Ca-PRI
The Cancer and Primary Care Research International Network

UNIVERSITY OF OXFORD

NUFFIELD DEPARTMENT OF PRIMARY CARE HEALTH SCIENCES
Medical Sciences Division

14th Annual Ca-PRI Conference:

Tailoring our approach to cancer control in primary care

Worcester College, Oxford
23rd and 24th March 2023

Contents

Welcome from Ca-PRI Executive Committee

A very warm welcome to Ca-PRI 2023. Our Oxford hosts have invested huge efforts in making this a memorable event, and we sincerely hope you enjoy all the conference has to offer. It seems a long time since we met face-to-face (4 years in fact), and it's so heartening to see the number of people who've committed to this meeting.

Ca-PRI was founded on a perceived need to bring the international primary care and cancer community together. From its outset, it's sought to promote collegiality and community-building. It's provided an opportunity for us to present our work in a dynamic, supportive environment. It's enabled us to form new collaborations, and give our work an international perspective. And we've had fun - lots of it - in host cities around the world.

A great deal has changed since we last met in person, and the effects of the pandemic are ongoing; many screening programmes are still getting back on their feet, there is a backlog of symptomatic patients, and services including oncology, imaging, surgery and psychological support are thinly stretched. Primary care remains at the front line of these challenges; our roles in improving cancer outcomes are as critical as ever – and all this at a time where our primary care colleagues are feeling the pinch of workforce shortages and growing patient demand.

The challenges, and opportunities for our research community are immense. What better time to consider 'Tailoring our approach to cancer control in primary care'. Over the next few days we'll consider how we can best focus our efforts, making use of advances in personalised medicine and the huge portfolio of primary care research we can now draw upon.

We'd like to thank Brian Nicholson, Sharon Tonner, Claire Friedemann Smith and the Oxford team for their amazing organisational efforts. Cancer Research UK have provided generous support and guidance for this and many previous meetings – this is so much appreciated. And, of course, we thank the Ca-PRI Executive (listed below) who've worked tirelessly over the years, planning our meetings, reviewing abstracts and contributing their valuable time to make Ca-PRI such a valuable community to belong to. But mostly, on behalf of the Ca-PRI Executive, we'd like to thank YOU for supporting this meeting, and keeping alive the rigour, academic interaction and fun we've experienced over the years. We hope you have a wonderful experience in Oxford, an ancient seat of learning with an outstanding tradition of cancer research. Please take time to share your ideas and expertise, build new collaborations, make new friends - and experience the joy of being back together again.

Professor David Weller & Dr Christine Campbell. Co-chairs, Ca-PRI

Ca-PRI Executive Committee

Professor Larissa Nekhlyudov, Professor Jon Emery, Professor Fiona Walter, Professor Peter Vedsted, Dr Rosalind Adam, Professor Li Li, Professor Richard Neal, Professor Henk van Weert & Dr Brian Nicholson.

Welcome from Oxford Organising Committee

May we extend our warmest welcome to Ca-PRI ~~2020~~ ~~2021~~ ~~2022~~ 2023! After years of planning, and some unforeseen circumstances, we are delighted to be your hosts in Oxford.

We have worked hard to pull together what we hope is a stimulating, relevant, and exciting programme of prominent guest speakers from around the world to illuminate topics germane to cancer control in primary care today. Your abstract submissions were of fantastically high quality employing novel methods and examining current evidence gaps. The packed programme of parallel talks, lightning talks, and workshops is testament to this.

We are proud to host Ca-PRI in Oxford. We've been building up our Cancer Research Group for almost ten years. Our strengths lie in health records data research, diagnostic reasoning, implementation, and clinical studies. Working closely across Oxford Cancer, through our new Precision Prevention, and Early Detection collaboration between the Primary Care Clinical Trials Unit and Oncology Clinical Trials Office, and friends and colleagues from the cancer community in the UK and abroad, we aim to build collaborative projects to enhance our approach to cancer detection.

We hope you enjoy the wonderful surroundings of Worcester College that come as part of the Oxford college experience. We look forward to meeting you, catching up, and sharing this time together.

Thanks again to David and Christine, and all the Ca-PRI Exec, for the invitation to host. Thanks to all of the members of the Nuffield Department of Primary Care Health Science's Cancer Research Group for your help with the preparations.

We hope you enjoy Ca-PRI 2023!

Brian, Claire, and Sharon

Dr Brian D Nicholson
Dr Clare Friedemann Smith
Dr Sharon Tonner
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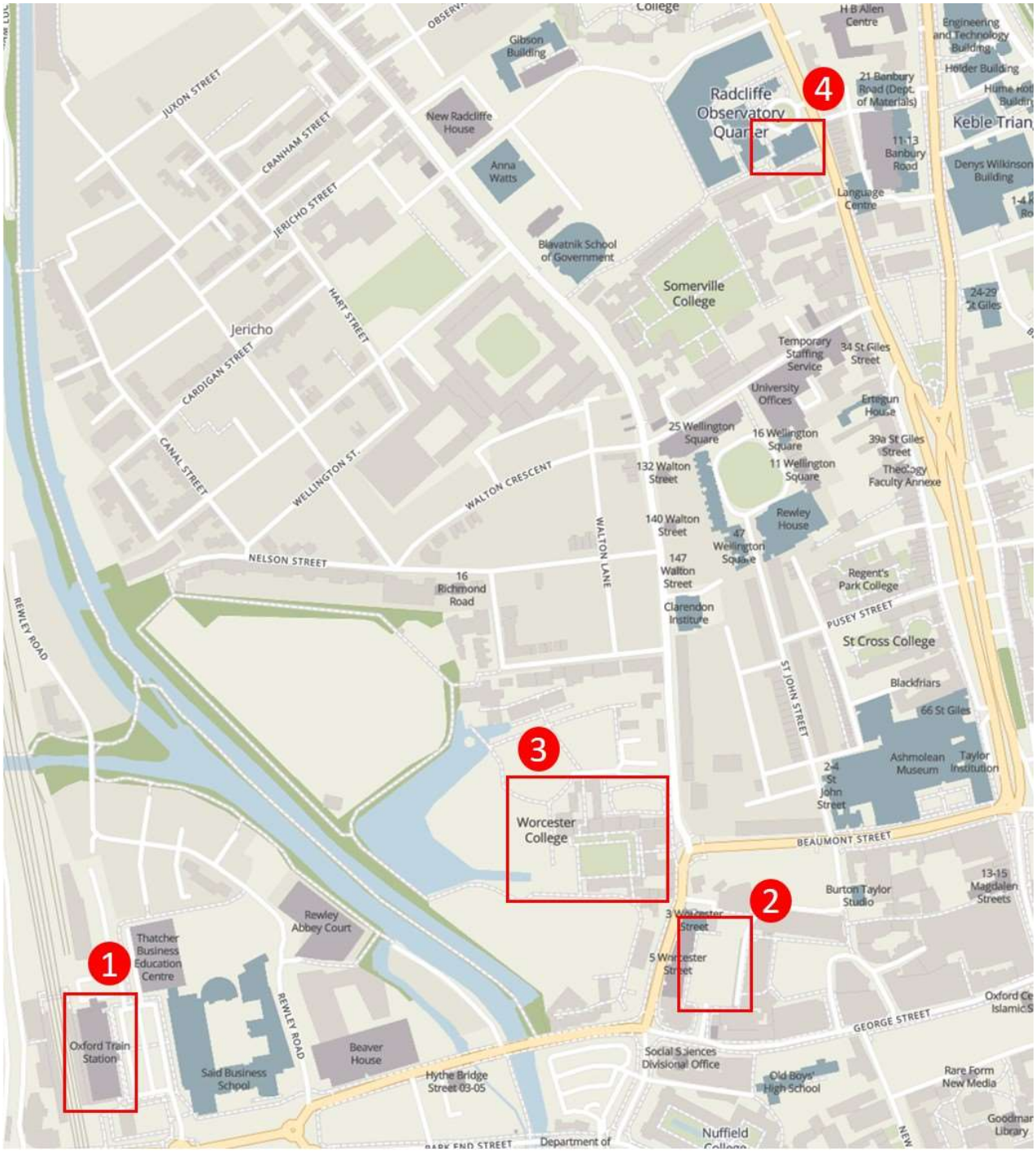
Map of Oxford



1. Oxford Train Station
2. Gloucester Green Bus Station
3. Worcester College
4. Nuffield Department of Primary Care Health Sciences

Map of Worcester College

Ca-PRI 2023 Programme Day Zero Wednesday 22nd March					
17:00	Uncomfortable Oxford History of Medicine Walking Tour (Meet Bridge of Sighs)				
18.30	Drinks Reception (Nuffield Department of Primary Care Sciences, Radcliffe Observatory Quarter – Walking Tour Endpoint)				
19:30	Early Career Researchers Networking Dinner (All Bar One, High Street)				
Day One Thursday 23rd March					
08:30	Coffee and Registration				
	SNSC Auditorium Chair: Brian Nicholson				
09.30	Welcome from Brian Nicholson and David Weller				
09.35	**Peter Johnson – The role of primary care in the NHS cancer strategy**				
10.00	**Anne Mackie - Are there challenges ahead for personalised cancer screening**				
10.25	**Ruth Etzioni - Informing the primary care conversation about multi-cancer early detection testing**				
10.50	**Oxford Cancer Patient and Public Involvement & Engagement Group**				
11.05	Q&A with Thursday Morning Keynote Speakers				
11.30	Coffee				
	Please note you can find the abstract for each presentation in the brochure under the abstract number listed as AXXX.				
11:50	**SNSC Auditorium** **Chair: Anna Dowrik** **Screening and Prevention 1** SMARTscreen to SMARTERscreen: using a novel SMS with narrative communication to increase uptake of the National Bowel Cancer Screening	**Nash Suite Room 1** **Chair: Larissa Nekhlyudov** **Survivorship 1** Psychosocial interventions that facilitate adult cancer survivors' reintegration into daily life after active cancer treatment: a	SNSC Seminar Room 1 Workshop (Early Diagnosis) - **Multi-cancer early detection (MCED) blood tests for**	**Nash Suite Room 2** **Chair: Li Li** **Context and Communication** Improving communication from secondary to primary care about treatment decisions for patients	**SNSC Seminar Room 2** **Chair: Christina Damhus** **Early Diagnosis - Awareness** Feasibility of a Targeted Intensive Community-based campaign To Optimise vague

	Program in Australia, learning from a pilot study **Jennifer McIntosh (A196)** Acceptability of risk-stratified bowel cancer screening: findings from 'At Risk', a qualitative study **Hannah Miles (A203)** Formulation of a clinical practice guideline on cancer screening for primary care **Martin Wong (A250)** GPs' use of symptomatic FIT and public barriers and enablers to completion. **Lindsay MacDonald (A278)** A screening ratio for the performance of GP participation in a national bowel cancer screening programme accounting for sociodemographic differences **Martina Slapkova (A295)** Significant predictive contribution of genetic propensity in integrated dynamic early detection models for colorectal cancer, encompassing core demographics, genetics, symptoms, biomarkers, medical history, and lifestyle: A UK Biobank prospective cohort study **Samantha Ip (A303)**	scoping review **Sarah Murnaghan (A199)** Fear of cancer recurrence at 2.5 years after a cancer diagnosis. Needs for care and contacts to general practice. **Linda Rasmussen (A200)** Experiences of Cancer Survivors with Lifestyle Care in General Practice: a Qualitative Study **Famke Huizinga (A277)** Effect of a care coordination intervention among vulnerable cancer survivors on patient-reported outcomes **Rikki Ward (A233)** Impact of the COVID-19 Pandemic on the Quality of Breast Cancer Survivorship Care in the United States (US) **Lauren Wallner (A251)** Development of the HT&Me intervention to support women with breast cancer to adhere to adjuvant endocrine therapy and improve quality of life **Elia Watson (A307)**	**symptomatic patients in primary care** - Sara Hiom (A310)	with cancer: development and pilot testing of a new format for written communication **Vera Hanewinkel (A213)** Which patient-related context information, available in primary care, should be taken into account during the treatment decision making process for older patients with cancer? **Mariken E Stegmann (A215)** Involving context information from the general practitioner in multidisciplinary meetings about older patients with cancer **Mathilde Tjepkema (A271)** Overview of primary care focused cancer research on the island of Ireland – a bibliometric analysis and two-country comparison **Benjamin Jacob (A297)** Evidence for access: systematic scoping review of access systems in general practice **Abi Eccles (A309)** 'Picking up the pieces': primary care practitioners' experiences of cancer care reviews: A qualitative study **Dipesh Gopal (A190)**	Cancer (TICTOC) symptom awareness and help-seeking in an area of high socioeconomic deprivation **Pamela Smith (A174)** Symptom appraisal and help-seeking in men with symptoms of possible prostate cancer: a qualitative study with an ethnically diverse sample in London **Ben Shaw (A182)** Assessing awareness of blood cancer symptoms and barriers to symptomatic presentation: Measure development and results from a population survey in the UK **Laura Boswell (A216)** Assessing the narratives on lung health using focus group discussions pre- and during-the PEOPLE-Hull lung health public media campaign **Julie Walabyeki (A299)** Lung cancer awareness in Hull pre-, during- and post-lung health public media campaign: The PEOPLE-Hull Study **Julie Walabyeki (A300)** Every Breast Counts: Supporting Black Women Along the Breast Cancer Journey **Elaine Goulbourne (A280)**
13.20	Lunch					
14.15	**SNSC Seminar Room 1** Workshop: **Write a Public and Patient Involvement (PPI)**	**Nash Suite Room 1** **Chair: Pradeep Virdee** **Early Diagnosis- Comorbidities**	**SNSC Seminar Room 2** Workshop (Survivorship): **Canadian Team to Improve Community-Based Cancer Care along the Continuum**	**Nash Suite Room 2** **Chair: Marcela Ewing** **Early Diagnosis - Epidemiology**	**SNSC Auditorium** Workshop (Early Diagnosis) - **International primary care data**	

	plan for your next grant application in 90 minutes (ish): with input from CATCH Study Collaborators – Sarah Bailey (A266)	Exploring the impact of comorbidities on cancer outcomes and routes to diagnosis; a retrospective cohort study **Bianca Wiering (A186)** Cancer diagnostics through Cancer Patient Pathways in patients with psychiatric disorders **Line Virgilsen (A194)** Diagnostic activities in general practice among colorectal cancer patients with comorbidity **Alina Falborg (A201)** The impact of anxiety or depression on early diagnosis of cancer – cohort study using linked electronic health records **Luke Mounce (A238)** Multimorbidity in patients with incident cancer **Luke Mounce (A286)** Understanding the diagnostic timeliness of cancer patients with pre-existing morbidities: What do different methodological approaches tell us? **Gary Abel (A290)**	**(CanIMPACT: Innovation for Cancer Care Research and Practice** – Bojana Petrovic (A258)	General Practice chest x-ray rate is associated with earlier lung cancer diagnosis and reduced all cause mortality: a retrospective observational study **Matthew Barclay (A205)** Characterising the volume and variation of multiple urgent suspected cancer referrals in England **Kirsten Roberts (A243)** Identifying barriers to help-seeking for rural residents experiencing symptoms of colorectal cancer and developing strategies to improve early-presentation and diagnosis: The RURALLY Study **Christina Dobson (A248)** Comparison between the 2014 and 2018 National Cancer Diagnosis Audits for England **Ruth Swann (A296)** Comparing primary care referrals and secondary care presentations with linked data from the National Cancer Diagnosis Audit **Ruth Swann (A253)** Cancer risk after a negative initial urgent suspected cancer referral – a national cohort study **Thomas Round (A304)**	**landscape - what does good data look like?** - Samantha Harrison (A312)
15.45	Coffee				
16.00	**SNSC Auditorium** **Chair: Claire Friedemann Smith** **Early Diagnosis – Lightening Talks** Public attitudes towards discussing possible cancer signs and symptoms in community pharmacies **Claire Champ (A277)**	**SNSC Seminar Room 1** Workshop (Survivorship): **How to study the role of primary care in cancer**	**Nash Suite Room 1** **Chair: Rosalind Adam** **Screening & Prevention – Lightening Talks** Improving Patient adherence to Cervical Screening Program in Primary Care – Clinical Audit **Negin Gholampoor (A192)**	SNSC Seminar Room 2 Workshop (Early Diagnosis) – **Cancer diagnosis in the old and frail, what is**	**Nash Suite Room 2** **Chair: Tanvi Rai** **Survivorship & Epidemiology - Lightening Talks** Distribution, Risk Factors, and Temporal Trends for Lung Cancer

	Healthcare use and clinical investigations before a diagnosis of ovarian cancer: a register-based study in Denmark **Isabella Rousing (180)** Colon Cancer in Patients with non-specific Symptoms – comparisons between diagnostic Paradigms **Christina Damhus (A195)** The cancer diagnostic interval in oral cavity, breast, colorectal, pancreatic, and skin melanoma: its variability and factors associated with its length **Patti Groome (A245)** Associations between smoking status, health literacy and the healthcare-seeking behaviour with potential lung cancer symptoms in the general population **Lisa Sætre (A255)** Repeat consultation activity for clinical features of possible cancer before, during and beyond the COVID-19 restrictions: retrospective cohort study from English primary care **Lucy Ross (A257)** Factors associated with events during the diagnostic process: a questionnaire survey among general practitioners **Gitte Bruun Lauridsen (A273)** Use of CT scanning and Chest X-rays of Danish Patients with Lung Cancer prior to Diagnosis from 2010 to 2020 **Soren Laursen (A275)** Planning a mixed-methods study of attendance for suspected cancer investigations in people with anxiety and/or depression **Sarah Price (A284)** Understanding the barriers and enablers of primary care remote consultations for suspected cancer among vulnerable populations – methodological considerations **Stefanie Disbeschl (A292)** Exploring patient engagement with their GP practice about lung health symptoms: The PEOPLE-HULL study **Alex Young (A298)** Are there differences by ethnicity in the recording of cancer features before diagnosis? An English longitudinal data-linked study **Tanimola Martins (A301)**	**care - interactive workshop about study designs, PROMs, process evaluations and more** – Daan Brandenbarg (A230)	Awareness and knowledge of HPV and its role in cervical screening among women in Great Britain: An online population-based survey **Laura Marlow (A207)** Equality, diversity and inclusion in lung cancer screening: a scoping review **Nicola Copper-Moss (A212)** Metabolically defined obesity phenotype and risk of colorectal adenoma **Li LI (A218)** Should I Take Aspirin (SITA): trialling a decision aid for cancer chemoprevention **Jennifer McIntosh (A219)** Investigating the influence of rural residency on the uptake of screening for breast, cervical and colorectal cancers in Scotland. **Lisa Iverson (A242)** Training Women to be Peer Health Coaches that Support Behaviour Change in Women at Risk for Cancer and Chronic Disease: A Mixed-Methods Evaluation of an Online Competency-Based Volunteer Peer Health Coaching Training Program **Jackie Bender (A244)** Using Concept Mapping to Understand Cervical Underscreening Amongst South Asian Women living in Ontario, Canada **Kimberly Devotta (A247)** Lessons learned from a community-based screening program: building trust and bringing prevention to those who need it the most. **Ana Natale-Pereira (A249)** Adapting Colorectal Cancer Screening Strategies to Achieve Success: Lessons learned from the	**the evidence and where do we go from here** – Daniel Jones (A311)	Incidence and Mortality: a global analysis **Junjie Huang (A261)** What is the evidence behind cancer care reviews, a British primary care support tool? A scoping review **Dipesh Gopal (A171)** A protocol for the development of a brief educational intervention to improve nurse knowledge and confidence to educate patients and carers pre-intravenous (IV) systemic anti-cancer therapy (SACT) in one cancer centre in Wales (UK). **Lenira Semedo (A197)** Identifying frailty in cancer survivors: patterns of cancer follow-up care and implications for personalized survivorship models **Sarah Murnaghan (A209)** Rural and Urban patients' Requirements and Experiences of OOH care after cancer (RUREO): A questionnaire study **Lisa Duncan (A232)** Understanding how survivors' experiences and needs after cancer treatment impact their health care utilization: A survey-administrative health data linkage study **Robin Urquhart (A235)** Risk of neurologic sequelae among survivors of non-malignant meningioma in the UK Biobank cohort **Diana Withrow (A241)** Follow-up cancer care in Danish general practice – perspectives from the General Practitioners **Dorte Jarbol (A247)** Comprehensive Cancer Screening, Prevention, Risk Reduction, and Survivorship: an

	A systematic review of prescribing patterns in general practice records prior to cancer diagnosis: interim results **Benjamin Jacob (A305)** A predictive model for colorectal cancer for symptomatic patients in primary care; extending the role of the faecal immunochemical test **Mike Cooke (A293)** Performance of screening tests for Esophageal Squamous Cell Carcinoma: a systematic review and meta-analysis **Junjie Huang (A26)**		COVID-19 pandemic**. Ana Natale-Pereira (A259)** Cancer screening participation within a highly urbanised region in the Netherlands: comparing the breast and colorectal cancer screening programmes of The Hague **Thom Bongaerts (A225)** Perceptions and beliefs of general practitioners in the cancer screening programmes in The Netherlands: a mixed-methods study **Thom Bongaerts (A270)** Pilot lung screening in Scotland: intervention development and interim findings **David Weller (A306)**		Integrated Model of Whole-Person Care **Christina Crabtree-Ide (A313)** Remote vs. face-to-face GP appointments: Availability and public preferences **Claire Champ (A279)** Primary care physicians' knowledge and confidence to provide cancer survivorship care; a systematic review **Larissa Nekhlyudov (A237)**
17.30	End				
18.30	Drinks reception – Main Quad, Worcester College				
19.30	Dinner – Dining Hall, Worcester College				
Day Two Friday 24th March					
8.30	Coffee				
9:00	**Nash Suite Room 1** Workshop (Survivorship): **Building PCP-Survivorship Linkages: A Shared Care Model of Cancer Survivorship and Community-Based Primary Care in the United States** – Christina Crabtree Ide (A256)	SNSC Seminar Room 1 Workshop (Early Diagnosis): **Why do General Practitioners sometimes not think of, or act on, a possible cancer diagnosis?** – Michael Harris (A267)	**SNSC Seminar Room 2** Workshop (Screening & Prevention): **The BETTER Program: An innovative evidence-based approach to support healthier behaviours that reduce the likelihood of cancers and other chronic diseases** – Carolina Fernandes (A217)	**Nash Suite Room 2** Workshop (Early Diagnosis): **Non-specific symptom pathways for cancer: how are they working and where are they going?** – Georgia Black (A214)	
10.30	Coffee				

10.50	**SNSC Auditorium** **Chair: Tani Martins** **Screening and Prevention - Oral 2** Psychological Impact of the Galleri Test (sIG(n)al): Protocol for a longitudinal evaluation of the psychological impact of receiving a cancer signal in the NHS-Galleri Trial **Laura Marlow (A206)** Young women with (pre)malignant cervical lesions in the northern Netherlands: what characterises them? **Marjolein Dielman (A220)** The Yorkshire Enhanced Stop Smoking (YESS) study: process evaluation of a personalised intervention to support smoking cessation within lung cancer screening – **Harriet Quinn-Scoggins (A224)** Reach and Effectiveness of an HPV Self-Sampling Intervention for Cervical Screening in Ontario, Canada **Kimberly Devotta (A246)** Implementation of social needs screening for newly diagnosed breast cancer patients: Evaluation of facilitators and barriers to successful screening. **Karen Freund (A254)** Exploring perceptions and experiences of NHS breast screening for socio-economically disadvantaged women in Yorkshire **Emily Lunn (A294)**	**SNSC Seminar Room 1** **Chair: Georgia Black** **Early Diagnosis - Perceptions** Understanding patient preferences for investigating cancer symptoms in general practice: A discrete choice experiment **Brent Venning (A204)** Provider perceptions of interventions to encourage prevention and early diagnosis of cancer after a negative diagnosis **Ruth Evans (A211)** Establishing the priorities for electronic safety-netting tool features: A qualitative interview and Delphi study with PPI input. **Claire Friedemann Smith (A222)** The ThinkCancer! Intervention: results and lessons learned from a phase II feasibility trial in Wales **Richard Neal (A291)** Patient experience and acceptability of using the faecal immunochemical test when presenting with symptoms in primary care: a qualitative interview study **Natalia Calanzani (A308)** The impact of electronic risk assessment tools (eRATs) for early cancer diagnosis in general practice on GP workload and patient 'flow' during consulting sessions **Gary Abel (A290)**	**Nash Suite Room 1** **Chair: Fiona Walter** **Survivorship – Oral 2** The NASCAR+ Study - a data-linkage study of the association between travelling time from home to the cancer centre and receipt of post-diagnostic hospital cancer care **Peter Murchie (A198)** How Cancer Survivors' Challenges After Treatment Impact Transition to Primary Care-led Follow-up Care **Jessica Vickery (A202)** Characterizing oncology and primary care involvement in breast cancer survivorship care delivery in the United States (US) **Archana Radhakrishnan (A231)** Factors influencing implementation of a multicomponent intervention to improve care coordination for vulnerable cancer survivors with multiple comorbidities **Rikki Ward (A235)** Duplication and Fragmentation in Breast Cancer Survivorship Care across Primary Care and Oncology in the United States (US) **Lauren Wallner (A252)**	**Nash Suite Room 2** **Chair: Eliya Abedi** **Early Diagnosis - Prediction** Validation of a diagnostic prediction tool for colorectal cancer: a case-control replication study **Elinor Nemlander (A181)** A machine learning tool for identifying non-metastatic colorectal cancer in primary care **Elinor Nemlander (A188)** Full BLOOD count TRends for colorectal cAnCer deteCtion (BLOODTRACC): development of dynamic prediction models for early detection of colorectal cancer using trends in blood tests from primary care **Pradeep Virdee (A183)** BMI and HbA1c as metabolic markers for pancreatic cancer **Agnieszka Lemanska (A189)** Prediction Algorithm for Gastric Cancer in a General Population: a validation study **Junjie Huang (A282)** Risk of cancer following a low haemoglobin test result by ethnic group – the EPIC study **Liz Down (A276)** Applying a genetic risk score for colorectal cancer to patients consulting in primary care with high or low risk colorectal cancer symptoms: a cohort study in the UK Biobank **Bethan Rimmer (A287)**
12.20	Lunch			

SNSC Auditorium	
1.20pm	Rikke Sand Andersen and Marie Louise Tørring **Crafting Cancer Anticipations: Anthropological perspectives on cancer diagnostic experiences** – book launch – Introduced by Sue Ziebland
2.00pm	**Prize talks** **Chair: David Weller** Safety netting in language discordant consultation: does it translate? A qualitative study of healthcare interpreters' perspectives on safety netting in primary care consultations. **Eleanor Southgate (A288)** CRISP: developing a colorectal cancer risk prediction tool for use in primary care using the MRC Framework for Complex Intervention **Jennifer McIntosh (A281)** A randomised controlled trial of a digital intervention (Renewed) to support symptom management, wellbeing and quality of life in cancer survivors **Kat Bradbury (A283)**
2.45pm	Coffee
3.05pm	**Eva Grunfeld** – outstanding career closing plenary – Introduced by Eila Watson
3.35pm	Closing Remarks – David Weller

Plenary Biographies

Professor Peter Johnson

Peter Johnson is Professor of Medical Oncology at the University of Southampton and since 2019, National Clinical Director for Cancer at NHS England. His work at NHSE covers the wide range of policy aimed at improving cancer survival, particularly the earlier and faster diagnosis of cancer, as well as its treatment.

He was previously Chief Clinician for Cancer Research UK from 2008 to 2017, and a Trustee of the National Cancer Research Institute. His research interests are in applied immunology and immunotherapy; lymphoma biology and precision medicine, and clinical trials. He has been the Chief Investigator for trials ranging from first in human novel antibody therapeutics to international randomised studies. He has published extensively on cancer biology and treatment, on novel biomarkers and their clinical evaluation.

Professor Anne Mackie

Professor Anne Mackie is Director of Programmes for the UK National Screening Committee which oversees 12 population screening programmes across all four UK nations.

Professor Mackie qualified in Medicine from Kings College London and has worked in Public Health for 20 years across London and the South East. Previous roles have included medical director of the National Specialist Commissioning Advisory Group, Director of Public Health in Kent, Director of Public Health in South West London and Director of Public Health for London SHA.

Dr Ruth Etzioni

Dr Ruth Etzioni is a Professor in the Division of Public Health Sciences at Fred Hutch Cancer Center, where she holds the Rosalie and Harold Rea Brown Chair.

Dr Etzioni is also an affiliate Professor of Biostatistics and Health Services at the University of Washington. She leads a research program on evidence generation for cancer decision making and policy development, with particular focus on novel cancer screening tests. Her work has provided authoritative estimates of the risk of overdiagnosis in breast and prostate cancer screening and has helped to reconcile apparently conflicting trial results around PSA screening for prostate cancer. She is currently leading the American Cancer Society's revision of their national guidelines for prostate cancer screening.

Dr Etzioni is a recipient of an NCI Outstanding Investigator Award to generate evidence around multi-cancer early detection tests and novel cancer imaging tests. She is the founder of FHIND Cancer @ Fred Hutch, a group of investigators conducting multi-disciplinary research in novel diagnostics for cancer with the goal of supporting precision oncology research, and a fellow of the American Statistical Association.

Professor Rikke Sand Andersen

Professor Rikke Sand Andersen is an anthropologist and professor with special responsibilities in the Department of Public Health, Research Unit for General Practice at the University of Southern Denmark and in the Department of Anthropology at Aarhus University.

She is the former editor-in-chief of the Scandinavia-based medical anthropology journal *Tidsskrift for Forskning i Sygdom og Samfund*, and board member of Medical Anthropology Europe–European Association of Social Anthropologists (MAE-EASA). She has written extensively on cancer diagnostics, the production of cancer symptoms and healthcare seeking. She has edited several special issues on cancer, embodied sensations and healthcare seeking, including a special issue on medical semiotics for *Medical Anthropology*. She is currently initiating research on 'solo living' and welfare exploring how notions of solitude, relatedness and social change may be understood through the diseased body.

Dr Marie Louise Tørring

Dr Marie Louise Tørring is trained as an anthropologist and epidemiologist, and she holds a position as associate professor and research programme director in the Department of Anthropology of Aarhus University.

For the past decade she has conducted epidemiological and anthropological research on contemporary cancer transitions, focusing in particular on the shaping of the Danish cancer control plans of the 2000s. She is a board member of Dansk Selskab for Sundhedsantropologi (SundAntro), coordinator of the Master's Degree Program in the Anthropology of Health, and currently steers the interdisciplinary research project CAVA: *Comparing Adverse Vaccine Event Reporting – an interdisciplinary study of early 21st Century digital health citizenship in Denmark*. She is currently editing a special issue on 'patient reported outcomes' for *Tidsskrift for Forskning i Sygdom og Samfund.*

Dr Eva Grunfeld

Dr. Grunfeld is a leader in cancer health services and outcomes research. Her research focuses on evaluation and knowledge translation of cancer health services, covering the entire spectrum of cancer control activities from prevention to end-of-life care. She is internationally recognized for being in the vanguard of research on cancer survivorship, having led the first and some of the largest multi-centre trials, influencing clinical practice guidelines and policies internationally.

Dr. Grunfeld has over 170 peer-review publications, holds many peer-review grants as Principal Investigator, and has served on many committees to further the goals of cancer control in Canada and internationally. The leadership roles she has held include Chair of the Institute Advisory Board for CIHR's Institute for Cancer Research; Giblon Professor and Vice-Chair Research with the Dept. of Family and Community Medicine, University of Toronto; Founder of Cancer Outcomes Research at Dalhousie University; and Physician Scientist and Director of the Knowledge Translation Research Network with the Ontario Institute for Cancer Research.

Dr. Grunfeld holds a medical degree from McMaster University and doctoral degree from the University of Oxford. She was appointed as an Officer of the Order of Canada in December 2022

Lightning talks

171 What is the evidence behind cancer care reviews, a British primary care support tool? A scoping review

Dipesh P. Gopal[1], Tahania Ahmad[1], Nikolaos Efstathiou[2], Ping Guo[2], Stephanie J. C. Taylor[1]

[1]Centre for Primary Care, Wolfson Institute of Population Health, Barts and the London School of Medicine and Dentistry, Queen Mary University of London, London, United Kingdom. [2]School of Nursing and Midwifery, Institute of Clinical Sciences, University of Birmingham, Birmingham, United Kingdom

Objectives

A "cancer care review" (CCR) is a conversation between an adult recently diagnosed with cancer and their primary care practitioner, either general practitioner (GP) or practice nurse. They were introduced to the UK in 2003. Recent review articles have evaluated similar care assessments but there has been no evaluation of CCRs. This scoping review aims to answer the following research questions:

1. What methodology and validated outcome measures have been used to evaluate CCRs?
2. What is the evidence that CCRs improve quality of life or symptoms?
3. What are the views of patients, their carers, and healthcare professionals on CCRs?

Method

A scoping review was centred on a population of adults who are living with and beyond cancer, a concept of cancer care reviews, and context of English language primary and secondary quantitative and qualitative research. English language was specified since cancer care reviews are performed in the UK only. Six databases (Medline, Embase, PsychINFO, Scopus, Web of Science, Google Scholar) were searched from 2000 to March 2022. Records were screened initially at title and abstract level by DPG and TA independently before screening at full text level.

Results

Of 4133 articles, ten met full text criteria. There were no papers on evaluating CCRs and showing clear improvement in patient symptoms or quality of life. GPs and practice nurses felt CCRs were a tick-box exercise, and 53-60% found CCRs useful for clinical care. They had inadequate time to deliver cancer care whilst others found inadequate care coordination between primary care and secondary care which was echoed by patients. Interviews with patients found few recalled CCRs and those that did, did not find CCRs helpful. Partners of patients would welcome CCRs to raise personal health concerns.

Conclusions

There was no research evaluating cancer care reviews via rigorous methodology or using validated outcomes and no research measuring their effects on patient symptoms and quality of life. Further studies should aim to identify ways to evaluate CCRs and the effect of CCRs on patients. Support of caregivers and family members in the context of primary care would be welcomed. Newer qualitative

studies with stakeholders would identify difficulties in delivering CCRs considering the COVID-19 pandemic, changes in workforce and increased patient demand.

180 Healthcare use and clinical investigations before a diagnosis of ovarian cancer: a register-based study in Denmark

Isabella Gringer Rousing[1,2], Peter Vedsted[1,3], Peter Hjertholm[1], Per Kallestrup[1,2], Marie-Louise Ladegaard Baun[1], Line Flytkjær Virgilsen[1]

[1]Research Unit for General Practice, Aarhus, Denmark. [2]Department of Public Health, Aarhus University, Aarhus, Denmark. [3]Department of Clinical Medicine, Diagnostic Center, Silkeborg Regional Hospital, Aarhus University, Silkeborg, Denmark

Objectives

Ovarian cancer (OC) is associated with a poor prognosis, which calls for earlier diagnosis. This study aimed to analyse the health care use in primary care and at hospitals among women with OC compared to non-cancerous women to identify a window of opportunity for earlier diagnosis.

Method

This nationwide register-based observational cohort study included all Danish women aged ≥ 40 years who were diagnosed with a first-time OC or borderline ovarian tumour in 2012-2018 and with no previous cancer diagnosis (n=4,255). For each case, ten non-cancerous women were identified (n=42,550). We estimated monthly incidence rate ratios using a negative binomial regression model to assess the use of health care services. We calculated risk ratios of having multiple contacts to general practice before a diagnosis using a binary regression model.

Results

Cases had statistically significantly higher contact rates to general practice from five months prior to the diagnosis compared to references. From six to eight months prior to diagnosis, an increased use of transvaginal ultrasound and gynaecologist was seen for cases compared to references.

Conclusions

Increased healthcare use was seen relatively closely to the time of diagnosis for women with OC. This indicates a narrow window of opportunity for a timelier diagnosis. Still, the use of specialised assessment increased at six to eight months before the diagnosis. More focus on safety-netting by the general practitioner may be pivotal.

192 Improving Patient adherence to Cervical Screening Program in Primary Care – Clinical Audit

Negin Gholampoor[1], Amir Hossien sharif[1], Nishat Ahmad[2]

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Objectives

The asymptomatic nature of cervical cancer in the early stages highlights the importance of effective patient encounters to support adherence to the cervical screening program (CSP). This study evaluated the CSP encountering performance of three GP practices to identify any gaps in the system that has resulted in low CSP adherence rate. The aim was to improve the standard of care delivered, specifically the cervical screening adherence rate to reduce cervical cancer mortality by the early diagnosis and prevention.

Method

Eligible women for the national cervical screening programme aged between 25-64 years old were identified across three GP practices in the south Birmingham region. Women with out-of-date screening tests and those without a recorded smear test were identified. Among the patients with outstanding smear tests, the date of the last smear was recorded if they ever had a smear in the past. Additionally, the number of GP attempts for each patient and the approach for reminding patients of their outdated smear test were recorded. These data were collected from EMIS over one month during summer 2022.

Results

In total 1972 patients were eligible for the NHS cervical screening program across three GP practices. No practice has reached the national target for cervical screening of females aged 20-49. Among patients with out-of-date smear testing (n= 496), around 20% of patients had never been contacted by their GP about their smear test. Of those who had never been contacted by their GP about their smear test, 73% never had a recorded smear test done. GP attempts included a mix of telephone, letter, and verbal reminders in an appointment for another medical reason. Important gaps that could have led to this result were identified and strategies to tackle such gaps were implemented and are discussed in this study.

Conclusions

A regular and proactive system to improve patient adherence to CSP is necessary for an effective screening program which includes education and regular reminders about the importance of cervical screening program. This would potentially increase the cervical smear adherence rate, hence reducing long-term mortality by early diagnosis and management of cervical cancer.

195 Colon Cancer in Patients with non-specific Symptoms – comparisons between diagnostic Paradigms

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Objectives

In Denmark, the Cancer Patient Pathway for Non-Specific Signs and Symptoms (NSSC-CPP) has been implemented with variations: in some areas, general practitioners (GPs) do the initial diagnostic work-up (GP paradigm); in other areas, patients are referred directly to hospital (hospital paradigm). There is no evidence to suggest the most beneficial organisation. Therefore, the aim of this study is to compare the occurrence of colon cancer and the risk of non-localised cancer stage between the GP and hospital paradigms.

Method

In this registry-based case-control study, we applied multivariable binary logistic regression models to estimate the odds ratios (OR) of colon cancer and non-localised stage associated with the GP paradigm and hospital paradigm. All cases and controls were assigned to a paradigm based on their diagnostic activity (CT scan or CPP) six months prior to the index-date. As not all CT scans in the control group were part of cancer work-up and we investigated the impact of varying the fraction of these, which were randomly removed using a bootstrap approach for inference.

Results

The GP paradigm was more likely to result in a cancer diagnosis than the hospital paradigm; ORs ranged from 1.91-3.15 considering different fractions of CT scans as part of cancer work-up. No difference was found in cancer stage between the two paradigms; ORs ranged from 1.08-1.10 and were not statistically significant.

Conclusions

Patients in the GP paradigm were diagnosed with colon cancer more often, but we cannot conclude that they are more likely to be diagnosed at advanced stage than patients in the hospital paradigm.

197 A protocol for the development of a brief educational intervention to improve nurse knowledge and confidence to educate patients and carers pre-intravenous (IV) systemic anti-cancer therapy (SACT) in one cancer centre in Wales (UK).

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Objectives

To investigate nurses' knowledge, confidence and experiences of delivering pre-IV systemic anti-cancer therapy (SACT) patient education.

To develop and test a brief educational intervention to improve nurses' knowledge and confidence to educate patients and carers pre-IV SACT.

Method

The project will be conducted in three stages and follow the Medical Research Council Framework for developing interventions. Stage 1 will gather information through observations of nurses delivering patient education (n=30), nurse questionnaires (n=30) and interviews (n=30). Stage 2 will develop the intervention content informed by stage 1 findings, social learning theory and published literature. Stage 3 will deliver the tailored intervention (n=30), co-produced with cancer care experts, and project partners. A single group pre-post design will investigate changes in nurse knowledge and confidence. Data will be descriptively reported and thematically analysed. A published checklist will report the intervention.

Results

A needs-led intervention will be developed to help nurses educate patients pre-cancer treatment. Findings from this study will help find out how the intervention may be optimised in the future. Findings will help develop recommendations in cancer treatment to support nurses in their educator role. This may also benefit patients using the service.

Conclusions

Optimising nurse provision of patient education may improve patient self-management of cancer treatment and side effects. It may improve patient experience and contribute to safe cancer treatment.

Other category

207 Awareness and knowledge of HPV and its role in cervical screening among women in Great Britain: An online population-based survey

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Objectives

HPV primary testing and concomitant extensions to screening intervals are being implemented around the world. Where this has not been clearly communicated, there has been public backlash. We explored HPV awareness and knowledge about primary HPV screening in Great Britain where it has been in place for several years. Scotland and Wales recently extended screening intervals from 3 to 5 years for 25-49 year-olds; England is yet to make this change.

Method

Women aged 18-70 (n=1,995) were recruited by YouGov from their online panel in August 2022. The weighted sample was population representative by age, region, education, and social grade. We measured HPV awareness, knowledge (excluding those unaware of HPV) using eight true/false items, and understanding of the role of HPV testing in cervical screening. We also assessed demographic characteristics and screening status.

Results

Overall, 76% of women were aware of HPV of whom 64% had heard about it in the context of cervical screening and 71% in the context of HPV vaccination. When asked to identify the statement describing how cervical screening works, only 12% correctly selected the statement reflecting HPV primary screening (13% in screening-eligible women). Mean knowledge score was 3.7 out of 8 (SD=2.2). Most participants who were aware of HPV knew that an HPV-positive result does not mean a woman will definitely develop cervical cancer (73%) but far fewer were aware of the slow timeline for HPV to become cancer (19%).

Conclusions

Even though HPV testing has been used in the screening programme in Britain since 2011, only 3 in 4 women are aware of the virus, and knowledge of HPV primary screening is very low, even among women of screening age. This points to continued need for awareness-raising campaigns to ensure informed choice about screening and mitigate public concern when screening intervals are extended.

209 Identifying frailty in cancer survivors: patterns of cancer follow-up care and implications for personalized survivorship models

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Objectives

As cancer survivors age, they may become frail, resulting in complex needs better served by alternative and personalized care models. No research has examined health services use in frail cancer survivors or quantified frailty within a Canadian cancer survivor population. This study aimed to fill this gap. Specifically, the objectives were:

1) To estimate the burden of frailty amongst a Nova Scotia (NS) cancer survivor cohort and determine how frailty differs by patient characteristics.

2) To identify cancer-related follow-up care visit patterns and how they differ between non-frail and frail cancer survivors and other patient characteristics.

Method

We performed retrospective analyses using population-based linked administrative data. From the provincial cancer registry, we identified cancer survivors diagnosed with stage I-III breast, colorectal, gynecologic, or prostate cancer between Jan 2006-Dec 2013. Using linked datasets, we estimated the burden of frailty amongst this population. We used descriptive statistics and logistic regression to describe how frailty differed by patient characteristics. Negative binomial regression compared the annual follow-up visit rate between non-frail and frail survivors. We used descriptive statistics and partial proportional odds to describe survivors who had either a low, medium, or high amount of follow-up visits provided by a primary care physician (PCP).

Results

Within the cancer survivor cohort (n=10,176), the prevalence of frailty was 17.7%. Compared to non-frail survivors, frail cancer survivors had a 28% higher annual cancer-related follow-up visit rate (incident rate ratio [IRR] 1.28, 95% CI 1.23-1.33). Of 10,000 survivors with at least one cancer-related follow-up visit, 2,487 (24.9%) had a high percentage (≥73%) of PCP visits. Compared to non-frail cancer survivors, frail survivors had 58% greater odds of having a high (versus low-medium) or medium-high (versus low) proportion of PCP visits (OR 1.58, 95% CI 1.43-1.76).

Conclusions

This study was the first to estimate frailty amongst Canadian cancer survivors. Compared to non-frail cancer survivors, frail survivors had high usage of follow-up care and a higher proportion of PCP follow-

up visits. Canada has been slower than some countries to personalize survivorship care; frailty may be one way to tailor cancer follow-up care. Primary care is likely suitable for frail survivors' follow-up. Communication between oncologists and PCPs regarding the transition of follow-up care for this group of cancer survivors will be necessary. Future research should investigate the use of multidisciplinary primary care models amongst frail cancer survivors in Canada.

212 Equality, diversity and inclusion in lung cancer screening: a scoping review

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Objectives

Lung cancer is the leading cause of cancer-related mortality worldwide, with most cancers being detected at a late stage. Early diagnosis through targeted screening is paramount for improving survival outcomes. Despite this, uptake of lung cancer screening (LCS) is often poor, particularly among those who are at higher risk, such as current smokers and people living in areas of higher socioeconomic deprivation. This review aims to map and identify gaps in the literature regarding equality, diversity, and inclusion (EDI) in the design, implementation and evaluation of LCS interventions so far.

Method

The review was conducted using the Arksey and O'Malley (2005) methodological framework and updated scoping review guidance. Keywords and medical subject headings for lung cancer screening were searched in four bibliographic databases from 2010 onwards. Peer-reviewed articles and policy documents were included if they contained data on low-dose Computed Tomography screening for lung cancer in community settings in high-income countries. Qualitative data was thematically analysed according to an initial coding framework based on the UK National Institute for Health and Care Research EDI strategy, and further shaped by feedback from public contributors.

Results

Evidence on LCS in high-income countries is rapidly emerging. Existing studies have identified several practical and psychological factors which influence participation in LCS internationally, however, few studies focus specifically on ways to support and empower underserved populations. Furthermore, there is a wide variation in data capture on diversity, such as a lack of reporting on participation and screening outcomes for minority ethnic and gender groups. The analysis is ongoing and further themes will be presented at the conference.

Conclusions

Tailored community-based approaches are imperative for ensuring LCS reduces, rather than widens existing inequalities in lung cancer outcomes. Further research is required to explore the diverse factors influencing LCS participation at different stages of the LCS pathway, and to assess equity of effects at each stage. Studies need to report and monitor reach of underserved populations, involving communities and stakeholders in the co-creation and evaluation of tailored implementation strategies.

218 Metabolically defined obesity phenotype and risk of colorectal adenoma

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Objectives

Insulin resistance resulting from long-term energy imbalance is a critical pathway underlying the link between obesity and colorectal neoplasia (CN). However, a sizable proportion of the general population is phenotypically obese but metabolically 'healthy' – i.e., with normal metabolic profile, or phenotypically lean but metabolically 'unhealthy'. Whether metabolically defined obesity phenotype may better capture obesity-associated CN risk than the conventional measures such as BMI or waist-to-hip ratio (WHR) alone remains largely unexplored. In this study, we define metabolic obesity phenotype by the combination of homeostasis assessment of insulin resistance (HOMA-IR) and central adiposity as assessed WHR, and examined its association with risk of colorectal adenoma (CA) and plasma levels of inflammatory biomarkers.

Method

Our analysis included 1,271 individuals undergoing routine colonoscopy at University Hospitals Cleveland Medical Center. Of these, 348 patients who have new and pathologically confirmed CA are considered as cases, and the remaining 923 patients free of any lesions are considered as controls. HOMA-IR and WHR are dichotomized using the median values of control subjects who did not use anti-diabetic medications. We group the participants into 4 metabolic obesity phenotype categories using the combination of HOMA-IR and WHR. We performed multivariate logistic regression models to assess risk of CA associated with metabolic obesity phenotype, and linear regression models to assess the relationship of metabolic obesity phenotype with inflammatory biomarkers.

Results

WHR, HOMA-IR, and the metabolic obesity phenotype each was statistically significantly associated with risk of CA in the entire study population and among the 1,107 individuals that did not use diabetes medication (Table 1). The HOMA-IR/WHR metabolic obesity phenotype however showed much stronger association with OR of 2.95 (95% CI = 1.59 – 5.52) for those with high HOMA-IR and high WHR than those with either high WHR (OR = 1.75; CI = 1.21-2.54) or high HOMA-IR (OR = 1.55; CI = 1.13 – 2.13) alone. The metabolic obesity phenotype-CA association is independent of HOMA-IR or WHR. The metabolic obesity phenotype is also statistically and significantly associated with IGF1, IGFBP1, IGFBP3, adiponectin, leptin, leptin/adiponectin ratio, IGF1/IGFBP1 ratio (all P's < 0.01) and marginally associated with IGF1/IGFBP3 (p = 0.07).

Conclusions

Our results indicated that metabolic obesity phenotype defined by insulin resistance measure HOMA-IR and the central obesity measurement WHR is a much stronger predictor of CA risk as compared to HOMA-IR or WHR. Metabolically defined obesity phenotype may better capture risk of colorectal neoplasia associated with obesity in the general population.

219 Should I Take Aspirin (SITA): trialling a decision aid for cancer chemoprevention

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Objectives

Aspirin reduces a person's risk of developing and dying from bowel cancer by 25% and 33% respectively. Australian primary care guidelines recommend that all people aged 50-70 consider taking aspirin for 2.5 to 5 years to reduce their risk of colorectal cancer (CRC). A randomised controlled trial (RCT) was conducted and aimed to test the efficacy of a health consultation and use of a decision aid, to present the benefits and harms of taking low-dose aspirin, on two co-primary outcomes including informed decision-making at one-month and uptake of aspirin at six-months.

Method

This was a phase II efficacy, RCT was set in six general practices in metropolitan and regional Victoria, Australia. The intervention included a consultation presenting the aspirin decision aid. The control group included a talk presenting a brochure on ways to reduce CRC risk. A sample of 50–70-year-olds was consecutively recruited when attending their general practitioner.

Results

261 participants were randomised (129 intervention, 132 control). There was an 8.8% increase in informed choice at 1 month (97.5% CI for difference, odds ratio (OR) 2.42 (97.5% CI: 0.92 to 6.36) p=0.040). There was no difference in aspirin use at six months between arms (-3.3% difference between the study arms, 97.5% CI for difference OR:0.72 (97.5% CI: 0.29 to 1.77; p=0.408). For the complete case analysis (n=113 intervention, 118 control), there was a 10.9% (97.5% CI: 2.3 to 19.5%) absolute increase in informed choice at one month in the intervention arm [OR:2.76 (97.5% CI: 1.03 to 7.42 p=0.021].

Conclusions

This trial of a decision aid to implement the aspirin guidelines to prevent CRC and other chronic illnesses shows that a decision aid used in general practice may increase informed choice and facilitate discussions between patients and their general practitioners. Due to the changing evidence about taking aspirin for the primary prevention of CRC and cardiovascular disease in the US during this trial, GPs might find the decision aids to be confusing. Until we have clearer evidence about taking aspirin for the primary prevention of cancer the decision aids might not be useful for further implementation into clinical care.

225 Cancer screening participation within a highly urbanised region in the Netherlands: comparing the breast and colorectal cancer screening programmes of The Hague

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Objectives

The Netherlands hosts two population-based cancer screening programmes (CSPs) targeting people of 50 years and older, aiming at breast and colorectal cancer. For a CSP to be effective, high participation rates and outreach to the populations at risk are essential. People living in highly urbanised areas participate less in CSPs. The aim of this study was to gain insight in the participation rates in a highly urbanised region over a longer time period, and to compare outreach of an long standing CSP (breast), with a recently implemented CSP (colorectal).

Method

We conducted a retrospective observational study based on the participation data of the regional screening organization, linked to the cancer incidence data derived from the Netherlands Cancer Registry, between 2005 to 2019, in the city of The Hague. Attendance groups were defined as attenders (attending >50% of the invitations) and non-attenders (attending ≤50% of the invitations), and were mutually compared. Neighbourhood socioeconomic status (SES)-score was categorised into quartiles. The number of cancer diagnoses and stage were studied in the group attenders and non-attenders.

Results

The databases contained 106.377 unique individuals on the breast CSP, and 73.669 on the colorectal CSP. Non-attendance at both CSPs was associated with living in a neighbourhood with a lower socioeconomic status and as a counter effect, also associated with a more unfavourable, relatively late-stage, tumour diagnosis. When combining the results of the two CSPs, our results imply high screening adherence over time. Women who did not participate in both CSPs were older, and more often lived in neighbourhoods with a lower SES-score.

Conclusions

Since low screening uptake is one of the factors that contribute to increasing inequalities in cancer survival, future outreach strategies should be focussed on engaging specific non-attending subgroups.

232 Rural and Urban patients' Requirements and Experiences of OOH care after cancer (RUREO): A questionnaire study.

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Objectives

Disparities in cancer outcomes between rural and urban dwellers are well-established. Studies report poorer survival after a cancer diagnosis among rural individuals compared with their urban counterparts. Due to ongoing symptoms and treatment side-effects, individuals with cancer make increased use of emergency and out-of-hours (OOH) medical services. The aim of this study was to compare the use of OOH and unscheduled medical services between urban and rural cancer patients. We also aimed to explore beliefs, attitudes, and behaviours relating to OOH services and investigate whether these differed between urban and rural dwellers.

Method

A cross-sectional questionnaire study was conducted in Northeast Scotland. The questionnaire was sent to all individuals diagnosed with cancer within NHS Grampian within the preceding 12 months (identified through the NHS Grampian Cancer Pathway Clinical Database). The questionnaire was designed with input from health psychologists on theoretical models and collected quantitative and qualitative data. The questionnaire asked about the distance to and use of medical services, and patients' capability, opportunity, and motivation for accessing OOH services. Ordinal (proportional odds logistic) regression compared urban and rural Likert item responses relating to attitudes about OOH. Qualitative data was analysed using content analysis.

Results

490 individuals (19.2%) returned the questionnaire. There were no significant differences in OOH service use between urban/rural respondents. Rural respondents were more likely to disagree that OOH services were close by (Adj. OR 3.32, 95% CI 2.19-5.07, $p<0.001$) and less likely to disagree that where they lived made it difficult to access OOH care (Adj. OR 0.27, 95% CI 0.18-0.41, $p<0.001$). Rural respondents were *not* more likely to agree that their decision to contact OOH would be affected by how far the service was (Adj. OR 0.91, 95% CI 0.60-1.35). Urban and rural respondents reported similar barriers to contacting services.

Conclusions

This study collected rich data about patterns and behavioural determinants of OOH service use among cancer patients in Grampian, Scotland. While rural patients reported they had to travel longer distances to services, we did not find systematic differences between urban and rural dwellers in the self-reported contact with OOH services, or in the behavioural determinants of service use (i.e., participants' capability, opportunity, motivation, self-efficacy, and knowledge about services). Both rural and urban

participants reported the same barriers to accessing OOH services, which will be discussed in detail in this presentation.

236 Understanding how survivors' experiences and needs after cancer treatment impact their health care utilization: A survey-administrative health data linkage study

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Objectives

The objectives of this study are to examine how cancer survivors' (1) ongoing physical, emotional, and practical needs and (2) receipt of psychosocial services and supports after treatment impact healthcare utilization in the survivorship period.

Method

The "Cancer Transitions Survey" is a population-based survey examining survivors' experiences and needs after completing cancer treatment. It was administered by the Nova Scotia Cancer Registry (NSCR) as part of a national study, the largest of its kind in Canada. Respondents included Nova Scotian survivors of breast, melanoma, colorectal, prostate, hematologic, and young adult cancers who were 1-3 years post-treatment. Survey responses were linked to cancer registry, physicians' claims, hospitalization, and ambulatory care data. The data linkage provided a full four years of healthcare utilization data for each cancer survivor, beginning one year after their cancer diagnosis.

Results

1557 survivors responded to the survey and had their data linked. Collectively, breast, colorectal, and prostate cancer survivors represented 78.5% of survey respondents. Most respondents (65.3%) were 65 years of age or older and 69.8% had an existing co-morbid condition. Regression analyses are now being conducted to investigate whether the type and magnitude of post-treatment needs, and whether the services and supports received (e.g., support groups, counselling, survivorship care plans), impact health care utilization in the survivorship period, including transition to primary care.

Conclusions

This study represents a unique opportunity to link self-reported needs and use of non-physician services and supports to routinely collected administrative health data. Findings will inform more personalized approaches to follow-up care.

237 Primary care physicians' knowledge and confidence to provide cancer survivorship care; a systematic review.

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Objectives

To systematically review existing literature on PCPs' knowledge and confidence in providing cancer survivorship care and to characterize these outcomes by survivorship care domains.

Method

PubMed, Ovid MEDLINE, CINAHL, Embase and PsycINFO were searched from inception to 01 July 2022 for quantitative and qualitative studies. Two reviewers independently assessed each study for eligibility and quality. Outcomes were mapped to 5 cancer survivorship care domains including (1) prevention and surveillance for recurrences and new cancers, monitoring and managing of long-term and late (2) physical effects and (3) psychosocial effects, (4) managing of comorbid medical conditions, and (5) health promotion and disease prevention.

Results

Thirty-three papers were included; 22 cross-sectional surveys, 8 qualitative, 3 mixed-method studies. Most studies were conducted in North America (n = 23) and Europe (n = 8). Knowledge and confidence in management of physical (n = 19) and psychosocial effects (n = 12), and prevention and surveillance for recurrences and new cancers (n = 14) were described most often. Few studies addressed chronic medical conditions (n = 3) and health promotion/disease prevention (n = 3). Generally, PCPs reported higher confidence in managing psychosocial effects (24-47% of PCPs, n= 5 studies) than physical effects (10-37%, n = 8). PCPs generally thought they had the necessary skills to detect recurrences (62-78%, n = 5), but reported limited confidence to do so (6-40%, n = 5). There was a commonly perceived need for education on long-term and late physical effects (n = 6) as well as surveillance guidelines (n = 9).

Conclusions

PCPs' knowledge and confidence in survivorship care varies according to its domains. Suboptimal outcomes have been identified in managing physical effects and recurrences after cancer. These results provide targeted directions for future education programs for PCPs on survivorship care.

241 Risk of neurologic sequelae among survivors of non-malignant meningioma in the UK Biobank cohort

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Objectives

Meningiomas are among the most common brain tumours in the UK. Incidence is increasing at a striking rate and is nearly on par with that of liver cancer. Around 90% of meningiomas are non-malignant, meaning they are unlikely to spread and have good survival. Brain tumour survivors in general are at increased risk of neurologic sequelae but the extent to which this applies to non-malignant meningioma survivors is not well known. In this study, we aimed to measure relative risks of neurologic sequelae in meningioma patients relative to their unaffected peers.

Method

We used data from the UK Biobank, a cohort of half a million adults who were recruited at ages 40-69 in the UK between 2006 and 2010. Individuals with a diagnosis of non-malignant meningioma were identified through linked cancer registry records. Follow-up for neurologic sequelae used the linked Hospital Episode Statistics in England and equivalent datasets in Scotland and Wales. Standardized incidence ratios (SIRs) for sequelae were estimated by comparing the observed number of events among non-malignant meningioma survivors to the expected number based on rates in the UK Biobank overall, adjusted for age and sex.

Results

We included 483 individuals diagnosed with non-malignant meningioma (0.1% of UK Biobank, 76% female). Median age at diagnosis was 66 (interquartile range [IQR]: 60-71) with a median follow-up of 5 years (IQR: 3-8). Preliminary results suggest survivors have significantly increased risk of all 10 sequelae studied. The lowest SIR was for depression (2.4, 95% confidence interval [CI] 1.4-2.4) and the highest SIRs were for epilepsy (19.5, 95% CI: 14.2-26.8) and visual disturbances (9.2, 95% CI: 5.4-15.9). SIRs for stroke, anxiety hearing loss, hearing loss, fatigue, headache, limb weakness and cognitive issues (in ascending order) ranged from 2.7 to 5.9.

Conclusions

Non-malignant meningioma survivors have expressed their desire for long-term follow-up information specific to their diagnosis. We anticipate three major pathways of impact for this study: (1) To improve quality of care for survivors by providing information for GPs and other clinicians specific to non-malignant meningioma; (2) To empower patients with information that will help them advocate for their

health, and/or motivate decisions about their health that could minimise long term risks; (3) To generate hypotheses and build momentum for future research.

242 Investigating the influence of rural residency on the uptake of screening for breast, cervical and colorectal cancers in Scotland.

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Objectives

Rural residency is associated with poorer survival after cancer diagnosis. However, it is not known whether there is a rural disadvantage associated with cancer screening. If screening uptake is lower in rural areas it could result in a lower proportion of early stage, likely curable cancers being identified and thus could be an important element of rural cancer survival disadvantage. Few prior studies have been conducted in countries where cancer screening is provided universally free of charge. We investigated whether there are rural urban variations in uptake of breast, cervical and colorectal cancer screening across Scotland.

Method

We analysed aggregate data from the Scottish Cervical (from 2016/17-2019/20), Breast (from 2016/17-2019/20) and Bowel (from 2009/10-2020/21) Screening Programmes. For each Programme, we calculated screening uptake rate with separate estimates for urban and rural residency (using the two-fold version of the Scottish Government Rural Urban Classification), age group, sex (bowel only), year, health board/region and Scottish Index of Multiple Deprivation (SIMD) quintiles. To evaluate the association of uptake with covariates, we fitted multivariable logistic regression models on grouped data of the outcome variable. We included two-way interaction effects (residency*health board, residency*SIMD quintile) if statistically significant ($p<0.05$). Analyses used STATA version 17 MP and R version 4.0.

Results

Cervical screening uptake in under 50s: rural:73.2%, urban: 69.7%. After adjustment, two health boards had higher; two had lower rural uptake; no differences in seven. Among 50-64 year olds, uptake was 75.7% in both areas. Modelling indicated lower rural uptake in two; higher rural uptake in four; with no differences in five health boards.

Mammography uptake: rural: 77.0%, urban: 71.0%. After adjustment, in SIMD quintiles 1 (most deprived) and 2, rural uptake was higher; in SIMD 5 lower rural uptake. Three health boards had higher rural uptake; two lower; no difference in eight.

Bowel screening had lowest uptake: rural: 62.5%, urban: 56.6%. After adjustment, 10/14 health boards had higher rural uptake; two lower and no differences in two island health boards. Breast and bowel cancer detection rates were similar regardless of residency.

Conclusions

We found that after allowing for important confounders, the relationship between rural residency and the uptake of cancer screening in Scotland was complex. The pattern of uptake was not consistent across all rural areas nor universal across the different cancer screening programmes. Reasons for the differences are likely to be multifaceted and include screening modality; organisation of screening (GP appointments vs. mobile screening units vs. postal screening kits); individual characteristics of those eligible for screening as well as the unique topography of Scotland and the heterogenous nature of rural Scotland.

244 Training Women to be Peer Health Coaches that Support Behaviour Change in Women at Risk for Cancer and Chronic Disease: A Mixed-Methods Evaluation of an Online Competency-Based Volunteer Peer Health Coaching Training Program

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Objectives

The BETTER Women Program is a proactive approach to cancer and chronic disease prevention in primary care that involves providing patients with prevention prescriptions followed by behaviour change support from a peer health coach (PHC). We developed a 6-week, online, competency-based, training program to equip volunteer PHCs with the requisite knowledge, skills, and resources for supporting behaviour change among women at risk of cancer and chronic disease in primary care. The purpose of this study was to evaluate the acceptability and effectiveness of the BETTER Women Peer Health Coach training program.

Method

The training program was delivered to 6 cohorts of women recruited from 3 different regions (urban, suburban, and rural) in Ontario, Canada in 2021 and 2022. Informed by the Kirkpatrick Framework, we conducted a one-arm, within-subjects, repeated measures feasibility study to evaluate program satisfaction, usability, and self-efficacy for core competencies. A sequential mixed-methods study design was used consisting of pre-post questionnaires, usage data, and focus groups. Descriptive statistics, paired-t-tests, and thematic analysis were used to analyze the findings.

Results

Sixty-three PHCs completed the training program. PHCs were on average 50 (SD=6.6) years of age, and the majority identified as White/European (43.5%) or South Asian (32.3%). PHCs completed all units and 97% of activities. Training program satisfaction was high (9/10; IQR=0.9), and online course usability was above average (74.95/100; SD=16.29). Pre-post competency scores increased in all competency domains ($p<0.03$- 0.001) and e-health literacy ($p<0.001$). Strengths included: content comprehensiveness, knowledgeable/supportive instructors, flexible online learning, and varied learning modalities. Areas of improvement included: increased collaborative learning, role-playing, instructor feedback, discussion forum usability, and integration of program technologies.

Conclusions

An online competency-based training program is an acceptable and effective format to train women to be peer health coaches for women at risk of cancer and chronic disease in primary care. Addressing areas of improvement could further enhance training program effects.

245 The cancer diagnostic interval in oral cavity, breast, colorectal, pancreatic, and skin melanoma: its variability and factors associated with its length

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Objectives

A prolonged time from first presentation to a cancer diagnosis may be detrimental to patients' outcomes and contribute to unnecessary distress during the waiting time. We computed the cancer diagnostic interval (DI) in five cancer sites: oral cavity (OC), breast, colorectal, pancreas and skin melanoma using routinely collected health data. Our objectives were to describe the DI length and its variability and to investigate potential factors associated with its length. We present a summary of this body of work and discuss commonalities and differences in our findings across cancer sites.

Method

These were population-based studies of patients diagnosed with cancer in Ontario (OC, breast, colorectal, melanoma) and Alberta (pancreas) Canada. The DI was the time from the earliest cancer-related healthcare encounter to the diagnosis date in the provincial cancer registry. Potential determinants of the interval length included age, comorbidity, area-level income, rurality, recent immigrant status, healthcare utilization variables and some resource measures. Multivariable quantile regression at the 50th and 90th percentiles of the DI are reported.

Results

The DI median (IQR) was: 33 days (13-74) for OC, 36 (19-71) for breast, 84 (32-196) for colorectal, 71 (61-80) for pancreas, and 36 (6-54) for melanoma. Longer DIs occurred with lower stage (OC, symptomatic breast, colorectal, melanoma), higher stage (pancreas), women (colorectal), younger age (symptomatic breast cancer, colorectal), older age (colorectal), increasing comorbidity (all sites), having a pre-existing condition (OC, melanoma) recent immigration (symptomatic breast), and non-smoking (OC). Diagnosis through a specialized unit was associated with shorter DIs in breast cancer but their treatment interval was longer. More regional colonoscopy resources were associated with shorter DIs in colorectal cancer.

Conclusions

The DI varies greatly within and across disease sites. This variability combined with indications that some vulnerable groups are experiencing protracted DIs points to a need for improvement in the consistency and quality of the cancer diagnostic experience. Better geographic distribution of human resources and increasing awareness of the obfuscating role of pre-existing conditions and comorbid disease on cancer identification are two particular areas for improvement identified by this body of work. Routine

surveillance of the DI should be implemented by provincial cancer agencies charged with ensuring high quality cancer care.

247 Using Concept Mapping to Understand Cervical Underscreening Amongst South Asian Women living in Ontario, Canada

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Objectives

This study is guided by the research question: How do the lives and experiences of South Asian women living in Ontario shape their decisions around getting screened for cervical cancer? The objectives of this work are to identify factors that impact the decision-making process for South Asian women to get screened or not to get screened for cervical cancer, and to also understand how stakeholders' perspectives and priorities align with the conceptual framework of how South Asian women in Ontario view cervical cancer screening. This presentation will focus on the findings from the brainstorming round of concept mapping.

Method

Concept Mapping (CM) is a participant-driven and semi-qualitative method that produces a conceptual framework that reflects how a group views a particular topic. This study engages South Asian women in the Greater Toronto area (GTA), community champions, people who work in organizations that serve South Asian women, and healthcare providers. The first step involved brainstorming ideas for the conceptual framework, using the focal prompt: One thing about the lives and experiences of South Asian women that influence their decision, in a positive or negative way, to get screened (i.e. a Pap test or HPV test) for cervical cancer is...

Results

Over 200 statements were generated in response to the focal prompt, by 56 participants. The statements covered cultural and societal factors, including religious and cultural beliefs, family responsibilities, stigma, health priorities, discomfort, fear and lack of awareness. There were statements that reflected details around healthcare access including wait times, convenience of appointments, having a female provider, and having a provider that speaks the same language and/or is of the same culture. Additionally, statements also outlined the impact of support from family, friends and peers.

Conclusions

Concept mapping is participant-driven and values the expertise of people in the issues that directly impact then. The brainstorming round is the first step in CM. The produced master list of statements will be the input for the conceptual framework, and will be used in subsequent rounds of sorting and rating. The produced maps will provide a framework that can be used to guide action planning and program

development to increase uptake of cervical screening amongst this disproportionately underscreened group in Ontario. The rating data will be used to identify the areas of most impact.

249 Lessons learned from a community-based screening program: building trust and bringing prevention to those who need it the most.

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Objectives

To disseminate best practices for screening uninsured, vulnerable populations in urban areas, using the Screening Access of Value (SAVE) program in Newark, NJ as a model for other community screening programs. The SAVE program is funded by federal and state, as part of the CDC-OCCP, and the NJ-CEED program. To qualify for SAVE, participants must be uninsured, with an income below 250% of the US poverty guidelines. Workshop participants will examine issues surrounding screening access, program capacity, community engagement for screening, and the success of using a mobile mammography van that meets women where they are.

Method

Through the workshop we will share analysis of quantitative data from 1996-2021 examining the number of individuals screened, the number of times an individual was screened, incidence by geographic region, race, and ethnicity, as well as exploring the role of community organizations in facilitating screening.

The analysis also explores targeted outreach employing geospatial analysis of SAVE participants and census tracts with an uninsured population above the 50% percentile for Essex County, NJ. Finally, the data explores SAVE's community engagement strategies, partnering with 60 community organizations, including the use of the mammography bus from 2008 to 2019

Results

The SAVE program screened 18,215 individual women and performed over 32,000 screenings. Women used the program approximately twice. In total, 220 cancers were detected and of those 137 (67%) were Invasive Breast Cancer. Select demographic information includes 77% foreign-born, 56% Latino, 33% non-Latino Black, and participants who came from 11 distinct regions. Differences in incidence rates per region and race were observed in the data. The geospatial analysis confirmed that SAVE was reaching women living in Census Tract with high uninsurance rates. The mobile van and community partners increased screening rates but did not yield higher rates of cancer detection.

Conclusions

This workshop aims to facilitate a conversation around best practices to screen vulnerable populations in urban areas. The session will present a roadmap on the evolution of the program over 26 years, various strategies employed, and the effects of the COVID-19 pandemic on the program. The

effectiveness of the different strategies, based on screening rates, target population, and cancers detected will be discussed as different avenues to increase screening rates, access to screening programs, and best use of program resources. The workshop will share lessons learned from a long-standing community-based program.

255 Associations between smoking status, health literacy and the healthcare-seeking behaviour with potential lung cancer symptoms in the general population

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Objectives

The overall objective of the study is to improve the chance of timely diagnosis of lung cancer by increasing the knowledge about groups of individuals who are less likely to seek healthcare with lung cancer symptoms. The healthcare-seeking behaviour may be influenced by e.g., the individual's lifestyle and health literacy. Health literacy is defined as the overall ability to act as patient and to navigate and communicate with healthcare professionals. The aim of this study was to analyse the associations between smoking status, health literacy and the healthcare-seeking behaviour among individuals with lung cancer symptoms in the general population.

Method

The study is a part of an expansion and follow up on the Danish Symptom Cohort (DaSC). The study is based on a nationwide survey study including 100,001 randomly selected Danish citizens 20 years or older conducted in 2022. In this study we explore the associations between smoking status, health literacy and contact to the general practitioner (GP) with potential lung cancer symptoms; prolonged coughing, shortness of breath, haemoptysis, prolonged hoarseness, tiredness, weight loss and loss of appetite. Health literacy is measured by four domains from the Health Literacy Questionnaire. Self-reported smoking status includes never-, former-, and current smoking.

Results

A total of 31,415 individuals answered the questionnaire during the spring 2022. The data is currently being analysed and the results will be ready for presentation at the conference. We will present results regarding lung cancer symptom prevalence and proportions of healthcare-seeking. Moreover, analyses of the associations between health literacy, smoking status, and healthcare-seeking behaviour will be presented. The analyses will be conducted as descriptive statistics and multivariate regression models.

Conclusions

The hypothesis is that high(er) health literacy is associated with higher likelihood of GP contact with lung cancer symptoms. Previous studies have shown that smoking status influence the healthcare-seeking behaviour. Therefore, we expect that smoking status may modify the associations between health literacy and healthcare-seeking behaviour. The results will provide a basis for more nuanced communication in both public awareness campaigns and healthcare settings. By increasing the

awareness about groups in risk of omitting GP contact, GPs may be able to support vulnerable citizens even better and thereby increase the likelihood of timely diagnosis of lung cancer.

257 Repeat consultation activity for clinical features of possible cancer before, during and beyond the COVID-19 restrictions: retrospective cohort study from English primary care

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Objectives

Consulting activity for cancer symptoms changed during the COVID-19 pandemic. Recent published research has looked at trends in the volume of consultations and remote consultation activity throughout the pandemic but has not evaluated trends in repeat consultations in England, which could impact patient experiences and outcomes, and inform future health professional practice.

This study aims to investigate trends in repeat GP consultation activity (3+ consultations for the same potential cancer site within 6 months of first consultation) in England for symptoms that may indicate cancer before, during and after COVID-19 restrictions.

Method

Retrospective cohort study using primary care data from the ORCHID Hub. 5,712,784 patients from 1,845 English GP practices aged 25+ with at least one GP consultation for a potential cancer symptom between 1st March 2018 – 1st January 2022 were included.

Proportions of repeat consultations were calculated for each study period (before: 03/2018-02/2019; during: 03/2020-02/2021; after: 03/2021-01/2022) for each cancer pathway (Breast, Colorectal, Gynaecological, Haematological, Head & Neck, Lung, Upper GI, Urological, Non-specific) and compared using risk ratios (RRs) with 95% confidence intervals (CI). Stratified RRs were used to assess differences between sex, age, ethnicity, and deprivation quintile.

Results

Overall, proportions of repeat consultations increased by 16% (95% CI RR: 1.15-1.16) in 2020/21 (pandemic) compared to 2018/19 (pre-pandemic). The increase was greatest for head and neck cancer symptoms (RR: 2.23 [2.05-2.43]), and low for lung cancer symptoms (RR: 1.03 [1.02-1.04]). Proportions for non-specific cancer symptoms increased by 21% (95% CI RR: 1.20-1.22), compared to 12% for site-specific symptoms (95% CI RR: 1.12-1.13).

The increase was highest for men, under 50s and the least deprived. Black and Other ethnic groups saw a significantly greater increase than White ethnic groups.

Proportions remained significantly higher post-restrictions (2021/22) compared to pre-pandemic for most sites.

Conclusions

Repeat consulting for symptoms of possible cancer increased during and after the COVID-19 pandemic restrictions, compared to pre-pandemic activity in English primary care practices, with important differences noted between sociodemographic groups.

An increase in repeat consulting could represent increased safety-netting in primary care in response to reduced capacity in secondary care, or a change in consultation patterns in an era of increased remote consulting. Further research should correlate these data with qualitative findings on patient and clinician behaviour and explore the potential impact on clinical outcomes for patients. Particular attention should be paid to identify opportunities to minimise health inequalities.

259 Adapting Colorectal Cancer Screening Strategies to Achieve Success: Lessons learned from the COVID-19 pandemic.

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Objectives

The purpose of the Health Outreach, Prevention, and Education (HOPE) for Colorectal Cancer (CRC) Screening Program is to increase CRC screening in the greater Newark, NJ area. This program targets a diverse hard to reach population by engaging with 30 community partners to facilitate educational sessions. Because of the COVID-19 pandemic, HOPE for CRC had to employ three different modalities for targeting participants. Modalities included 1) group educational sessions in community organizations, 2) one-on-one educational sessions within the waiting room of an ambulatory center and 3) offering educational sessions to specific patients within a clinical setting.

Method

The analysis uses quantitative data from 2019-2022 to examine the return rate of Fecal immunochemical test (FIT) kits after initial education. FIT kits return rates in follow-up years were also examined. The modality employed in the follow-up years was a passive outreach model, consisting of calling previous year participants to opt-in and receive a FIT kit. In 2022, an opt-out method was employed where all participants from previous years were mailed a kit. Modality of outreach was examined to understand the impact of on FIT kit return rates, both in the initial year of contact, and in subsequent years.

Results

Over the four years, HOPE for CRC provided educational sessions and FIT kits to 776 participants. The data show that one-on-one educational sessions were significantly more effective at getting participants to return their FIT kit during their initial year of screening than the other two modalities (p value <0.003). Likewise, the data show screening rates in subsequent years were statistically lower than using an opt-out method when compared to an opt-in method (p value <0.000).

Conclusions

The COVID-19 pandemic necessitated the use of an iterative outreach strategy to increase screening rates in a diverse hard to reach population. The data suggests that one-on-one education yields the best results for return rates when compared to group sessions and targeted education. However, the data also suggests that education done in person, either in a group or one-on-one, will significantly increase return rates compared to passive outreach with no educational component. As neither method used in subsequent years were as effective as an in-person educational session, the data suggests that CRC education should be provided yearly, and in person.

261 Distribution, Risk Factors, and Temporal Trends for Lung Cancer Incidence and Mortality: a global analysis

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Objectives

Lung cancer ranked second for cancer incidence and first for cancer mortality. The investigation of its risk factors and epidemiologic trends could help describe the geographical distribution and identify high-risk population groups. This study aims to evaluate the global incidence, mortality, associated risk factors, and temporal trends of lung cancer by sex, age, and country.

Method

Data on incidence and mortality were retrieved from the Global Cancer Observatory (GLOBOCAN), Cancer Incidence in Five Continents series I-X (CI5), WHO mortality database, the Nordic Cancer Registries (NORDCAN), and the Surveillance, Epidemiology, and End Results Program (SEER). We searched the WHO Global Health Observatory data repository for the age-adjusted prevalence of current smoking. The Average Annual Percentage Change (AAPC) of the trends was obtained by Joinpoint Regression.

Results

The age-standardized rate of incidence and mortality were 22.4 and 18.0 per 100,000 globally. Lung cancer incidence and mortality were associated with the Human Development Index (HDI), Gross Domestics Product (GDP), and smoking prevalence. For incidence, more countries had increasing trends in females but decreasing in males (AAPC: 1.06 to 6.43 for females; -3.53 to -0.64 for males). A similar pattern was found in those ≥50 years, while those aged <50 years had declining incidence trends in both sexes in most countries. For mortality, similar to incidence, 17/48 countries showed decreasing trends in males and increasing trends in females (AAPC: -3.28 to -1.32 for males, 0.63 to 3.96 for females).

Conclusions

Most countries had increasing trends in females but decreasing trends in males and in lung cancer incidence and mortality. Tobacco-related measures and screening should be implemented to control the increasing trends of lung cancer in females, and in regions identified as having these trends. Future studies may explore the reasons behind these epidemiological transitions.

269 Performance of screening tests for Esophageal Squamous Cell Carcinoma: a systematic review and meta-analysis

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Objectives

This systematic review and meta-analysis aimed to compare the pooled diagnostic accuracy of the currently available oesophagal squamous cell carcinoma (ESCC) screening tests.

Method

A comprehensive literature search of Embase and Medline was performed to identify eligible studies. We pooled sensitivity, specificity, positive likelihood ratio (PLR), negative likelihood ratio (NLR), and diagnostic odds ratio (DOR) for ESCC screening tools using a bivariate random-effects model. The summary receiver operating characteristic (sROC) curves with area under the curve (AUC) were plotted for each screening test.

Results

We included 161 studies conducted in 81 research articles involving 32,209 subjects. The pooled sensitivity, specificity, and AUC (95% CIs) of the major screening tools were: (1). Endoscopy (per-oral endoscopy): 0.94 (0.87-0.97), 0.92 (0.87-0.95), and 0.97 (0.96-0.99); (2) Endoscopy (transnasal endoscopy): 0.85 (0.70-0.93), 0.96 (0.91-0.98), and 0.97 (0.95, -0.98); (3). MicroRNA: 0.77 (0.75-0.80), 0.78 (0.75-0.80), and 0.85 (0.81-0.87); (4). Autoantibody: 0.45 (0.36-0.53), 0.91 (0.89-0.93), and 0.84 (0.81-0.87); and (5). Cytology: 0.82 (0.60-0.93), 0.97 (0.88-0.99), and 0.97 (0.95-0.98). There was high heterogeneity.

Conclusions

The diagnostic accuracy seems comparable between Cytology and endoscopy, whilst autoantibody and microRNAs bear potential as future non-invasive screening tools for ESCC. To reduce ESCC-related death in high-risk populations, it is important to develop a more accurate and less invasive screening test.

270 Perceptions and beliefs of general practitioners in the cancer screening programmes in The Netherlands: a mixed-methods study

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Objectives

In the Netherlands, there are population-based cancer screening programmes (CSPs) on cervical, breast and colorectal cancer. For a CSP to be effective, high participation rates are essential. Earlier studies showed that involving General Practitioners (GPs), can have a stimulating effect on screening participation. Currently, the GP has a limited formal role, which has decreased in importance over time, although there are variations between CSPs. It is unknown what GPs themselves think of their role within the CSPs. The aim of this study was to review GPs' perceptions and beliefs regarding their involvement in the Dutch CSPs.

Method

A mixed-methods study was conducted to review the perceptions and beliefs of the GPs in the Leiden – The Hague area of the Netherlands. A questionnaire was developed and distributed among GPs. Subsequently, in-depth semi-structured interviews were conducted with purposively sampled GPs to generate more insight in the data and themes emerged from the questionnaire.

Results

In total 46 GPs completed the online questionnaire, and five semi-structured interviews were conducted, before reaching data saturation. The CSPs were found to be a regular topic during consultation hours and GPs stated CSP as important, in which they like to stay involved. GPs are not eager to take on more logistical and organizational tasks, but are willing to positively empower the CSPs. Several options were suggested to improve the CSPs, such as a proactive neighbourhood approach to optimize the current screening uptake.

Conclusions

GPs were found to be generally positive about CSPs and their current role. Nevertheless many options were proposed to improve and optimise the current CSPs in the (nearby) future, especially focussed on the aim to increase the uptake for populations in a low socioeconomic position. Since it is of utmost importance to screen those most at risk of developing the screening-specific tumours, more effort should be appointed to achieve this goal.

273 Factors associated with events during the diagnostic process: a questionnaire survey among general practitioners

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Objectives

Timely diagnosis is crucial for cancer prognosis. A prerequisite for timely diagnosis is that imperative steps during the diagnostic process is taken. Ideally symptom presentation will lead to a cancer suspicion by the general practitioner (GP) followed by further investigation preferably in a Cancer Patient Pathway (CPP). However, the diagnostic process is often not linear, and many events could possibly extend time to diagnosis. This study aims to determine events during the diagnostic process among cancer patients. Furthermore, we investigate if patient characteristics and symptom presentation are associated with specific events and to the first referral in the diagnostic process.

Method

All general practices in three of five regions in Denmark were invited to a questionnaire survey. Participating GPs received a list of affiliated incident cancer patients during a 2-year period. Based on patient records the GPs answered a questionnaire for each patient addressing symptom presentation, events and first referral during the diagnostic process. The following outcomes were included: 1) Patients hesitation to GP-contact, 2) Referral for another illness first, 3) Awaiting due to normal investigations, 4) Referral to CPPs, 5) Acute hospitalization. Covariates considered were age, gender, and symptom presentation. Analyses were conducted as descriptive statistics and multivariate logistic regressions.

Results

A total of 5900 patients were registered with general practice as the first place of contact and were included in the study. According to the GPs 9.6% of patients had hesitated to seek medical attention, 23.1% of the GPs treated or referred on a suspicion of another illness first, while 5% awaited due to normal diagnostic investigations. Some 47% were first referred in an organ specific CPP, while 10.1% were diagnosed under acute hospitalization. Age and male gender were associated with referral for CPP and acute hospitalization. Non-specific or no symptoms was associated with most events.

Conclusions

One in ten cancer-patients have hesitated to seek medical attention, and nearly one in four are treated or referred on suspicion of another illness first. Close to half of the patients are referred in a CPP, while 10% were acute hospitalized. Both younger and older age are associated with a higher risk for acute hospitalization. Presenting with non-specific symptoms and in some instances with a combination of

both non-specific and specific symptoms are associated with both events during the diagnostic process and the first referral. A profound understanding of the healthcare-seeking behavior and the cancer diagnostic process is still relevant.

274 Follow-up cancer care in Danish general practice – perspectives from the General Practitioners

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Objectives

Due to increasing longevity and improved cancer treatment, the prevalence of cancer survivors has increased substantially. This has along with restructuring of the organisation of follow-up care in the secondary healthcare sector increased the need for new strategies for follow-up cancer care in general practice. However, little is known about the organisation in general practice and whether the GPs assess they have sufficient qualifications in this field. Thus, the aim was to investigate the organisation of follow-up cancer care in Danish general practice and to analyse the general practitioners (GPs) self-assessment of competence regarding cancer survivors and late effects.

Method

A total of 500 GPs from two regions in Denmark were invited to participate in a web-based survey concerning follow-up cancer care and palliation in general practice. In this study we included questions about the organisation of follow-up cancer care in general practice, and the GPs self-assessment of qualifications regarding 1) helping the patients to navigate in the follow-up care and 2) to evaluate the late effects as well as the impact on comorbidities and lifestyle. Covariates considered were gender, age, and practice type (single-handed vs. partnership). Analyses were conducted as descriptive statistics and multivariate logistic regression models.

Results

Of participating GPs, 29% reported systematic organisation of follow-up in their clinic. More than half of the GPs assessed they were qualified to help patients to navigate in the follow-up care and to assess mental sequalae, existential considerations and impact on lifestyle/ co-morbidities. Contrary, only 19% and 33% of the GPs, respectively, reported competences regarding sexuality and physical sequalae. Female GPs were less likely to report competences regarding physical-, and mental sequalae and challenges with sexuality, while they were more likely to report competences regarding co-morbidities. GPs from partnership practices were more likely to believe in competence assessing mental sequelae.

Conclusions

Less than one of three general practices have organised systematic follow-up cancer care in their clinic. Most GPs assess their own competence high with respect to helping their patients to navigate in the follow-up care, and to assess late effects as mental sequalae, existential considerations and impact on co-morbidities and lifestyle. However, the GPs assess their competence lower with respect to physical sequalae and challenges with sexuality and intimacy. This emphasises the need of more systematic

organisation and focus on management of late effects in general practice, to ensure all cancer patients a sufficient follow-up in primary care.

275 Use of CT scanning and Chest X-rays of Danish Patients with Lung Cancer prior to Diagnosis from 2010 to 2020

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Objectives

Denmark has one of the highest incidences of lung cancer in the world and the highest number of people dying of lung cancer per capita. The lung cancer guideline states that the standard radiological modality is a CT scan (sensitivity > 95%) if lung cancer is suspected. However, only some 25% of patients later diagnosed with lung cancer are referred directly to a lung cancer care package (CPP) due to alarm symptoms qualifying a referral, where a CT scan is mandatory. For the remaining patients not directly referred, who still turn out to have lung cancer, X-ray (sensitivity < 75%) has been the de facto standard initial radiological modality, thus delay due to false negative tests may be one reason for late stage diagnosis. The objective of this study is to quantify the respective use of X-ray and CT scans during diagnostic workup for Danish Patients with lung cancer prior to diagnosis.

Method

We conducted a retrospective cohort study of all patients diagnosed with lung cancer in Denmark from 2010 – 2020 using the Danish national patient registry to determine which modality of radiology (X-ray and/or CT) had been used 12, 6, 3 and months prior to time of diagnosis.

Results

In the year of 2020 about 40% of the Danish patients diagnosed with lung cancer had received an X-ray examination of the chest as the first test modality within a year before diagnosis. Further analysis of data is currently ongoing with a focus on suspected delay due to initial false negative x-ray. Findings will be presented at the conference.

Conclusions

There is an ongoing discussion whether CT or x-ray should be the first choice in any case where imaging of the chest is ordered and where lung cancer might be one of many diagnosis under consideration. Data from this study will further qualify this discussion and the possibility of reducing the number of initial false negative lung imaging and avoidable delay in diagnosis in diagnostic work up.

284 Planning a mixed-methods study of attendance for suspected cancer investigations in people with anxiety and/or depression

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Objectives

We will

1. Quantify associations between anxiety and/or depression and non-attendance at suspected-cancer referral appointments
2. Test if any differences in cancer stage and 1-year survival between attenders and non-attenders can be explained by anxiety and/or depression
3. Explore the experiences, perspectives, needs, and priorities ("attributes") considered by people with anxiety or depression when deciding to attend their referral appointments
4. Compile a list of attributes and their characteristics that are important to people when deciding whether to attend hospital appointments for cancer tests, for later development and validation of a survey instrument for use in discrete-choice experiments.

Method

Observational study of Clinical Practice Research Datalink and cancer registry data of adults invited to an urgent suspected-cancer appointment before their cancer diagnosis in 2012–2018. Logistic regression will test associations between anxiety and/or depression and referral attendance, controlling for other covariates including socioeconomic status and region. Mediation analysis will test for differences in stage and 1-year survival between attenders and non-attenders attributable to anxiety and/or depression.

In-depth and semi-structured interviews of a purposeful sample (n=24) of people with or without anxiety and/or depression from five geographically varied general practices will explore attributes affecting appointment attendance. Attributes will be prioritised for future development into a discrete-choice survey instrument.

Results

We expect to be able to share results in the summer of 2024.

Conclusions

We will produce a robustly selected list of attributes important for people with anxiety and/or depression when deciding whether to attend cancer referrals. These will be ready for incorporation into

a survey instrument that will be iteratively piloted using methods such as cognitive debriefing interviews in subsequent work. Ultimately, the survey instrument will be a valuable resource for use in numerous future discrete-choice studies as part of a wider body of work evaluating and designing healthcare services in the field of early cancer diagnosis.

292 Understanding the barriers and enablers of primary care remote consultations for suspected cancer among vulnerable populations – methodological considerations

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Objectives

Following widespread uptake during the Covid-19 pandemic, it is likely that remote consultations (RCs) will become a permanent feature in UK primary care. RCs have potential benefits, including ease of access, cost-effectiveness and reduced workload pressure on practice teams. However, it is not clear how vulnerable populations experience RCs when accessing primary care for suspected cancer symptoms. The aim of this PhD project is to understand the barriers and facilitators to the use of primary care remote consulting among vulnerable populations, and to develop an intervention to improve early cancer diagnosis in the context of RCs.

Method

This study will likely be conducted across four phases: (1) a review of the current literature on existing barriers and facilitators; (2) qualitative interviews with 20 people from vulnerable groups, based on their socioeconomic group, who have either experienced a remote consultation or who have not had/been able to have a remote consultation; (3) six focus groups with primary care practice teams to discuss how to improve remote consultations, based on the findings from the phase 2 interviews; and (4) the intervention development phase which will include 20 further patient interviews (n=20) for intervention refinement.

Results

A number of methodological quandaries have arisen in the development of the research plan for this project, including the potential target group(s) for the eventual intervention, as well as selecting an appropriate recruitment method for recruiting vulnerable groups, particularly those who choose not to or are unable to use RCs. Furthermore, methods of analysis are still in development and the different options will be discussed in detail.

Conclusions

Primary care has seen a shift towards remote consulting, with the Covid-19 pandemic leading to widespread, rapid uptake across the UK. With the move towards remote consulting in primary care, this study is highly relevant in potentially ensuring that the benefits of remote consultation can be experienced by all when accessing primary care, as well as contributing to the improvement of early cancer diagnosis. This study will result in a better understanding of remote consulting among vulnerable

populations, and subsequently the development of a primary care intervention to improve access to early cancer diagnosis in the context of remote consulting.

298 Exploring patient engagement with their GP practice about lung health symptoms: The PEOPLE-HULL study

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Objectives

Hull has among the highest lung cancer registrations and lowest rate of two-week referrals in England. The purpose of the PEOPLE-Hull study was to combine public, community engagement and primary care interventions to improve early diagnosis of cancer. This abstract focuses on the primary care intervention which is comprised of practice-specific media campaign, educational activities and quality improvement, fast-track appointments, focused ethnography, patient interviews, consensus development exercise and data extraction. We report on the patient interviews. We explored the eligible patients' experiences with-and acceptability of-the PEOPLE-Hull intervention, their experiences of consulting their GP for lung symptoms and their recommendations on how to improve the intervention.

Method

Recruited practices were requested to obtain permission from patients consulting for respiratory symptoms to share their contact details with the researchers if they were interested in participating in the study (interviews). Adults over 50 years old (n=10), preferably without COVID, consulting for respiratory symptoms, or who have developed new respiratory symptoms during the study period (when the practice-specific media campaign materials are being displayed) are eligible. Interviews were semi-structured and were conducted over the phone or face-to-face after written and verbal consent was given. Interviews were audio recorded and transcribed verbatim. Transcripts were analysed thematically and managed in NVivo.

Results

Thirteen patients in two practices have been interviewed to date. Preliminary findings suggest that the levels of interaction with the intervention and GP practices is influenced by the level of deprivation in the practice area. There were higher levels of interaction from the less deprived areas. Patients from more deprived areas had less interaction with the intervention and were less optimistic about their health. All patients interviewed reported mixed experiences with their GP practice, which had changed because of COVID. Patients recommended improving the intervention by taking the lung health information outside GP practices into the community.

Conclusions

Data collection is still ongoing for this study. We will continue to work to better understand patient experiences of attending their GP for lung symptoms and how to improve the efficacy of the PEOPLE-Hull intervention for patient education and awareness.

301 Are there differences by ethnicity in the recording of cancer features before diagnosis? An English longitudinal data-linked study

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Objectives

Spotting cancer among symptomatic patients is often complicated by the nature of symptoms, and patients' willingness and ability to articulate their symptomatic experience during primary care consultations. However, a mixed-methods study showed that UK Asian and Black patients may not fully disclose suspected-prostate cancer symptoms during primary care consultations, which may explain their greater frequency of consultations and longer time to diagnosis compared with the British White majority. In the present study, we used primary care linked data to investigate ethnic differences in the profile (number and type) of cancer features recorded in primary care in the year before diagnosis.

Method

A population-based cohort study of patients diagnosed with one of six common cancers (breast, lung, prostate, colorectal, oesophagogastric, and myeloma) using national cancer registry data linked to the Clinical Practice Research Datalink. We identified coded features of possible cancer in the year before diagnosis based on site-specific symptoms, signs, or blood test results appearing in the original or revised National Institute for Health and Care Excellence guidance. Multiple mixed-effects logistic regression models investigated ethnic differences in recorded features of cancer by site, restricted to index features (first recorded) and adjusted for age, sex, smoking status, deprivation, and comorbidity.

Results

Of 122,693 included patients, 92% were White. In total, 176,354 index features were recorded in the year before diagnosis, around half (n= 84,080/176,354) of which were isolated features. The number/type of features differed considerably by ethnicity. Patient of Black and Mixed ethnicities were more likely than White patients to have isolated features. For three sites (lung, prostate, oesophagogastric), Asian and Black patients were more likely than White patients to have low-risk features recorded, including cough, erectile dysfunction and upper abdominal pain. There was no site where non-White patients were more likely than White patients to have alarm features recorded.

Conclusions

These findings may explain ethnic differences in timeliness of diagnosis and stresses the need for further exploration of the predictive value of cancer features in ethnic minority groups and the association with diagnostic stage.

305 A systematic review of prescribing patterns in general practice records prior to cancer diagnosis: interim results

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Objectives

Cancer is a significant cause of morbidity, mortality, and economic loss in Ireland. Diagnosis of cancer at an earlier stage leads to improved outcomes. Consequently, much research has been conducted to identify ways of detecting cancer early. One approach involves probing electronically stored patient records for subtle differences between patients with and without early-stage cancer. Previous studies have shown that rates of prescribing of certain medications increases in the 12 months preceding a cancer diagnosis.

Method

In this systematic review, we sought to identify all published, peer-reviewed studies in the English language which quantitatively describe an association between a cancer diagnosis and GP prescribing data prior to that diagnosis. We included any studies which compare the prescribing patterns in the 24 months before a cancer diagnosis with “baseline” prescribing and quantify this difference.

Results

Here we present interim results featuring studies from the MEDLINE database only. Where the information was available, we categorised the papers according to: (1) year; (2) country/research group; (3) cancer type; (4) number of patients in the GP dataset with and without cancer; (5) study methodology (retrospective or prospective; identifying novel associations or applying known associations to new populations); (6) variables (i.e., patient information and prescribing information) utilised; and (7) how the association between prescribing and impending cancer diagnosis was quantified, including diagnostic test performance metrics (i.e. sensitivity, specificity, PPV etc.).

Conclusions

Many prediction tools have been developed which leverage a data routinely held by a patient’s GP to predict their risk of various types of cancer. It is hoped that, in the future, software will automatically examine a patient’s prescribing records during a GP consultation and alert the GP to an elevated cancer risk if identified. We hope that this systematic review has usefully summarised the existing literature for researchers working in this area, provoking innovation through the cross-pollination of ideas, as well as generating awareness of what might be possible in the future around decision aids for early cancer detection.

306 Pilot lung screening in Scotland: intervention development and interim findings

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Objectives

We undertook a multi-method study to test the feasibility and acceptability of a lung screening intervention in Scotland, using low dose computed tomography. We aimed to understand people's views on, and barriers and facilitators to, lung screening, to test the process for lung screening in Scotland and obtain feedback on challenges in implementing screening. This paper will present the interim findings from the pilot study and some qualitative feedback on the process from patient and professional interviews.

Method

Preparatory work comprised of four components - virtual focus groups, a systematic review of patient-reported barriers to screening, document analysis of existing lung screening pilots in England, and a stakeholder workshop – to inform the development of a pilot lung screening intervention involving LDCT. Patients for the pilot were identified via participating general practices using codes for smoking status. Those who responded were screened for eligibility using validated risk prediction tools. Patients assessed as high risk were offered a one-off low dose CT scan. Patients requiring any follow-up were referred to usual NHS care. A sub-group of participants and health care professionals were interviewed to ascertain their views on the process and identify implementation challenges.

Results

To date, 153 patients have responded (approximately 22%) to a lung screening invitation. Eighty scans have been conducted for those at high risk. Further findings of participant characteristics and scan outcomes will be presented. A summary of findings from screening participant and non-responders interviews will be presented, noting views on and experiences of the lung screening process and challenges in the provision of lung screening at a local level, such as primary and secondary care burden and capacity issues, infrastructure and the role of smoking cessation. Issues around practical and psychological barriers, equality of access and the role of primary care featured strongly.

Conclusions

Implementation of lung screening must take into account the characteristics of the population it will serve and accommodate the barriers and facilitators to maximise uptake and improve outcomes. Our

pilot study to explore the feasibility and acceptability of lung screening in the Scottish population is ongoing and has begun to explore implementation challenges to be addressed in any future lung screening programme, and identify how primary care can help optimise screening.

313 Comprehensive Cancer Screening Prevention, Risk Reduction, and Survivorship: an integrated model of whole-person care

Tessa Flores*, Christina Crabtree-Ide*, Kathryn M Glaser, Mary Reid

Both contributed equally as first author

Objectives

Cancer screening and survivorship can be siloed in terms of care management. In the US, the components of cancer screening and cancer survivorship are managed by a wide range of specialists for one given patient. The risk of second primary cancers is high among cancer survivors due to high-risk health behaviors, family history, genetic predisposition, and cancer treatment history. Therefore, as a part of whole person care, we integrate comprehensive cancer screening, risk reduction, and prevention counseling into the model of survivorship care managed by a single provider.

Methods

Comprehensive cancer screening is managed by the Cancer Survivorship team and includes risk assessment and lifestyle modification recommendations. In addition to patient-reported quality of life surveys that flag symptom management needs, pre-visit planning involves the care team reviewing regional health information exchanges for relevant completed cancer screenings including breast, cervical, colorectal, lung and prostate screening, in accordance with national cancer screening and survivorship guidelines. In addition, we monitor for late effects related to cancer treatment, including comprehensive blood panels, and additional tests and scans related to long-term impact of cancer care.

Results

We have developed a successfully integrated Cancer Screening and Survivorship model that addresses comprehensive cancer screening, monitoring of late effects, risk reduction, and prevention. Counseling on risk reduction and prevention of recurrence and second primary cancers includes discussions related to risk factors like smoking, alcohol intake, exercise, diet (e.g. red meat intake, processed foods), and BMI.

Conclusions

This integrated model of survivorship care streamlines care for patients and implements a patient-centered approach to comprehensive cancer screening, risk reduction, and prevention. Additionally, consistent and reliable communication with the community-based primary care providers is essential to long-term management and has led to a successful Survivorship program model. The program continues to grow and addresses complex issues facing cancer survivors related to care coordination and important follow-up care, particularly as it relates to long-term symptom management, additional cancer screenings, and necessary testing and management of late effects of cancer therapy.

Oral Presentations

174 Feasibility of a Targeted Intensive Community-based campaign To Optimise vague Cancer (TICTOC) symptom awareness and help-seeking in an area of high socioeconomic deprivation

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Objectives

Rapid Diagnostic Centres (RDCs) are being implemented across the UK to accelerate the diagnosis of vague suspected cancer symptoms. Awareness of vague cancer symptoms is poor and, when combined with high cancer fear and fatalism, may contribute to prolonged symptom presentation in socioeconomically deprived populations. Targeted behavioural interventions are needed to augment RDCs that serve socioeconomically deprived populations who are disproportionately affected by cancer. This mixed-methods study is assessing the feasibility of delivering and evaluating a community-based symptom awareness intervention in an area of high socioeconomic deprivation in South Wales, UK.

Method

Mixed-methods evaluation of an intervention delivered from July 2021-March 2022. Intervention messages aligned to the Behaviour Change Wheel were delivered by trained cancer champions using broadcast, printed, outdoor and social media. Data collection included (1) questionnaires with RDC patients to assess demographic characteristics and outcomes including the patient interval (Neal et al., 2014), (2) advertising metrics, health-related quality of life and healthcare resource use and (3) qualitative interviews and focus groups. Feasibility was assessed as green (deliverable), amber (amend) or red (review) based on descriptive analysis of quantitative data. Qualitative data were thematically analysed to understand contextual factors.

Results

Of 243 RDC patients, 21% completed the questionnaire (amber) with <20% missing data (green). Most intervention participants (72%) were from the two most deprived quintiles (green).

Facebook advertisements reached 237,023 people and received 8,164 post engagements. Delivery of billboard and poster advertising, pharmacy bags and radio/Facebook/newspaper adverts was assessed as green. Adverts on buses, newspaper stories and leaflets were amber and TV interviews, posters in buses and bus shelters were red. Intervention implementation cost, health utility and healthcare resource use were green.

Preliminary qualitative findings highlight barriers to the cancer champion role reflecting role identity and engagement during COVID-19.

Conclusions

Our findings to date suggest that, despite the need for intervention amendments due to the COVID-19 context it was feasible to deliver and evaluate multiple intervention elements of this targeted community-based intervention. A stakeholder workshop will inform optimal methods of implementing and evaluating behavioural interventions to support RDCs in deprived populations. Results will inform national policy and practice regarding targeted behavioural interventions to support RDCs.

181 Validation of a diagnostic prediction tool for colorectal cancer: a case-control replication study

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Objectives

Early detection of colorectal cancer (CRC) is crucial for survival. Primary care, the first point of contact in most cases, needs supportive risk assessment tools. We aimed to replicate the baseline study as a validation of the Swedish Colorectal Cancer Risk Assessment Tool (SCCRAT) for non-metastatic CRC in primary care and examine if risk factor patterns depend on sex and age.

Method

2920 adults diagnosed with non-metastatic CRC during the years 2015-2019 after having visited a general practitioner the year before the diagnosis, were selected from the Swedish Cancer Register and matched with 11 628 controls, using the same inclusion criteria except for the CRC diagnosis. Diagnostic codes from primary care consultations were collected from a regional healthcare database. Positive predictive values (PPVs) were estimated for the same five symptoms and combinations thereof as in the baseline study.

Results

The results for patients aged ≥ 50 years old in the present study were consistent with the results of the SCCRAT study. All symptoms and combinations thereof with a PPV > 5% in the present study had a PPV > 5% in the baseline study. The combination of bleeding with abdominal pain (PPV 9.9%) and bleeding with change in bowel habit (PPV 7.8%) were the highest observed PPVs in both studies. Similar risk patterns were seen for all ages and when men and women were studied separately.

Conclusions

This external validation of the SCCRAT for non-metastatic CRC in primary care replicated the baseline study successfully and identified patients at high risk for CRC.

182 Symptom appraisal and help-seeking in men with symptoms of possible prostate cancer: a qualitative study with an ethnically diverse sample in London

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Objectives

Prostate cancer mortality in Black men is disproportionately high, partly due to tumour biology and diagnostic delays. Reducing these delays, particularly those which occur before initial medical help-seeking in primary care, may help to overcome any underlying risk in this population. This study aims to explore symptom appraisal and help-seeking in older men with symptoms of possible prostate cancer, using the findings to support the development of targeted interventions for improving early presentation and subsequent diagnosis in Black men.

Method

Qualitative study of 18 Black and White men in London who had recently seen their general practitioner (GP) with urinary symptoms, erectile dysfunction or haematuria. Thematic framework analysis was used to analyse data from semi-structured interviews conducted in a previous multi-methods study of primary care use by men with symptoms of possible prostate cancer. We searched for overarching themes and drew comparisons between ethnic groups under four headings; initial appraisal of symptom/s, consequences of symptom/s, responses to symptom/s and re-appraisal and help-seeking.

Results

Men interpreted their symptoms as unimportant if symptoms were mild, stable, manageable and/or attributable to other causes. Delays mostly occurred due to the absence of reasons to seek help which, in Black men, typically stemmed from poor prostate cancer awareness. This was likely a consequence of their reluctance to seek health information and discuss health issues with others within their social network. Friends and relatives played an important role in symptom appraisal and help-seeking, which may link with these differences. Men often saw their GP for an unrelated reason and frequently underreported their symptoms of possible prostate cancer.

Conclusions

Cognitive biases, cultural stigmas and everyday interpersonal interactions should be important targets for strategies seeking to improve early presentation among Black men with possible prostate cancer. GP's should actively search for symptoms and have a low threshold for referral in Black men, avoiding using a lack of reported symptoms as a basis for refusing further investigations.

183 Full BLOOD count TRends for colorectal cAnCer deteCtion (BLOODTRACC): development of dynamic prediction models for early detection of colorectal cancer using trends in blood tests from primary care

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Objectives

Colorectal cancer is common in the UK. Around 55% of patients are diagnosed late-stage, where likelihood of survival is low: five-year survival is 93% at Stage 1 versus 10% at stage 4. Early detection is crucial to save lives. The full blood count (FBC) is a common blood test in primary care. Patients with colorectal cancer have specific trends among their FBCs over time for many years before their diagnosis, not seen in patients without colorectal cancer. We developed the BLOODTRACC models, dynamic prediction models utilising patient-level trends in repeated FBC measurements for two-year risk of colorectal cancer.

Method

We performed a cohort study using patient data from the Clinical Practice Research Datalink, with colorectal cancers identified from the National Cancer Registration and Analysis Service. We developed a multivariate joint model of longitudinal and time-to-event data to derive two-year risk of diagnosis for males and females separately. Using all historical FBCs over five years prior to the current FBC (baseline), trends in haemoglobin, mean cell volume, and platelet measurements informed risk of diagnosis in two years (+/- 3 months). Model performance in the internal validation sample was assessed using Harrell's c-statistic for discrimination and calibration plots.

Results

The joint models were developed using 250,716 males and 246,695 females, of whom 0.4% (n=865) and 0.3% (n=677) were diagnosed in two years (+/- 3 months) following their current FBC, respectively. Simultaneous decreases in haemoglobin and mean cell volume and increase in platelets from the average population trend (patients with no diagnosis) were associated with an increased risk of diagnosis in two years for both males and females. The c-statistic was 0.751 (95% CI: 0.739, 0.764) for males and 0.763 (95% CI: 0.753, 0.775) for females in the internal validation cohort. Calibration plots indicate the models are well calibrated.

Conclusions

Our dynamic BLOODTRACC prediction models identify patients with undiagnosed colorectal cancer and perform well in bringing their diagnosis forward by two years. As relevant FBC trends are present before

symptoms become apparent, blood test abnormality, and referral thresholds in national guidelines are reached (these results will be presented), the models can facilitate earlier detection. Future research will focus on comprehensive testing of the BLOODTRACC models in further primary care patients.

186 Exploring the impact of comorbidities on cancer outcomes and routes to diagnosis; a retrospective cohort study

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Objectives

NHS England has prioritised increasing the proportion of patients diagnosed early with cancer as part of the NHS Long Term Plan. However, this may be challenging, as the rising prevalence of chronic conditions may complicate the cancer diagnostic process. Here we investigate whether patients with pre-existing conditions were more likely to be diagnosed with late-stage cancer or die within 30 days of cancer diagnoses. We also investigated whether patients were more likely to be diagnosed after an emergency presentation or after receiving a two-week-wait referral.

Method

We used linked primary care (Clinical Practice Research Datalink), and cancer registration (NCRAS) data. Patients diagnosed with any of 25 common cancers during 2012-2018 were included. The Cambridge Multimorbidity score was used to calculate multimorbidity burden. We used logistic regression to investigate which patient groups (comorbidities, age, gender, smoking history and deprivation level) were more likely to be diagnosed at late-stage or die within 30 days of diagnosis. Similar logistic models were used to investigate which patient groups were more likely to be diagnosed after emergency presentation or a two-week-wait referral.

Results

288,297 patients were included. There was evidence that all outcomes were independently associated with age, deprivation, and comorbidity burden ($p<0.001$), with older, more deprived patients more likely to die within 30 days of diagnosis, have an emergency presentation or be diagnosed at late-stage. Patients with higher multimorbidity burden were more likely to die within 30 days, or have emergency presentations, but less likely to be diagnosed at late-stage or after two-week-wait referrals. Associations between multimorbidity burden and outcomes varied for individual cancers, but no evidence was found that increasing multimorbidity burden was associated with late-stage for any individual cancer site.

Conclusions

Although some patient groups were more likely to have worse outcomes, patients with multi-morbidity were more likely to be diagnosed early. Potentially, regular monitoring of a chronic condition may provide opportunities to detect cancer earlier. As multi-morbidity has previously been linked to poorer survival chances, it may be that combinations of specific comorbidity types and cancers better explain the relationship between multi-morbidity and cancer outcomes.

187 A pragmatic cluster randomised controlled trial (RCT) assessing the clinical effectiveness and cost effectiveness of electronic risk-assessment tools (eRATs) for cancer for patients in general practice: An update on the ERICA trial.

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Objectives

The UK has poorer cancer survival outcomes compared with other developed countries. With an increase in undiagnosed cancer following the Covid-19 pandemic, NHSE policy now mandates adoption of cancer risk tools in primary care to aid early diagnosis. Our previous work calculated the risk of undiagnosed cancer in patients presenting with specific clinical features. These risk assessment tools have been converted into electronic format for six cancer sites. This trial aimed to provide definitive evidence of the clinical- and cost-effectiveness of using electronic Risk Assessment Tools (eRATs) to facilitate the early diagnosis of cancer in primary care.

Method

ERICA is a pragmatic, cluster RCT of 530 general practices across England randomised 1:1 to receive either the intervention (eRATs medical device embedded in the practice clinical system) or usual care. The suite of six eRATs generate a pop-up alert detailing a personalised cancer risk score when a patient has a 2+% risk of bladder, kidney, lung, colorectal, oesophago-gastric or ovarian cancer. The clinician decides the appropriate course of action following the pop-up.

Results

Recruitment has ceased; 439 practices have been randomised. Monthly eRAT usage reports indicate good uptake across intervention practices. The primary outcome collected from English cancer registry data (available in 2025) will be the stage of cancer at diagnosis. A 4-5% increase in early stage cancers diagnosed (stages 1-2) versus late stage cancers (stages 3-4) during the 2-year trial period is aimed for. Process evaluation interviews with practice staff investigating eRAT setup and functionality experience is currently underway. Patient interviews assessing experience and care following referral commence shortly. Health economics and service provision nested studies are scheduled later in 2023.

Conclusions

The eRATs may assist primary care clinicians in identifying sooner which patients warrant specialist referral for undiagnosed cancer and to which speciality.

188 A machine learning tool for identifying non-metastatic colorectal cancer in primary care

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Objectives

Background: Primary health care (PHC) is often the first point of contact when diagnosing colorectal cancer (CRC). Human limitations in processing large amounts of information warrants the use of machine learning as a diagnostic prediction tool for CRC.

Aim: To develop a predictive model for identifying non-metastatic CRC (NMCRC) among PHC patients using diagnostic data analysed with machine learning.

Method

Design and setting: A case-control study containing data on PHC visits for 542 patients > 18 years old diagnosed with NMCRC in the Västra Götaland Region, Sweden during 2011, and 2139 matched controls.

Method: Stochastic gradient boosting (SGB) was used to construct a model for predicting the presence of NMCRC based on diagnostic codes from PHC consultations during the year before the date of cancer diagnosis and the total number of consultations. Variables with a normalized relative influence (NRI) > 1% were considered having an important contribution to the model. Risks of having NMCRC were calculated using odds ratios of marginal effects (ORME).

Results

Results: Of the 361 variables used as predictors in the SGB model, 184 had non-zero influence, with 16 variables having NRI > 1% and a combined NRI of 63.3%. Variables representing anaemia and bleeding had a combined NRI of 27.6%. The model had a sensitivity of 73.3% and a specificity of 83.5%. Change in bowel habit had the highest ORME at 28.8.

Conclusions

Conclusion: Machine learning is useful for identifying variables of importance for predicting NMCRC in PHC. Malignant diagnoses may be hidden behind benign symptoms such as haemorrhoids.

189 BMI and HbA1c as metabolic markers for pancreatic cancer

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Objectives

Changes in BMI and HbA1c, as well as diabetes are known risk factors and symptoms of pancreatic cancer. Depending on the location within the organ, pancreatic cancer can cause endo- and exocrine deficiency leading to hyperglycaemia, diabetes, weight loss and/or malnutrition. Most people (80% to 85%) experience hyperglycaemia one to three years before pancreatic cancer diagnosis, 30% to 50% of people receive diabetes diagnosis (any time in relation to pancreatic cancer diagnosis), and 70 to 75% experience weight loss starting about a year prior to diagnosis. The aim of this study was to investigate the relationship of pancreatic cancer with BMI, Hba1c and diabetes, to improve our understanding of the timelines, and to aid primary care in recognising pancreatic cancer.

Method

A matched case-control study was undertaken within 590 primary care practices in England. We used the Oxford-Royal College of General Practitioners Clinical Informatics Digital Hub (ORCHID) database. Longitudinal profiles for BMI and HbA1c were visualised from 6 years prior pancreatic cancer diagnosis (index date for controls) and compared between cases and controls. Odds ratios (OR) of pancreatic cancer for differences in BMI and HbA1c between cases and controls were calculated with conditional logistic regression to account for matching by age, gender and diabetes and adjusting for ethnicity, index of multiple deprivation (IMD), smoking and alcohol consumption. Subgroup analyses were undertaken according to the diabetes status.

Results

Study sample consisted of 8,777 cases diagnosed with pancreatic cancer from 2007 to 2020 and 34,979 matched controls, with an even 50:50 split between males and females. Median age at diagnosis was 73 (IQR: 65 to 81). At the time of diagnosis, BMI was lower for cases than controls by 3 units, 25.7 kg/m2 (95% CI 25.6 to 25.8) versus 28.4 kg/m2 (95% CI 28.3 to 28.5). OR for pancreatic cancer associated with a 5 kg/m2 weight loss was 1.6 (95% CI 1.5 to 1.7, $p < 0.001$). The average HbA1c for cases was 55.0 mmol/mol (95% CI 54.4 to 55.7) and for controls it was 48.5 (95% CI 48.2 to 48.7). OR for pancreatic cancer associated with 10 mmol/mol increase in HbA1c was 1.4 (95% CI 1.4 to 1.5, $p < 0.001$).

Conclusions

Statistically significant changes in BMI and HbA1c started three years before pancreatic cancer diagnosis but varied according to the diabetes status. BMI and HbA1c are easy measures to complete in primary care and this makes them ideal candidates for cancer markers. The advantage of using HbA1c and BMI is that in many people hyperglycaemia and weight loss happen years before pancreatic cancer-specific

symptoms such as jaundice. However, in our study a large proportion of cases and controls did not have a BMI and/or HbA1c measurement at ±1 year of pancreatic cancer. Regular BMI and HbA1c measurements are required to facilitate future research and implementation in clinical practice. Statistical approaches that can better deal with missing data in EHRs are also needed.

190 'Picking up the pieces': primary care practitioners' experiences of cancer care reviews: A qualitative study

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Objectives

One role of primary care in the UK is to deliver cancer care via financially incentivised conversations: 'cancer care reviews' (CCRs). There has been a smaller workforce, increased patient demand, and CCR policy changes alongside lack of research on CCRs since 2015. There is a need to explore how primary care staff deliver cancer care through CCRs, especially since the start of the coronavirus disease 2019 (COVID-19) pandemic. This study aimed to explore primary care staff experiences with CCRs and identify their view of CCRs, how they conduct CCRs and their perceived value of CCRs.

Method

An exploratory qualitative descriptive approach was used to collect data via remote semi-structured interviews with primary care staff after gaining informed consent. Interview transcripts were analysed using reflexive thematic analysis. Ethical approval was granted by the Health Research Authority (HRA) - IRAS number: 313015.

Results

Fifteen members of staff were interviewed (11 general practitioners (GPs), 3 practice nurses, and 1 physician associate). Six themes were identified: 1) continuity of cancer care; 2) impacts of community and secondary care function on primary care function; 3) evolving perceptions of cancer; 4) complex delivery of cancer care reviews. Primary care staff identified the way that cancer was perceived which impacted how CCRs were delivered. Cancer care involved provide holistic care, helping decode jargon, signposting and providing unmet care needs. The COVID-19 pandemic resulted in remote CCR delivery.

Conclusions

Cancer care review delivery is negatively impacted by resource-depleted primary, secondary and community healthcare services. Financial incentives helped achieve a care standard and CCRs were a small part of how cancer care was delivered discretely throughout the year. Templates acted as a guide rather than a rigid structure as CCRs were tailored to patient needs.

194 Cancer diagnostics through Cancer Patient Pathways in patients with psychiatric disorders

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Objectives

Cancer diagnosed through Cancer Patient Pathways (CPPs) initiated in primary care has higher survival than cancer diagnosed through e.g. unplanned admissions. Yet, it is unknown which routes patients with psychiatric disorders are prone to be diagnosed with cancer. The aim is to study whether cancer patients with psychiatric disorders are less likely to be diagnosed following a CPP, and how this vary with sup-type of psychiatric disorder and cancer type.

Method

We conducted a national register based study, including all cancer patients registered with cancer in the Danish Cancer Registry between 2014-2018 (n=155,851). Information on psychiatric disorders were based on registrations in Danish national health registers including hospital admissions and prescriptions of psychotropic medicine. The probability of a cancer diagnosis through CPP initiated in primary care was compared between the groups with and without psychiatric disease. Data was analysed using multinominel regression models with marginal means.

Results

Among patients with psychiatric disorders, 37.7% was diagnosed through a CPP, which was 45.5% for patients without psychiatric disorders. This difference was also statistical significant in models adjusting for socio-demography, physical comorbidity and cancer type. The lowest use of CPP was seen for patients with severe psychiatric disorders (schizophrenia and organic disorders). There were also variations in the association across cancer type.

Conclusions

Patients with pre-existing psychiatric disorders were less often diagnosed through CPP compared to patients without, which was most pronounced among patients with severe psychiatric disorders. This study reinforces the literature showing that patients with pre-existing psychiatric disorders are more likely to experience challenges in the cancer pathway.

The study is published in BMC Cancer: https://doi.org/10.1186/s12885-022-09598-x

196 SMARTscreen to SMARTERscreen: using a novel SMS with narrative communication to increase uptake of the National Bowel Cancer Screening Program in Australia, learning from a pilot study.

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Objectives

Increasing participation in the Australian National Bowel Cancer Screening Program (NBCSP) is the most efficient and cost-effective way of reducing mortality associated with colorectal cancer by detecting and treating early-stage disease. Currently, only 44% of Australians aged 50–74 years complete the NBCSP. The objectives of SMARTscreen were to test the efficacy, acceptability, and feasibility of sending an evidence-based multi-intervention SMS from general practice to prompt patients to complete NBCSP kits. The objectives of SMARTERscreen are to test a revised complex intervention (the SMS with added video material) compared with sending an SMS alone and the control group.

Method

For SMARTscreen we recruited general practices in the western region of Victoria, Australia into a cluster randomised controlled trial. Patients aged 50-60 years old who were due to receive a NBCSP kit in the next month were sent the SMS. We co-designed the SMS using evidence-based methods including: general practice endorsement of NBCSP, a motivating video, a step-by-step instructional video of how-to do the kit, and link to NBCSP information. The primary outcome was the difference in the FOBT results between the intervention and control group over 12 months. Qualitative interviews explored acceptability and feasibility with clinical staff and patients. We used the results of SMARTscreen and further co-designed the SMS with consumers and experts and added components to be tested in a broader population. Data will be captured from the National Cancer Screening Register.

Results

In 2020, 21 general practices were recruited into the study. The practices were randomly allocated to each group [(10 control practices:11 intervention practices)(2537 control patients:2914 intervention patients)]. The difference in FOBT uptake between the intervention and control arms was 16.5% (95% CI: 2.02, 30.9%). Qualitative process evaluation found the SMS was feasible and acceptable to patients and general practice staff. SMARTERscreen will trial the revised SMS in 60 practices. The results of the

co-design process and development of the methods will be presented. Recruiting will begin in January 2023.

Conclusions

The SMARTscreen SMS combination increased uptake of the NBCSP in 50- to 60-year-old general practice patients. Trialing the SMS in a rural area and using the data collected from general practice records were limitations of SMARTscreen. Developing and testing the SMS in a broader Australian population, using data from the National Cancer Screening Register is currently being developed with funding from the NHMRC [The 'SMARTERscreen trial'].

198 The NASCAR+ Study - a data-linkage study of the association between travelling time from home to the cancer centre and receipt of post-diagnostic hospital cancer care

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Objectives

We expanded and updated the original NASCAR cohort to explore the potential association between higher travel burden, receiving less specialist care and having more serious complications in the first year after treatment. The specific aims were, first to explore association between travelling time to the regional cancer centre (ARI) and number of post-treatment hospital outpatient appointments and elective admissions in the post-diagnosis year. Second, to re-explore the association between travelling times to the cancer centre and survival. Third, to determine whether the patients who were most remote from cancer services had more emergency admissions and consequent mortality.

Method

This data-linkage study updated the original Northeast and Aberdeen Scottish Cancer and Residence (NASCAR) cohort from National Records of Scotland (NRS) Death Records, hospital outpatient attendances (SMR00), hospital inpatient admissions (SMR01), and Scottish Cancer Registry (SMR06) to create NASCAR+ capturing all patients diagnosed with one of eight common cancers from 2007-2019 from the Grampian mainland, and NHS Orkney and NHS Shetland, two island communities. Travel times from place of residence to ARI were calculated using Google API. Subsequent regression analyses explored associations between different categories of travel-time and survival, hospital outpatient appointments, and number, type and duration of hospital admissions.

Results

Those living >30 minutes from ARI and island-dwellers, spent significantly more days in hospital [Incidence Rate (IR) 30-60 minutes 1.07 (1.02-1.12); >60 minutes 1.14 (1.10-1.20); Island-dwellers]

Those living >60 minutes from ARI had more [Surgical IR 1.19 (1.13-1.24), Medical IR 1.10 (1.06-1.520] appointments in the year following diagnosis, but island-dwellers had fewer [Surgical IR 0.93 (0.86-0.99), Medical [IR 0.63 (0.59-0.67].

Those living >30 minutes from ARI and on islands had poorer one-year survival.

More remote patients and island-dwellers were no more likely to have an emergency admission, but when they did, spent more days in hospital and had higher mortality.

Conclusions

Pre-pandemically Northeast Scotland rural-dwellers diagnosed with cancer spent more time in hospital than urban counterparts, with potential family and financial implications. This may be compounded for more remote mainland with more hospital appointments in the first year after-treatment with, in contrast, island-dwellers receiving fewer appointments. Both groups have poorer survival than urban patients. The most remote patients are no more likely to have an emergency hospital admission in the first year, but where they do, they are in-hospital for longer and less likely to survive. Overall, it seems that rural-dwellers experience the cancer pathway differently, and have poorer outcomes.

Other category

Health Geography

199 Psychosocial interventions that facilitate adult cancer survivors' reintegration into daily life after active cancer treatment: a scoping review

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Objectives

Despite receipt of traditional follow-up care, many cancer survivors have unmet needs. A barrier to addressing survivors' psychosocial needs has been a lack of interventions aimed to address the issues important to cancer survivors. The concept of finding a "new normal" or "reintegration" after cancer treatment has been identified as important, particularly to survivors, in several primary studies. To our knowledge, this study was the first to map the extent and type of evidence related to psychosocial interventions targeted toward adult cancer survivors' reintegration into daily life and activities following active cancer treatment.

Method

This scoping review was conducted following the Joanna Briggs Institute methodology for scoping reviews. An a priori protocol was published and followed. A literature search was conducted in MEDLINE (Ovid), CINAHL (EBSCO), and Embase (Elsevier). Gray literature was searched using ProQuest Dissertations and Theses (ProQuest). Studies were screened at the title/abstract and full-text levels, and two independent reviewers extracted data. The review considered international studies within various health care (e.g., primary care and hospital-based) and community-based settings. Non-English manuscripts were excluded due to feasibility (e.g., cost, time). Findings were summarized narratively and in tabular form.

Results

This scoping review included 40 studies that evaluated psychosocial interventions amongst adult cancer survivors trying to reintegrate after active cancer treatment (qualitative n=23, mixed-methods n=8, quantitative n=8, systematic review n=1). The articles included in this review spanned 10 different countries/regions. The main types of interventions found were:

- peer support groups (n=14),
- follow-up education and support (n=14),
- exercise programs (n=6), and
- multi-disciplinary/multi-component programs (n=6).

Nine quantitative tools that aligned with reintegration were used in included studies. Compared to hospital-based settings (n=6), more interventions were conducted in primary care or community-based settings (n=17).

Conclusions

The most common type of interventions aimed to facilitate adult cancer survivors' reintegration after cancer treatment were peer support and follow-up education and support. Primary care and community-based settings play an important role in providing meaningful interventions that help survivors reintegrate after cancer treatment.

200 Fear of cancer recurrence at 2.5 years after a cancer diagnosis. Needs for care and contacts to general practice.

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Objectives

Fear of cancer recurrence (FCR) is a frequently reported concern in cancer survivors. It is also one of the most common unmet needs reported by cancer survivors. FCR may develop into a severe state with devastating effects on health status and quality of life. This study aimed to investigate if high FCR levels in cancer survivors is associated with their need for care and consultation frequency in general practice.

Method

This study was based on survey data from Danish cancer survivors at 2.5 years after a cancer diagnosis. This data was linked to nationwide register data. The 7-item Fear of Cancer Recurrence Inventory (FCR7) was used to measure fear of recurrence. The FCR7 score was dichotomised at the 75th percentile. Regression models were used to analyse associations between a high level of FCR in cancer survivors and (1) their statements concerning follow-up for cancer and (2) their consultation frequency in general practice.

Results

We included 1,538 cancer survivors; 366 (23.8%) had an FCR7 score >21 (high level of FCR). A high level of fear was associated with negative statements concerning follow-up, including not being aware of recurrence symptoms and feeling less safe in the follow-up programme. Fear was not related to the professional background of the care providers involved in cancer follow-up. The preliminary results indicate that high fear is associated with more contacts in general practice in the year before the survey and in the period from 2.5-1.5 years before the primary cancer diagnosis.

Conclusions

Fear of recurrence was associated with lower satisfaction with cancer follow-up. At the time of the conference, we will be able to present the final results from the analyses of healthcare contacts in general practice. The preliminary results indicate that the increased healthcare use seen in cancer survivors with high FCR is not attributed to the cancer disease alone. The increased healthcare use may be related to more profound health concerns, as indicated by a higher habitual consultation frequency in this population before the diagnosis of the primary cancer.

201 Diagnostic activities in general practice among colorectal cancer patients with comorbidity

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Objectives

Colorectal cancer (CRC) patients' diagnostic activity starts several months prior to their diagnosis. Suspicion of a cancer diagnosis is challenged by the presence of multimorbidity. The aim of this study is to describe the frequency and the timing of selected diagnostic activities in Danish general practice 12 months prior the CRC diagnosis among patients with different levels of comorbidity.

Method

In a nationwide, register-based study, we include 27,725 patients with first-time CRC diagnosed 2010 to 2016 in Denmark. The exposure is pre-existing comorbidity measured using the Danish Multimorbidity Index which is based on a combination of diagnoses and prescriptions for disease-specific medication and codes 39 mental and somatic diseases. Pre-existing comorbidity is characterised into five levels: 0, 1, 2, 3 or ≥4 comorbidities. The outcomes are contacts to general practice (visits to a general practitioner (GP) and haemoglobin measurements) within 12 months prior the CRC diagnosis.

Diagnostic activities are compared across the levels of comorbidity using mixed-effects negative binomial regression models. All analyses are adjusted for age, marital status, educational level, income status and year of CRC diagnosis. As men and women have different frequencies of help-seeking, the analyses are stratified by gender.

Results

Results will be finalised for presentation. For each level of comorbidity, each type of diagnostic activity and each gender we will present 1) rates of contacts to general practice during 12 months pre-diagnosis, 2) the onset of increased healthcare seeking pre-diagnosis, 3) the number of additional contacts during the period from the onset of increased healthcare seeking until the CRC diagnosis.

Conclusions

This study will contribute to the scarce knowledge of how frequency and timing of diagnostic activities in general practice among patients with CRC variate according to pre-existing comorbidity. If variation found, GPs should be alert to the possibility of CRC in particular groups of patients.

202 How Cancer Survivors' Challenges After Treatment Impact Transition to Primary Care-led Follow-up Care.

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Objectives

Based in Nova Scotia, this study is: (1) identifying from oncologists, those needs, sociodemographic factors or other characteristics most heavily considered when discharging patients to primary care; (2) describing the transition of survivors to primary care by self-identified needs post-treatment; (3) investigating if certain survivor profiles, specifically the characteristics identified in objective 1, are associated with transitioning to primary care after treatment.

Method

Based in Nova Scotia, this study is: (1) identifying from oncologists, those needs, sociodemographic factors or other characteristics most heavily considered when discharging patients to primary care; (2) describing the transition of survivors to primary care by self-identified needs post-treatment; (3) investigating if certain survivor profiles, specifically the characteristics identified in objective 1, are associated with transitioning to primary care after treatment.

Results

This study is ongoing, with final results anticipated in March 2023. Descriptive summaries of the linked data found that the three most prevalent needs for breast cancer survivors were fatigue (74.0%), anxiety/fear of recurrence (64.1%), and body image issues (52.6%). The top three needs for colorectal cancer survivors were fatigue (66.7%), anxiety/fear of recurrence (57.0%), and body image issues (41.6%), just as they were for breast cancer survivors. Logistic regression analyses that will investigate if survivor differences impact the ability to transition to primary care are currently ongoing.

Conclusions

Later findings will provide key information to systematically identify those survivors ready to transition, aiding in developing personalized models of follow-up care based on survivor needs.

203 Acceptability of risk-stratified bowel cancer screening: findings from 'At Risk', a qualitative study.

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Objectives

There have been growing calls for cancer screening to be risk-stratified. The premise is that having more precise knowledge about one's risk of bowel cancer can be used to determine which screening modality (type of test) and intensity (screening start/finish, frequency) should be offered. Higher risk individuals would have more to gain from risk stratification and this could help to make the programme more effective and efficient but there are a number of considerations. The objective of this study was to examine acceptability of risk-stratified bowel cancer screening among members of the public and healthcare professionals (HCPs).

Method

'At Risk' was an exploratory qualitative, pump priming study conducted between October 2021- October 2022. Virtual focus groups, supported by a visual elicitation tool in the form of an info-comic book with six fictional characters illustrating various levels of risk (low/ moderate/high) based on personal or family history of cancer, FIT and lifestyle factors, were used to understand attitudes to risk-stratified bowel cancer screening. Five online focus groups were held, two with members of the public (n=12), and three with HCPs (n=11). Focus groups were conducted on Teams/Zoom and recorded. These recordings were transcribed and data was analysed using thematic analysis.

Results

Findings indicated acceptability of risk stratification is more than a dichotomous yes/ no answer. The public and HCPs have faith in the current programme as it offers a 'safety net'; any changes to this should be in addition to, and not at the expense of, what we already have. Public and HCPs shared concerns over stratifying solely against risk factors as not everyone who develops cancer has an identifiable risk factor. Any changes to the current programme would need to be carefully communicated. Findings also show a need for a wider programme of health education surrounding risk factors.

Conclusions

These findings are important as any future changes to the current bowel screening programme must be acceptable to those working in, and receiving, screening. If there is a lack of acceptability among the public, this may have an impact on already low screening uptake rates and could widen pre-existing inequalities. A resistance towards risk stratification among HCPs may also be an obstacle to the delivery of risk-stratified screening so it is imperative that there is buy in from all stakeholders before any changes are made to the programme, which was seen as the 'gold standard' among HCPs.

204 Understanding patient preferences for investigating cancer symptoms in general practice: A discrete choice experiment

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Objectives

In Australian general practice, tension exists between appropriately investigating patient symptoms to exclude conditions such as cancer, satisfying patient preferences for testing while considering what testing is appropriate to avoid over-investigation. This study aimed to understand preferences for investigating cancer symptoms and the trade-offs consumers make about having diagnostic tests to exclude a cancer diagnosis at different thresholds of cancer risk in general practice.

Method

A discrete choice experiment (DCE) was used elicit preferences for testing across different clinical scenarios for bowel, lung and oesophagogastric cancer. DCE attributes and levels were selected following a literature review and 15 formative qualitative interviews. Three different symptom scenarios were used for each cancer type. Attributes included the kind of diagnostic test, relationship with the GP, wait time for test and results, travel time and cost. A pilot was conducted on approximately 100 participants per cancer type (total of 300 participants). The final DCE will survey 1000 participants for each cancer type (total of 3000 participants).

Results

Pilot results demonstrated a preference to be tested for higher-risk lung cancer symptoms but not bowel or oesophagogastric cancer. The type of diagnostic test impacted preferences for lung cancer (preference for CT) but not bowel or oesophagogastric cancer. Testing strategies involving regular GP were preferred across all three cancer types.

Conclusions

The pilot results highlighted variations in preferences for testing across different cancer types. These results will be further elucidated in the final survey, which will be presented at the conference.

205 General Practice chest x-ray rate is associated with earlier lung cancer diagnosis and reduced all cause mortality: a retrospective observational study

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Objectives

Although lung cancer survival is known to be closely associated with detection at earlier stages of disease, evidence regarding general practice CXR rate on outcomes is equivocal. Findings from a symptom awareness campaign suggested a beneficial stage shift and improved survival with higher CXR rates while another study has shown that practices which perform higher numbers of CXR typically have worse cancer specific survival. The objective of this study was to determine if there is an association between general practice CXR rates and outcomes (stage and survival).

Method

Data on CXR rate for English general practices were obtained from Diagnostic Imaging Dataset (2013-2017) linked to cancer registry data on patients diagnosed with lung cancer 2014-2018. General Practices were categorised by CXR rate into fifths adjusted for potential population level confounders (sex, age, ethnicity, Charlson co-morbidity score and deprivation). Logistic regression was used to examine late stage (stage III and IV) versus early stage (I and II). Cox proportional hazards regression was used to calculate the association between CXR rate and survival.

Results

Data were obtained for 195,084 patients along with linked CXR rate data for 7,269 practices. Comparing practices with CXR rate in the highest fifth (after adjustment) against those in the lowest fifth, the odds ratio for diagnosis at stage III and IV was 0.88 (95% CI 0.83-0.93, $p<0.001$), and the hazard ratio for death within one year was 0.95 (0.93-0.97, $p<0.001$). No associations were found for five year survival.

Conclusions

This study suggests that practices that perform more CXRs detect lung cancer at earlier stages. We also found evidence for improved survial at one year amongst lung cancer patients at practices with higher CXR rates. LDCT screening for lung cancer has recently been recommended in the UK, but even if implemented fully it is likely that most lung cancers will continue to present symptomatically. Encouraging GPs in practices which use CXR less frequently to increase investigation rates in patients with appropriate symptoms could help achieve earlier detection and improved survival.

206 Psychological Impact of the Galleri Test (sIG(n)al): Protocol for a longitudinal evaluation of the psychological impact of receiving a cancer signal in the NHS-Galleri Trial

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Objectives

Multi-cancer early detection (MCED) blood tests look for cancer signals in cell-free deoxyribonucleic acid (cfDNA). These tests have the potential to detect cancers at an earlier (asymptomatic) stage when they are more likely to be treatable and if successful, would result in better cancer outcomes. Any screening method needs careful consideration of the psychological harms. Our research aims to explore the psychological impact of receiving true- and false-positive test results following an MCED blood test. The project is embedded in the NHS-Galleri trial, a large clinical trial that has randomised over 140,000 members of the general population aged 50-77 to either have an MCED blood test (intervention arm) or be in the control arm. This work focuses on participants who receive a positive test result (i.e. have a 'cancer signal detected') within the trial.

Method

All participants who have a cancer signal detected will be sent a questionnaire at three time points: immediately after their result, 6-months and approximately 12-months later. The primary outcome is anxiety, assessed using the short-form State-Trait-Anxiety-Inventory (STAI-6). Other measures include the Psychological Consequences of Screening Questionnaire (PCQ), reassurance and concern about the test result, understanding of results, risk perceptions and help-seeking behaviour. A sub-sample of 40 participants (20 with a cancer diagnosis and 20 with a false-positive result) will be invited to take part in one-to-one semi-structured interviews to explore their experience in depth.

Results

Descriptives will be reported for all primary and secondary outcomes. Regression will be used to explore relationships between sets of independent variables and continuous outcomes. Qualitative data collected during the interviews will be analysed in NVivo using reflexive thematic analysis. This is an interpretive approach to analysing qualitative data supporting the researcher to identify themes and patterns in the data set.

Conclusions

The findings will help to develop supporting information and interventions to minimise anxiety and improve understanding of the experience of having a cancer signal found in MCED screening. Findings will inform UK National Screening Committee recommendations regarding adoption of MCED screening and will support any future roll-out. If there is evidence of raised and prolonged adverse psychological impact following detection of a cancer signal, the findings will suggest factors that can reduce this if

MCED blood test screening is offered routinely in the future. Comparisons will be made with previous research in the cancer screening context.

211 Provider perceptions of interventions to encourage prevention and early diagnosis of cancer after a negative diagnosis

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Objectives

There are over 2 million referrals to the Two Week Wait Pathways in England annually and approximately 90% conclude with a negative diagnosis. There is evidence that patients can delay seeking help for the same or subsequent symptoms after investigations indicate a negative diagnosis for cancer, potentially due to: over reassurance, fear hypochondrial perceptions or wasting doctor's time, or just because patients are not sure what to do next. Negative diagnosis following referral for suspected cancer may be an under-utilised 'teachable moment' when people are more responsive and receptive to health information. The purpose of this study was to investigate healthcare professional's (HCP's) views about the feasibility of introducing new initiatives to offer advice and support to encourage early diagnosis and reduce future cancer risk, after an initial negative diagnosis.

Method

Online, semi-structured interviews were conducted with practising NHS healthcare professionals involved in the referral or ongoing care of patients referred onto the two week wait pathway for suspected cancer. A convenience sample was used where participants were invited via NHS Trusts and professional networks e.g. Cancer Alliances. A topic guide was developed informed by the Capability-Opportunity-Motivation and Behaviour model. Interviews were audio-recorded, transcribed verbatim and analysed using Framework Analysis using both inductive coding, and deductive coding informed by the Theoretical Domains Framework.

Results

36 HCPs (n=14 from primary care, n=22 from secondary care across referral pathways for 8 cancer sites) were interviewed between October and December 2021. Participants supported the need to explore additional ways to encourage early diagnosis of cancer. There was variability in the extent of support currently offered to patient's after the two-week wait pathway for suspected cancer. Whether patients should or could be offered additional support and the content of that support was influenced by perceptions of resource requirements (e.g. consultation time, skill level of staff involved), along with judgements about intervention efficacy to result in health behaviour change, and the potential consequences including patient anxiety or confusion. Perceptions around the goals of the two week wait pathway and role of primary care influenced ideas about where support should be offered, HCP's motivation to offer support, and how support might be perceived by patients.

Conclusions

Providers' views can usefully inform future intervention design. The content, format and delivery of initiatives directed towards patients who receive a negative diagnosis following urgent referral for suspected cancer needs to be resource efficient, have proven impact and be coherent to patients given their recent health experience.

213 Improving communication from secondary to primary care about treatment decisions for patients with cancer: development and pilot testing of a new format for written communication

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Objectives

For patients to have a meaningful conversation with their general practitioner (GP) about treatment options and decisions, GPs need adequate information about the available treatment options, relevant deliberations, and the intent of treatment. In this pilot study we developed, tested, and implemented of a new format for written communication from medical specialists to GPs in the Netherlands, aiming to provide accurate information to facilitate the GP's role in decision-making.

Method

We developed a new format for written communication using a participatory approach with relevant stakeholders. The new format added three specific headings: treatment options, treatment considerations and treatment intent and this was incorporated into the electronic patient record (EPR). The intervention was implemented between November 2020 and February 2021 in the University Medical Center Groningen (UMCG) for patients with gastric and esophageal cancer, patients eligible for HIPEC and patients with colorectal cancer (not undergoing HIPEC). Implementation was evaluated using the RE-AIM (Reach, Effectiveness, Adoption, Implementation, Maintenance) framework.

Results

Data were analyzed for 38 patients (42% women) with a median age of 67 years (interquartile range 61-74). Medical specialists used the new letter format with 15 of these patients (39%), mentioning treatment options and considerations in 80% (26% for the old format) and treatment intent in 87% (30% old format). GPs mentioned that the inclusion of considerations for treatment options helped them understand the thought processes of the medical specialist.

Conclusions

An improved format for written communication can help GPs to understand deliberations on treatment options and to have meaningful discussions with patients.
When the new format was used, specialists provided information under all headings of the new format. During the implementation period, adherence to the new format was limited, mainly due to technical issues. However, the intervention was deemed feasible and can help active GP involvement in treatment decision making for patients with cancer.

Other category

Communication and patient counseling

215 Which patient-related context information, available in primary care, should be taken into account during the treatment decision making process for older patients with cancer?

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Objectives

Treatment options formulated during multidisciplinary oncology meetings in hospitals are often based primarily on medical-technical information. For treatment decision-making with older patients, it is important to balance risks and benefits, using additional information about context and preferences. Although older patients are often well known by their general practitioner(GP) or GPs' practice nurse(PN), contextual information available in primary care is not structurally shared with the hospital. Therefore the aim of this study was to assess which patient related context information concerning older patients with cancer, should be taken into account during treatment decision-making according to primary and secondary healthcare providers.

Method

During a cross sectional survey in the Netherlands, we distributed a digital questionnaire amongst GPs, PNs, oncological medical specialists and (oncology) nurses. For recruitment, we used mailing lists from relevant organizations and social media. Demographic and professional characteristics were obtained. Furthermore, participants were asked to score 14 context-related items on a four-point relevance scale. We calculated the percentage of healthcare providers rating an item as relevant or highly relevant, and also calculated these numbers for primary and secondary care separately.

Results

We included 145 healthcare providers: 39 GPs, 19 PNs, 41 medical specialists and 46 nurses. Of the 14 items, 11 were rated as relevant or highly relevant by ≥80% of the participants. These items were: living situation, homecare, social network, frailty, cognitive problems, mobility, therapy compliance, coping, health literacy, advance directives and preferences, and psychiatric history. For all these items, the percentages for primary and secondary healthcare providers were in accordance.

Conclusions

Our survey showed that healthcare providers in both primary and secondary care find it important to share contextual information that is available in primary care. Future research should focus on implementing structural sharing of this information in order to provide a solid basis for shared decision-making and patient-tailored care.

Other category

Communication / during treatment phase / older patient

216 Assessing awareness of blood cancer symptoms and barriers to symptomatic presentation: Measure development and results from a population survey in the UK

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Objectives

Low levels of cancer awareness may contribute to delays in seeking medical help and subsequent delays in diagnosis. For blood cancer, this may be a particularly concerning problem due to the high prevalence of undifferentiated symptoms such as body pain, weakness, nausea, night sweats, and weight loss, resulting in low symptom awareness. The delay is exacerbated by the dismissal of such symptoms, which are often interpreted as mild disease, resulting in multiple consultations prior to diagnosis. This study describes the development of a Cancer Awareness Measure for Blood Cancer (Blood CAM) and presents results from a population-representative survey using the measure.

Method

A rapid systematic review used two electronic databases to synthesise current literature. Identification of items from previous awareness measures and other literature identified nine salient constructs for inclusion in the measure: symptom awareness, re-consultation, body vigilance, patient enablement, social support, barriers to help-seeking, symptom experience, attribution, and help-seeking. These were reviewed by expert groups including healthcare professionals and patients. Cognitive interviews were conducted with ten members of the public and six people with experience of blood cancer to check comprehension and clarity. A total sample of 434 participants completed the survey at Time 1 and n=302 at Time 2 (two weeks later).

Results

Internal reliability was high across the different constructs included in the questionnaire (Cronbach's α>0.70) and test-retest reliability was moderate to good (ICC 0.49-0.79). The most commonly recognised blood cancer symptoms were unexplained weight loss (68.9%) and unexplained bleeding (64.9%) and the least commonly recognised symptoms were night sweats (31.3%), breathlessness, and rash/itchy skin (both 44%). In terms of symptom experience, fatigue was the most reported symptom (26.7%), followed by night sweats (25.4%). Exploratory factor analysis of barriers to presenting at primary care revealed three distinct categories; emotional, external/practical, and service/healthcare professional-related. Service and emotional barriers were the most common.

Conclusions

Blood CAM is a valid and reliable tool to assess blood cancer awareness and identify variability in awareness of blood cancer symptoms. Importantly, internal reliability for new/adapted items, for

example, candidacy and patient enablement, were good or excellent. We conducted the first documented factor analysis of barriers to presenting to primary care, which revealed three distinct categories; emotional, external/practical, and service/healthcare professional barriers. Blood CAM also incorporates additional measures (e.g., confidence to re-consult, ability to understand symptoms), all of which could be used to tailor public campaigns/messaging and target intervention for blood cancer and other harder-to-diagnose cancers.

220 Young women with (pre)malignant cervical lesions in the northern Netherlands: what characterises them?

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Objectives

In the Netherlands, women between the ages of 30 and 60 years are invited to take part in the cervical cancer screening programme every five years. An analysis of historical data in the University Medical Centre Groningen (UMCG), however, revealed that 18% of women being diagnosed with a high-grade cervical intraepithelial neoplasia (CIN grade 2/3), was aged under 30 and thus not yet involved in the screening programme. In this study, we aim to define characteristics of these young women to be able to identify groups at risk.

Method

A linkage was performed between Lifelines, a population-based prospective cohort including around 10% of the population of the northern population of the Netherlands, and the Dutch Nationwide Pathology Databank (PALGA), which covers all pathology diagnosed cancers and other diseases. Data on (pre)malignant cervical lesions was retrieved from the PALGA database. Demographics and self-reported baseline data such as socio-economic status, smoking, oral contraceptive use and pregnancies was derived from Lifelines.

Results

For a total of 13.174 women aged 18-29, self-reported baseline data was available in Lifelines. 195 women had one or more records in PALGA reporting a CIN2+ lesion under the age of 30, before invitation to the screening. Median age at first CIN2+ diagnosis was 27 years (range 19-29). The most common diagnosed lesion was a CIN2 (N=96, 49.2%), followed by CIN3 (N=49, 25.1%) and carcinoma in situ (N=44, 22.5%). Macro invasive carcinomas accounted for the remainder of diagnoses (N=6, 3.1%).

Conclusions

We identified a relatively large group of young women who developed a CIN2+ lesion before having reached the eligible age for the Dutch cervical cancer screening programme. The next step in our analysis is to compare characteristics of these women to matched controls (women without any cervical lesion report in PALGA under the age of 30). We expect to have these results available within the next three months.

222 Establishing the priorities for electronic safety-netting tool features: A qualitative interview and Delphi study with PPI input.

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Objectives

Objectives. In primary care high levels of uncertainty are common, not least because patients often present early in their illness when it is difficult to distinguish serious from benign disease, and a small proportion of patients seen by GPs are actually seriously ill. The majority of patients with cancer, however, start their diagnostic journey in primary care so identifying the seriously unwell is vital. Safety-netting is a tool often used to deal with this uncertainty by using the 'test of time', providing the patient with information on how to self-care and seek further help when indicated, and by providing prompts to clinicians to follow-up or continue investigations. There are an increasing number of electronic safety-netting (ESN) tools that aim to facilitate and automate safety-netting for the clinician, and the objective of this study was to establish the high priority features of these tools.

Method

Method. User experience interviews were carried out with primary care staff who had trialled an EMIS ESN toolkit and the results of these interviews informed a Delphi study. Primary care staff who were involved in safety-netting patients were invited to take part in the Delphi study. We also engaged a PPI panel to whom the results of the user experience interviews and Delphi study were presented with the intent of gathering input on how tools designed as indicated in the Delphi study might affect patients' experiences of being safety-netted.

Results

Results. Thirteen user experience interviews were conducted and sixteen (64%) of the Delphi participants completed all three rounds. Primary care staff indicated that features that promoted flexible, efficient, and integrated use of ESN tools were important. However, when important features were discussed with the PPI group they expressed disappointment that features they believed would make ESN tools robust did not reach consensus. We will present the results of the user experience interviews, the Delphi study, and discuss where the opinions of staff and the PPI group differed.

Conclusions

Conclusion. The successful adoption of ESN tools will rely on evidence of their effectiveness at providing a robust safety-net for patients, and ultimately whether they improve patient outcomes. There is

tension, however, between clinicians' preferences for tools that are unobtrusive, simple, and flexible, and patients who would prefer ESN tools that facilitate a standardised way of working that warns and alerts the clinician and creates a safety-net that is difficult to fall through.

224 The Yorkshire Enhanced Stop Smoking (YESS) study: process evaluation of a personalised intervention to support smoking cessation within lung cancer screening

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Objectives

Integrating smoking cessation support within targeted lung cancer screening can improve the overall cost- and clinical-effectiveness. However, evidence is limited regarding optimal ways to embed smoking cessation. The YESS trial evaluated the effectiveness of an enhanced smoking cessation intervention (gold standard behavioural support and pharmacotherapy + personalised booklet of lung/heart images highlighting potential emphysema and/or coronary artery calcification) vs control (gold standard support only) delivered by trained smoking cessation practitioners (SCPs) as part of a mobile, community-based lung screening programme. We carried out an embedded process evaluation to examine intervention setting, fidelity, dose, and contextual factors.

Method

Mixed-methods process evaluation involving qualitative interviews and audio-recorded SCP consultations. Qualitative interviews were carried out with 30 intervention and 15 control participants at three time points (4 weeks, 12 weeks and 12 months), and 30 individuals who declined smoking cessation support. 10% of SCP consultations were audio-recorded on the mobile screening unit and at 4 weeks to assess intervention fidelity. Preliminary findings are reported based on thematic analysis of interviews (20% independently dual-coded) and fidelity assessments of smoking cessation consultations (n=83) delivered by eight SCPs.

Results

Participants from both trial arms described co-located and ongoing smoking cessation support, with immediate provision of pharmacotherapy and compassionate and holistic care, as the main facilitator to initiating/sustaining a quit attempt. Strong self-efficacy and response-efficacy beliefs regarding smoking cessation were expressed across trial arms. Individuals who declined support described shame, social isolation and mental health issues, and were concerned about the perceived effectiveness of cessation aids. High levels of fidelity were observed in SCPs delivering essential competencies (e.g. assessing

current readiness and ability to quit, prompting commitment) with a mean fidelity score of 7.8/8 (score ranging from 6 – 8).

Conclusions

The provision of person-centred smoking cessation support is key to motivating a quit attempt in the lung screening setting. Optimised gold standard smoking cessation support appeared to boost receptivity to quitting irrespective of trial allocation, illustrating the effectiveness of the personalised, efficacy-focused components in supporting cessation. Offering this service could counteract contextual barriers to smoking cessation in lung screening candidates with long-term tobacco dependence. Further analysis of the remaining process data will shed light on intervention delivery and dose in relation to the trial outcomes.

227 Experiences of Cancer Survivors with Lifestyle Care in General Practice: a Qualitative Study

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Objectives

Participation in physical activity (PA) programs by cancer survivors is generally low. Frequently mentioned barriers include the PA not tailored to the patient's needs, lack of knowledge, skills and interest of the health care worker, non-involvement of the general practitioner (GP), or costs related to insufficient insurance-coverage for PA programs. By implementing an individualized PA program in GPs practice with counselling by a practice nurse, we aim to tackle these barriers. This qualitative study aims to gain insight into the experiences and barriers and facilitators of cancer survivors participating in the PA program.

Method

We conducted a qualitative interview study using a phenomological approach. Patients were selected by purposive sampling on GPs practice, gender, educational level, motivation towards PA and increase in PA. We asked patients about their experiences, barriers, and facilitators with the core elements of the program, which include coaching sessions with the practice nurse, use of an activity tracker, and GPs practice as location. The interviews were audio recorded, transcribed verbatim and pseudonymized. We used thematic analysis where two researchers applied inductive coding. To enhance credibility of research findings we involved patient partners during data collection, analysis and reporting.

Results

We interviewed 13 patients to date but aim to collect data until saturation is reached. Data collection and analysis are performed in an iterative manner. We expect to present our definitive results at the Ca-PRI conference in March 2023.

Conclusions

Qualitative research is essential to gain insights into why the implementation of health care programs work for one (setting) and not for the other. Results of this qualitative study can help to adapt the implementation of the PA program so that it best meets the needs of patients.

231 Characterizing oncology and primary care involvement in breast cancer survivorship care delivery in the United States (US)

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Objectives

The current quality of breast cancer survivorship care in the US is suboptimal, especially among vulnerable populations at risk for poor outcomes. While organizations have called for shared care between primary care providers (PCPs) and oncologists, implementation of these models has been challenging across the diverse care delivery settings in the US. This is due, in part, to our lack of understanding of evolving provider roles during survivorship. We surveyed breast cancer survivors to characterize provider involvement in the delivery of survivorship care and management of survivorship issues, and explore disparities in provider involvement among vulnerable sub-populations.

Method

iCanCare is a population-based study of US women with early-stage breast cancer diagnosed in 2014-2015 and surveyed 6 years into survivorship (2021-2022) (expected final N=1430, 60% current response rate). Respondents reported on: 1) which provider has been most responsible for providing your survivorship follow-up care (PCP-led, shared-care, oncologist-led); and 2) PCP management of survivorship issues (summary scale of 8-items asking respondents how often they discussed a survivorship issue, such as recurrence worry, with their PCP; overall response range from 0-40). We examined patient factors associated with PCP-led delivery and management of survivorship issues using multinomial logistic and linear regression, respectively.

Results

In this preliminary sample, 23% reported PCP-led delivery of their survivorship care, 19% reported shared-care between the oncologist and PCP, and 58% reported oncologist-led delivery. Overall, PCP management of survivorship issues was moderate (mean summary score 19.3, SD 7.0). We did not find statistically significant variation in report of PCP-led delivery of survivorship care by patient factors. Women who were unemployed (vs. employed) were more likely to report greater PCP management of survivorship issues (mean 22.2 vs. 18.8, $p < 0.01$)) as were patients with 2+ comorbidities (vs. 0 comorbidity) (mean 20.2 vs. 18.0, $p<0.01$). Results were confirmed in multi-variable analyses.

Conclusions

We found that in this large, diverse population of breast cancer survivors who are more than five years out from initial treatment, reports of PCP involvement in survivorship was generally low. Notably, some

sub-populations of vulnerable patients did report greater PCP management of survivorship issues. Lack of primary care involvement, especially later in survivorship, is a missed opportunity for achieving high-quality survivorship care. As we implement shared-care models as one strategy to improve quality, focusing next steps on engaging PCPs effectively and empowering them to be active participants in survivorship care delivery (e.g., clearly delineating roles and responsibilities) is critical.

233 Effect of a care coordination intervention among vulnerable cancer survivors on patient-reported outcomes

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Objectives

To examine the effect of a care coordination intervention (Project CONNECT) for vulnerable breast and colorectal cancer survivors with multiple comorbidities on change in patient-reported outcomes.

Method

Using a quasi-experimental design, eligible patients were administered a telephone survey pre-intervention then 6- and 12-months post-intervention to measure patient-reported care coordination using an adapted Picker Patient Experience of Care (coordination subscale) measure with scores on a 1-3 scale, with a higher score representing worse perceived care coordination. Summary statistics described patient characteristics and Generalized Estimating Equation assessed population-average changes in care coordination adjusted for patient characteristics.

Results

70% of patients had breast cancer and 30% had colorectal cancer. Average age of eligible patients was 55 years (SD: 15.1). Our sample was predominantly women (79%) and over half were Hispanic ethnicity. After adjusting for patient characteristics, patient-reported care coordination improved significantly after intervention (β= -0.062 [-0.014 – -0.108]).

Conclusions

Project CONNECT improved patient perception of care coordination, suggesting that a registry identifying complex cancer survivors and a dedicated nurse coordinator bridging primary care and oncology is a promising approach to improve care delivery outcomes for cancer survivors with chronic conditions in safety-net health settings.

235 Factors influencing implementation of a multicomponent intervention to improve care coordination for vulnerable cancer survivors with multiple comorbidities

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Objectives

This study aimed to: 1) identify factors influencing implementation of a multicomponent care coordination intervention (nurse coordinator plus patient registry) focused on cancer survivors with multiple comorbidities in an integrated safety-net system, and 2) identify mechanisms through which the factors impacted implementation outcomes.

Method

We conducted semi-structured interviews (patients, providers, and system leaders), structured observations of primary care and oncology operations, and document analysis during intervention implementation between 2016-2020. The Practice Change Model (PCM) guided data collection to identify barriers and facilitators of implementation; the PCM, Consolidated Framework for Implementation Research, and Implementation Research Logic Model guided four immersion/crystallization data analysis and synthesis cycles to identify mechanisms and assess outcomes. Implementation outcomes included appropriateness, acceptance, adoption, and penetration.

Results

The intervention was appropriate and acceptable to primary care and oncology teams because it addressed patient needs and intervention was supported by strong evidence. Active and sustained partnership with system leaders supported these outcomes. There was limited adoption and penetration early in implementation because the intervention targeted only breast and colorectal cancer patients. These criteria created barriers in practice where patients with all cancer types receive care. Intentional flexibility built into our implementation design facilitated adoption and penetration. Regular feedback from system partners and rapid cycles of implementation and evaluation led to real time adaptations increasing adoption and penetration.

Conclusions

Evidence-based approaches to coordinating care across oncology and primary care teams for underserved cancer survivors can be implemented successfully when system leaders are actively engaged and flexibility in implementation is intentionally embedded to facilitate integration and uptake across the health system.

238 The impact of anxiety or depression on early diagnosis of cancer – cohort study using linked electronic health records

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Objectives

Pre-existing conditions may impact the early diagnosis of cancer through various mechanisms. They may cause disadvantage by offering a plausible explanation for symptoms of cancer or contributing to competing demands for clinicians or patients. Alternatively, they may improve outcomes through greater surveillance due to increased interactions with healthcare services. Anxiety or depression could influence a patients' health-seeking behaviour or clinicians' assessment of symptom severity or risk associated with referral for further investigation. As part of the Spotting Cancer among Comorbidities (SPOCC) programme, we explored the impact of recorded anxiety or depression on cancer stage, route to diagnosis, and 30-day mortality.

Method

We conducted a retrospective cohort study using electronic primary care records from the Clinical Practice Research Datalink's Aurum database linked to national cancer registry and mortality data. We selected patients aged 40+ with incident cancer in the registry between 2012-2018 with linked data, and excluded patients with <3 years prior registration at their GP practice. Anxiety/depression diagnoses were captured through relevant SNOMED codes and prescriptions, and were combined due to their substantial overlap in coding. We conducted logistic regressions for each outcome; advanced stage (I-II vs III-IV), 30-day all-cause mortality, emergency routine (y/n) and two-week wait referral route (y/n).

Results

Of 288,297 patients with a cancer diagnosis, 46.4% were female, the mean age was 70.0 (sd 12.5) years and 12.4% had anxiety or depression. The impact of anxiety/depression on outcomes varied considerably by cancer site, though with no clear associations with stage. Anxiety/depression increased odds of 30-day mortality for prostate, rectum, ovary and stomach cancers, and of emergency route for 12/25 sites. The sites where the largest impact of anxiety/depression on emergency route to diagnosis were cervix, myeloma, ovary, liver, stomach and prostate cancers. There were only a few notable cancer sites where patients with anxiety/depression had more favourable outcomes.

Conclusions

Pre-existing anxiety or depression was associated with disadvantage in the cancer diagnostic process across multiple sites. In particular, patients with anxiety or depression were more likely than those without to be diagnosed via an emergency route to diagnosis, considered the least desirable route, with correspondingly higher likelihood of dying within a month of diagnosis. Anxiety is a potential alternative explanation for key symptoms of stomach cancer, for which disadvantage related to anxiety/depression

was found over 3 out of 4 outcomes. Further work is being carried out in SPOCC to understand patients' and clinicians' thoughts around causal mechanisms for these findings.

243 Characterising the volume and variation of multiple urgent suspected cancer referrals in England

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Objectives

Each year, a large and increasing number of urgent suspected cancer (USC) referrals, often referred to as 'two-week wait' (TWW) referrals, are made. There are anecdotal reports that the same patients are referred multiple times, for the same or a different suspected cancer type (speciality or referral type), and sometimes within a short period.

However, it is currently unknown how often patients are referred more than once, the time between repeated referrals and which referral types occur together. We aimed to quantify the number of these multiple USC referrals, to identify patterns and to consider common combinations.

Method

Using Cancer Waiting Times data, we analysed a cohort of referrals in England between April 2013 and March 2018. All referrals were categorised into three categories: single first USC, simultaneous first USC (within seven days) or subsequent USC (with sub-categories since the first referral, for <4, 4-7, 8-11 or 12+ months); based on intervals between referral dates for any previous or subsequent referrals, and any prior converted referrals.

We report the frequency of referrals per patient, and the distribution of referral categories by financial year and referral type. Referral type pairings within the first four months were studied.

Results

Over the period, 7.5 million people had an USC referral, with 1 in 5 having two or more, and with 9.5 million total referrals. Referrals were categorised as 90.0% single first USC, 1.1% simultaneous first USC, 2.6 – 2.8% for each of subsequent <4, 4-7 and 8-11 months, and 0.8% subsequent 12+ months.

The proportion of single first USC ranged from 84% (suspected leukaemia) to 95% (suspected testicular).

Suspected lower gastrointestinal referrals were included in more than 100,000 pairings within four months, and in the three most common pairings for 11/16 referral types, including 30% for upper gastrointestinal and 28% urological.

Conclusions

There is a large volume of multiple referrals recorded, particularly within a year of the first urgent suspected cancer referral. Some referral pathways, potentially with more specific symptoms, have a greater proportion of single first USC referrals. Common referral combinations suggest areas which may benefit from pathway re-organisation. Future work will analyse the impact of multiple referrals on the likelihood of cancer diagnosis, diagnostic intervals and cancer outcomes.

246 Reach and Effectiveness of an HPV Self-Sampling Intervention for Cervical Screening in Ontario, Canada

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Objectives

South Asian, Middle Eastern and North African women living in Ontario, Canada have some of the lowest rates of cervical screening and a suggested higher burden of cervical cancer. Increasing international evidence around HPV testing has lead to many screening programs moving from Pap tests and towards HPV testing with the option of HPV self-sampling appearing promising for under- or never-screened (UNS) women. In this study, we aimed to understand the reach and effectiveness of an HPV self-sampling intervention amongst these disproportionately UNS women in Peel Region and surrounding areas within Ontario, Canada.

Method

We used a community-based mixed methods approach guided by the RE-AIM framework. We recruited over 100 UNS racialized immigrant women aged 30-69, during the period of June 2018 to December 2019. Our recruitment strategy centred around community champions (i.e. trusted female members of communities) to engage people in areas throughout Toronto and the Peel Region. Participants completed a questionnaire about their knowledge, attitudes and practices around cervical cancer screening, before self-selecting whether to use the HPV self-sampling device. We then completed follow-up questions to understand their experience with self-sampling or if they went on to get a Pap test.

Results

In total, 108 women participated, with 69 opting to do self-sampling and 39 not. Almost everyone followed through and used the device (n=61) and found it 'user friendly.' The experience of some suggests that clearer instructions and/or more support once at home is needed. Additionally, the data also suggests that privacy and comfort are common barriers for UNS women, and that self-sampling begins to address these challenges. Across both groups addressing misconceptions and misinformation is needed to encourage some UNS women to be screened. Family, friends and peers seemed to also have an impact on decisions around screening.

Conclusions

HPV self-sampling is seen as an acceptable alternative to a Pap test for cervical screening, by some but not all UNS women. Self-sampling begins to address some of the challenges that can often prevent women from initiating or delaying screening, and is already being offered in some programs around the world as an alternative to clinical cervical cancer screening.

248 Identifying barriers to help-seeking for rural residents experiencing symptoms of colorectal cancer and developing strategies to improve early-presentation and diagnosis: The RURALLY Study

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Objectives

Rural cancer inequalities have been evidenced internationally for over 30 years, with rural cancer patients 5% less likely to survive than urban cancer patients, even after adjusting for socio-economic status. Prolonged time to cancer diagnosis is associated with poorer outcomes and there is evidence to suggest that rural patients may face diagnostic delays during the patient and primary care intervals of the diagnostic pathway. This study sought to understand barriers to presentation for people residing in rural areas who had been experiencing colorectal cancer (CRC) symptoms and to co-design an intervention to facilitate earlier presentation and diagnosis in this population.

Method

Patients registered at four GP practices in rural North Yorkshire were randomly invited to take part and consenting participants (n=720, 21% response rate) returned a questionnaire about recent symptomatic experiences and demographic characteristics. We purposively sampled 40 participants for a semi-structured interview about their symptom experience, appraisal, help-seeking decision-making and access of health care services, as situated within their rural context. Transcripts were independently coded by 2 researchers and data, codes and themes were collaboratively explored and developed by the wider team. Findings were shared with rural stakeholders at 3 online co-design events, where a prototype intervention was iteratively developed.

Results

Four barriers and facilitators to help-seeking were identified from interviews: A desire to rule-out cancer prompted help-seeking; however, self-reliance and stoicism served as barriers to help-seeking for both “native” and “migrant” rural residents; time scarcity hindered help-seeking, because of seasonal workloads and lost income; patients were often reluctant to re-consult for unresolving symptoms, which was seen as a waste of time; GP/Patient relationships were central to willingness to consult, with poor relationships a barrier to presentation, particularly amongst “native” rural residents. The co-designed early presentation intervention incorporated a community-based ‘push’ coupled with a ‘pull’ into services from primary care.

Conclusions

People residing in rural areas experience barriers to presentation specific to rural environments and cultures, including health beliefs of stoicism and hardiness, and the impact of taking time to consult on productivity and income, which is acutely felt because of the prevalence of self-employment in the farming and tourism industries in rural areas. “Native” rural residents particularly value ‘old-fashioned’ family practice and improved continuity of care could increase timeliness of presentation. These patients reported being less willing to re-consult for unresolved, or worsening, symptoms and a more active approach to safety-netting could reduce primary care intervals for rural CRC patients.

250 Formulation of a clinical practice guideline on cancer screening for primary care

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Objectives

Cancer screening in primary care has been proven effective in reducing mortality, increasing health-related quality of life, and saving unnecessary healthcare expenditure. In order for successful implementation of screening programmes, primary care physicians (PCPs) play a significant role in enhancing screening uptake, improving screening test compliance, and choosing the most appropriate tests individualised to participant needs. We aim to formulate a clinical practice guideline by generating evidence-based consensus statements to offer an up-to-date guide to inform PCP practice. The statements included four screen-relevant cancers (colorectal, breast, prostate and cervical) commonly seen in primary care settings composed by a guideline-steering committee.

Method

We performed a systematic review of the literature by identifying relevant studies using Ovid MEDLINE up to 31 October, 2022. National and international guidelines on CRC screening were solicited. In addition, evidence documented in existing guidelines which met the inclusion criteria was evaluated for inclusion. All abstracts and articles were examined for relevance with additional papers identified from cross-checking of references and recommendations from the consensus group panel. We assessed methodological quality of eligible studies included based on the Quality Assessment of Diagnostic Accuracy Studies (QUADAS). Information on study characteristics and methods, participant characteristics, screening tests and interventions was extracted.

Results

We found a total of 1,658,360 citations for review, resulting in 97 eligible reviews and/or meta-analysis. The recommendations of the practice guidelines comprised 43 statements, including for each of the four cancers: (1). Recommended screening tests; (2). Risk-based, tailored screening practice; (3). Enablers and barriers of screening; (4). Strategies to improve screening uptake; (5). Strategies to enhance persistent compliance; (6). The use of decision aid and shared-decision making; (7). The adoption of multi-disciplinary team approach for holistic participant care; and (8). Quality control. Each statement was graded to indicate the level of available evidence and the strength of recommendation.

Conclusions

With increasing mortality from these cancers as leading causes of deaths worldwide, the role of PCPs in coordinating cancer screening programmes is crucial. Risk-based screening approaches have been shown to enhance programme efficiency and screening yield. PCP-led invitations and simple reminders, including the use of decision-making aids and provision of screening test choice, have been found to

enhance screening uptake and persistence over time. Allied health professionals may strengthen primary care delivery of screening programmes. Quality metrics for non-invasive screening programs should be developed and program performance should be assessed periodically, and practice guidelines updated every 5 to 10 years.

251 Impact of the COVID-19 Pandemic on the Quality of Breast Cancer Survivorship Care in the United States (US)

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Objectives

The COVID-19 pandemic has significantly disrupted many aspects of cancer care in the United States. However, the extent to which it has disrupted survivorship care and its impact on disparities in the receipt of guideline-concordant survivorship care is unclear.

Method

The iCanCare study is a longitudinal study of women diagnosed with breast cancer in 2014-15 in the US. Women were surveyed during initial treatment and again 6 years later (2021-2022) (Expected final N=1430, 60% current response rate). Respondents were asked whether their ability to get general preventive care, breast cancer follow-up care, fill/re-fill medications, and communicate with primary care and oncology providers was worse or better during the pandemic. A summary scale was created and categorized as high (>3) vs. low impact (<=3). Respondents also reported receipt of mammography, flu vaccine, colorectal and cervical cancer screenings in the last 2 years.

Results

In this preliminary sample of 1252 women, 40% reported the COVID-19 pandemic had a high impact on their survivorship care. A greater proportion of Latina and Asian women reported a high impact compared to white women ($p<0.001$). Women who reported a greater impact of COVID-19 were less likely to receive colorectal cancer screening (adjusted OR: 0.7, 95% CI: 0.5-0.9). Latina women were less likely to receive mammography (adjusted OR: 0.2, 0.1-0.6). Black women were less likely to receive flu vaccines and cervical cancer screening (flu vaccine adjusted OR: 0.5, 0.3-0.8; cervical cancer screening adjusted OR: 0.1, 0.03-0.4).

Conclusions

In this diverse, population-based sample of women with a history of breast cancer receiving survivorship care in the US, the COVID-19 pandemic has significant and negative impact on their general preventive and surveillance care. The negative impact of the COVID-19 pandemic on the quality of survivorship care was greatest in women of color. Additional strategies to ensure breast cancer survivors receive guideline-concordant survivorship care are likely necessary to mitigate the negative effects of the pandemic, particularly for women of color.

252 Duplication and Fragmentation in Breast Cancer Survivorship Care across Primary Care and Oncology in the United States (US)

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Objectives

The coordination of cancer survivorship care across primary care and oncology is challenging in the diverse settings of the US health care delivery system. Despite a robust literature documenting the challenges of implementing shared survivorship care, very little is known about the extent to which survivorship care is duplicated or fragmented across primary care and oncology, and whether disparities exist in these coordination outcomes is unclear.

Method

The iCanCare study is a longitudinal study of women diagnosed with breast cancer in 2014-15 identified in the Los Angeles and Georgia Surveillance, Epidemiology and End Results registries. Women were surveyed during initial treatment and again approximately 6 years later in survivorship (2021-22) (Expected final N=1430, 60% current response rate). Participants were asked about how often things were done twice (duplication) or key aspects of care were missed (fragmentation), and who led their survivorship care delivery (oncologist, shared care, PCP). The multivariable-adjusted associations of participant characteristics and survivorship care delivery model with duplication and fragmentation were evaluated using multivariable logistic regression.

Results

In this preliminary sample, 30% reported duplication and 32% reported fragmentation in their breast cancer survivorship care. A greater proportion of Latina, Black, and Asian women reported duplication or fragmentation compared to white women (both $p<0.01$). Latina women were more likely to experience duplication in their care when compared to white women (aOR: 2.0, 95% CI: 1.3-3.0). Women who reported oncologist-led or shared care delivery were more likely to experience duplication when compared to PCP-led care delivery (oncology-led aOR: 2.2, 1.45-3.2; shared care aOR: 2.2, 1.4-3.5). Fragmentation did not differ across patient characteristics or survivorship care delivery model.

Conclusions

In this diverse, population-based sample of women with a history of breast cancer receiving survivorship care in the US, a notable proportion experienced duplication and/or fragmentation in their breast cancer survivorship care across primary care and oncology. Our findings also support that more PCP involvement in survivorship care delivery may mitigate duplication in survivorship care. Scalable

strategies to promote communication and coordination across oncology and primary care teams, and increase PCP involvement in care delivery are needed to promote the coordination of high-quality survivorship care.

253 Comparing primary care referrals and secondary care presentations with linked data from the National Cancer Diagnosis Audit

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Objectives

Diagnosis of cancer soon after an emergency hospital admission (emergency presentation; EP) is a marker of adverse prognosis and nearly one fifth of all cancer patients are diagnosed through this route. To reduce emergency presentations of cancer, it is necessary to have a more precise understanding of underlying mechanisms.

We aimed to establish the concordance between emergency referrals (ER) based on clinician-collated primary care data, and algorithmically assigned diagnostic routes based on routine secondary care data (EP). We subsequently examined emergency pathways to identify patient/tumour factors and outcomes associated with an 'emergency diagnosis', i.e., ER and/or EP.

Method

National Cancer Diagnosis Audit (NCDA) data on English cancer patients diagnosed in 2018 were linked to the National Cancer Registration Dataset including Routes to Diagnosis (RtD).

Emergency diagnosis was defined as a cancer patient who had an ER, EP or both. Logistic regression was used to examine: a) patient and tumour factors associated with emergency diagnosis; b) concordance of ER (NCDA-recorded) with EP status (RtD-assigned); c) likelihood of a GP-initiated ER or self-referral to A&E (two ER sub-categories); d) prognostic implications (1-, 3-, 6- and 12-month mortality) in adults with a non-screen-detected cancer, with at least one primary care consultation.

Results

One in five patients were emergency-diagnosed: 4% following ER; 7% following EP (over half had an urgent suspected cancer referral); and 8% following both ('ER-EP'). Advanced stage and certain cancer sites were associated with greater risk of emergency diagnosis, while alarm symptoms at presentation with lower risk. Concordance of ER and EP increased with age and number of comorbidities. Patients with non-alarm symptoms were more likely to self-refer to A&E. Emergency diagnosis was associated with higher short-term mortality compared with non-emergency diagnosis, particularly ER-EP or EP (9-fold and 8-fold higher, respectively), while the association with ER was weaker (3-fold higher).

Conclusions

We have identified certain patient and tumour factors that are associated with emergency diagnosis. Patients with both ER and EP have the worst short-term outcomes. Some elective referrals resulted in an EP, possibly due to symptom worsening while awaiting specialist investigation or assessment. Also, not all ERs result in EP, possibly due to lengthy diagnostic processes that obscure the link between the referral and the diagnosis. Further analysis will be conducted to understand the clinical presentation of an emergency diagnosis, which may identify opportunities for interventions to reduce emergency diagnosis of cancer.

254 Implementation of social needs screening for newly diagnosed breast cancer patients: Evaluation of facilitators and barriers to successful screening.

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Objectives

Social needs can inhibit receipt of timely breast cancer treatment. Systematic social needs screening is a vital part of comprehensive cancer care delivery. However, little is known about the implementation of social needs screening for women with breast cancer. Translating Research Into Practice (TRIP) was a community engaged stepped wedge trial designed to improve receipt of timely breast cancer care among under-served patients through implementation of a city-wide, integrated patient navigation intervention. This project describes social needs screening implementation, including fidelity, acceptability, barriers and facilitators to screening from navigator and patient perspectives.

Objectives:

- To recognize the importance of standardized implementation of social needs screening
- To describe implementation challenges to social needs screening in breast cancer care

Method

TRIP was conducted at five cancer care sites in Boston, MA from 2018 to 2022. A social needs screening survey covered 8 domains (e.g., housing, food, transportation). Fidelity was defined as completion of a social needs screening within three months of diagnosis. Data sources for this mixed methods study included a patient registry completed by patient navigators and key informant interviews with navigators (n=8) and patients (n=21). Frequency distributions quantified screening fidelity. Rapid qualitative analysis techniques were used.

Results

602 women newly diagnosed with breast cancer were included. Mean age was 59 (std dev 13), 51% were Black, 27% were Latino, 49% spoke a primary language other than English and 47% had Medicaid insurance. Fidelity to completion of the initial social needs screening was 69%. Qualitative analyses found high screening acceptability from navigators and patients. Navigators cited strong beliefs in the goals of screening and found the screening tools and training useful. Barriers to screening acceptability included screening patients across many cultures, uncertainty that patients were comfortable being screened and not feeling part of the cancer care team. Facilitators included practice over time and

conducting screening conversationally. Patients reported a higher degree of acceptability being screened for some social needs (e.g., food, transportation) than others (e.g., financial). Barriers to screening included perceived stigma and lack of language concordance with the navigator. Facilitators included feeling comfortable with the navigator.

Conclusions

With appropriate staffing, protocols and training, systematic social needs screening can be implemented with high fidelity and acceptability by navigators and patients with breast cancer. Continued efforts to integrate social needs screening as a core element of breast cancer care navigation are needed.

271 Involving context information from the general practitioner in multidisciplinary meetings about older patients with cancer

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Objectives

General practitioners (GPs) often have good contextual knowledge of their older population. Context information comprises information about a patients' physical, psychological and social circumstances. However, the GP is often not involved in treatment decision-making for older cancer patients in hospital. Because older patients have a higher risk of negative treatment outcomes, it is important to incorporate context information in the treatment decision-making process and enable information exchange between healthcare professionals. The aim of our study was to describe which context information was shared during multidisciplinary meetings about older cancer patients in the hospital and which information was obtained from GPs.

Method

Between September and December 2022 we included patients aged 70 years and older with a new diagnosis of a solid malignancy discussed in a multidisciplinary meeting in six departments in three hospitals in the Northern part of the Netherlands. The study was a collaboration between primary and secondary care. We observed whether context information was discussed, for which domains this was provided (physical, psychological and social) and whether this information had been provided by the GP.

Results

A total of 45 multidisciplinary meetings was observed. We present the preliminary results of 12 meetings, during which 27 patients were discussed, with the aim of completing the data before presentation at the conference. Context information was discussed for 15 patients (56%), comprising the physical (14/15), psychological (5/15), and social (2/15) domain. No context information was provided by the GP. We aim to update the data before the congress takes place, with a target of 45 meetings and 224 patients.

Conclusions

Currently, in approximately half of the cases, no context information about older patients with solid malignancies is shared during multidisciplinary meetings in the hospital. Furthermore, there is almost no involvement of the GP in sharing context information. Improving this process, will provide a solid basis for shared decision-making and patient-tailored care.

Other category

Communication

276 Risk of cancer following a low haemoglobin test result by ethnic group – the EPIC study

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Objectives

Previous research has indicated that low haemoglobin levels or anaemia may be linked to increased cancer risk. There is also some evidence that levels of haemoglobin differ between ethnic groups. It is unclear whether the utility of low haemoglobin to predict cancer risk is similar across ethnic groups.

This study uses primary care-linked patient records to investigate the risk of cancer for patients of different ethnic groups who have a low haemoglobin test result.

Method

A retrospective cohort design using Primary Care data from the UK's Clinical Practice Research Datalink (CPRD) Aurum database with linkage to the national cancer registry. The cohort comprised patients registered at general practices who had a record of a haemoglobin test result between 2010 and 2017, were aged 40 or over with no prior cancer diagnosis. Low haemoglobin was defined as less than 13g/dL for men, or less than 12g/dL for women. Multi-level logistic regression was used to assess if the predictive value of an abnormal test result varied across broad ethnic groups (White, Black, Asian, Mixed, Other).

Results

4.4 million patients had a haemoglobin test recorded, 12.66% (556 924) had a low haemoglobin value. 2.0% (87 656) received a diagnosis of cancer within one year. A low haemoglobin test result was indicative of a raised cancer risk in all ethnic groups. 3.1% of White patients with a low haemoglobin result were diagnosed with cancer, compared to 2.0% for Black patients and 1.3% for Asian patients. The Odds Ratio (OR) of cancer diagnosis for patients with low vs normal haemoglobin was highest for White patients at 2.47, and lower for Asian and Black patients at 2.13 and 2.06.

Conclusions

A low haemoglobin value is predictive of increased cancer risk in patients from all ethnic groups. White patients with anaemia were more likely to receive a cancer diagnosis than Black or Asian patients with anaemia. This is the case both in absolute terms and relative to patients of the same ethnic group without anaemia. These are preliminary results and further work is ongoing.

The ultimate aim of our research is to contribute to evidence-based guidance for clinicians on how best to interpret blood test results in different ethnic groups, to improve health outcomes and reduce health inequality.

277 Public attitudes towards discussing possible cancer signs and symptoms in community pharmacies

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Objectives

Initiatives are underway in parts of the UK that include community pharmacies assessing and referring members of the public who present with potential signs and symptoms of cancer to secondary care without first seeing a General Practitioner (GP). These initiatives aim to widen access to healthcare and encourage more timely recognition and referral of suspected cancer. We set out to understand public attitudes towards discussing health concerns with a Pharmacist/Pharmacy staff.

Method

Three quantitative surveys were administered by YouGov to their online public panel. Data was collected on attitudes to discussing health concerns with a Pharmacist/Pharmacy staff in July 2022, attitudes towards discussing potential cancer signs and symptoms with a Pharmacist/Pharmacy staff in October 2022, and preferences for discussing potential signs and symptoms of cancer with a GP/Doctor vs. a Pharmacist/Pharmacy staff as well as preferences for location in a Pharmacy (counter/till vs. private room) in which to discuss these in December 2022. Samples were nationally representative UK-based, n=2,119, n=2,075 and n=2,052, respectively.

Results

Four in ten (40%) were concerned discussing their health concerns with a Pharmacist/Pharmacy staff may result in wrong decisions being made about their care/treatment, particularly older groups (55+). A greater proportion reported feeling uncomfortable discussing persistent changes in bowel habits (58%), bladder habits (49%), unexplained bleeding (45%) and an unexplained lump/swelling (42%) with a Pharmacist/Pharmacy staff. Further, most (≥67%) reported a preference to discuss these symptoms with a GP/Doctor. Of those who would discuss these symptoms with a Pharmacist/Pharmacy staff, at least half would prefer to discuss symptoms in a private room than at the counter/till.

Conclusions

More research is needed to ensure that initiatives in community pharmacies are appropriately tailored to engage and support members of the public. This should involve consulting Pharmacists/Pharmacy staff and members of the public to more fully understand what barriers and enablers exist to discussing potential signs and symptoms of cancer in a pharmacy setting. Evidence presented here provides useful indications and can support the development of national and regional initiatives that aim to widen access to healthcare and encourage more timely recognition and referral of suspected cancer.

278 GPs' use of symptomatic FIT and public barriers and enablers to completion

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Objectives

Symptomatic Faecal Immunochemical Testing (FIT) is a key test used for triage to support the management of patients presenting with possible bowel cancer symptoms in primary care. Studies using FIT for low and high-risk symptomatic individuals report acceptable sensitivity and specificity. The application of FIT supports risk assessment to help identify and stratify patients who need further investigation. To further our understanding of the application of FIT in primary care, we explored General Practitioners' (GPs) utilisation by symptomatic patient risk. We also explored public attitudes towards FIT completion to identify barriers and facilitators.

Method

An online quantitative survey was administered to GPs and to members of the public in July 2022. Data from GPs was collected by the research agency medeConnect on when to request a FIT for eligible symptomatic patients. Sample was n=1,000 regionally representative GPs, UK-based. Data from members of the public was collected by the online panel provider YouGov on likely barriers and enablers to FIT completion and return. Sample was n=2,119 nationally representative, UK-based members of the public.

Results

64% of GPs would request a FIT before making an urgent referral for low-risk symptomatic patients, 59% alongside an urgent referral for high-risk symptomatic patients, while 27% would use their clinical judgement to decide for all symptomatic patients.

Top barriers towards symptomatic FIT completion included being frightened of what the test might find and finding it too embarrassing and messy to complete (10%,9%,7%,respectively); these were all endorsed significantly more by previous non-completers. Having printed/downloadable step-by-step guidance, a clear explanation from a GP/Doctor and more information on the importance of completing the test were most endorsed as enablers (34%,32%,25%,respectively).

Conclusions

FIT helps support risk assessments performed by GPs and can optimise onward patient referral. Although a large proportion of GPs in our sample reported they would request FIT for low and high-risk symptomatic patients, this could be improved. Educational outreach activities should continue to support GPs further with the aim of increasing FIT utilisation and confidence regarding use. The reported barriers and enablers to FIT completion evidenced here could inform the information GPs provide to symptomatic patients to support patient engagement with FIT.

279 Remote vs. face-to-face GP appointments: Availability and public preferences

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Objectives

During COVID-19, the availability of face-to-face (F2F) appointments was reduced and access to General Practitioners (GPs) was mostly via video, online and telephone to reduce infection. Over the last year, F2F GP appointments have become more widely available with remote appointments continuing to be offered to support greater access to GPs. We set out to update our knowledge of the types of appointment offered and public preferences.

Method

A quantitative survey was administered to an online public panel by YouGov in December 2022. The sample was nationally representative UK-based, n=2,052. Data was collected on whether patients were offered a choice over the type of GP appointment (remote vs. F2F) given to discuss a health concern and appointment type preference for the discussion of nine potential cancer signs and symptoms with a GP.

Results

A higher proportion of patients were offered a remote appointment only (32%) to see their GP about a health concern than F2F only (22%) and those offered a choice of appointment (23%). Women (35%) and older adults (55+; 36%) were offered remote appointments significantly more than men (28%) and younger adults (18-24; 23%). Of those who had a preference, the majority preferred to discuss potential cancer symptoms with their GP in person (48%-82%), with White respondents significantly more likely to report this than respondents from an ethnic minority for all possible cancer symptoms except a persistent change in bladder habits.

Conclusions

Remote GP appointments can have advantages for patient care and management, being more convenient for some patients. For others, limited digital access and literacy can restrict effective utilisation of remote consultations. Insights evidenced here suggest of those who have an appointment type preference, most are likely to prefer to discuss potential cancer symptoms with their GP in person, yet less than a quarter of patients' report being offered a choice. Fundamentally, patient preferences should be prioritised, and GP Practices should be mindful of how preferences can vary across different sociodemographic groups.

Other category

Remote vs. face-to-face General Practitioner appointments

280 Every Breast Counts: Supporting Black Women Along the Breast Cancer Journey

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Objectives

Black women in Canada experience breast cancer differently than non-Black women. Many do not feel represented in traditional models of care, where whiteness and white breast imagery dominate. The lack of representation and resources for Black women combined with systemic anti-Black racism can perpetuate the erasure of Black women's experiences. To improve the experiences of Black women, information must be trusted, targeted, and culturally relevant. Guided by principles of Participatory Action Research, we co-created a resource hub for Black women to access information spanning the breast cancer journey. specifically tailored to their unique experiences.

Method

Four Black breast cancer survivors guided the vision and goals of an online resource hub based on their experiences with breast cancer, by engaging in bi-weekly meetings and offline reviews. The project team at the Peter Gilgan Centre for Women's Cancers, in partnership with the Olive Branch of Hope, a Black women's breast cancer survivors' group, compiled relevant clinical information and a summary of the research available for Black women in Canada. Information was presented in plain language with representative videos and imagery.

Results

'Every Breast Counts' is the first comprehensive breast health resource hub created for and by Black women in Canada. The webpage serves as a reliable, trusted space for Black women to become informed around breast health, while feeling seen and heard. It provides targeted information with actionable steps around risk factors, breast awareness, screening, diagnosis, treatment, and reconstruction. A 'Resources' section directs users to relevant community resources. Information was sent out to cancer centres nationwide and the hub was profiled in the media nationally. To date, the resource hub has been accessed more than 3,500 times by users across Canada.

Conclusions

Through a process of co-creation and centering lived experience, our community-hospital partnership has successfully created a resource hub for Black women on the breast cancer journey. The hub's positive reception highlights that such resources are urgently needed and long overdue. Reliable information for Black women is one crucial component, but further systemic changes are needed to

ensure that clinical programs are able to provide trusted, culturally relatable care and that research specific to Black Canadian women is conducted to ensure delivery of the highest quality, evidence-based care for all.

Other category

Cancer journey

281 CRISP: developing a colorectal cancer risk prediction tool for use in primary care using the MRC Framework for Complex Intervention.

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Objectives

In Australia, there is poor adherence to colorectal cancer (CRC) screening guidelines with low uptake of the faecal occult blood test and overuse of colonoscopy. We conducted a program of research following the Medical Research Council's (MRC) Framework for Developing and Evaluating Complex Interventions, to develop and trial a risk prediction tool to improve risk appropriate screening for colorectal cancer in general practice in Australia. This presentation will outline how we followed the MRC Framework, including the results of the trial of CRISP on risk-appropriate screening in general practice.

Method

The CRISP program of research included: 1. A systematic review of cancer risk tools in general practice, 2. An exploratory study to determine how to communicate risk, 3. A feasibility and acceptability study, 4. A Phase II study to test the trial methods in general practice, 5. A study with general practice patients exploring the capability of patients to self-complete the risk tool, 6. A larger randomised controlled trial to determine the effect of CRISP on risk-appropriate screening, and 7. A parallel implementation study.

Results

We built a CRC risk prediction tool 'CRISP' using a novel epidemiological model. We developed risk outputs including clinical guidelines and best practice risk communication which we tested with general practice patients. CRISP was acceptable and feasible in general practice as a nurse-led intervention, and we trialed the final version in 722 general practice patients (362 intervention:360 control) in Australia. In those due CRC screening during follow-up, there was a 20.3% (95% CI:10.3-30.4%) increase [intervention 59.8% vs control 38.9%; OR: 2.31 (95% CI 1.51-3.53) $p<0.001$] principally by increasing faecal occult blood testing in those at average risk.

Conclusions

The MRC Framework provided a step-by-step pathway for developing a precision tool for use in general practice which led to an increase in risk-appropriate screening for CRC in people eligible people. We will follow up the participants to assess screening behaviour after five years.

282 Prediction Algorithm for Gastric Cancer in a General Population: a validation study

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Objectives

Worldwide, gastric cancer is a leading cause of cancer incidence and mortality. This study aims to devise and validate a scoring system based on readily available clinical data to predict the risk of gastric cancer in a large Chinese population.

Method

We included a total of 6,209,697 subjects aged 18 years or older who received upper digestive endoscopies in Hong Kong from 1997 to 2017. A binary logistic regression model was constructed to examine the predictors of gastric cancer in a derivation cohort (n=4,347,224), followed by validation in a randomly split cohort (n=1,862,473). The algorithm's discriminatory ability was evaluated as the area under the curve (AUC) of the mathematically constructed receiver operating characteristic (ROC) curve.

Results

Age, male gender, history of Helicobacter pylori infection, use of proton pump inhibitors, non-use of aspirin, non-steroidal anti-inflammatory drugs (NSAIDs), and statins were significantly associated with gastric cancer. A score of ≤8 was designated as 'average risk (AR)'. Scores at 9 or above had a higher prevalence of gastric cancer and hence were assigned as 'High risk (HR)'. The prevalence of gastric cancer was 1.98% and 0.095%, respectively, for the HR and LR groups. The AUC for the risk score in the derivation and validation cohort was 0.834, implying an excellent fit for the model.

Conclusions

This study has validated a simple, accurate, and easy-to-use scoring algorithm which has a high discriminatory capability to predict gastric cancer. The score could be adopted to risk stratify subjects suspected as having gastric cancer, thus allowing prioritised upper digestive tract investigation.

283 A randomised controlled trial of a digital intervention (Renewed) to support symptom management, wellbeing and quality of life in cancer survivors

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Objectives

Cancer survivors are often left with consistently poor quality of life after primary treatment ends. We developed an evidence, theory and person-based digital intervention (Renewed) which aims to improve quality of life in cancer survivors - supporting increasing physical activity, improving mental health, improving diet and weight loss. The objective was to test the effectiveness of this bespoke digital intervention to support cancer survivors in primary care.

Method

This was a pragmatic parallel open randomised trial. Participants were recruited through primary care and randomised to either a generic NHS website ('Live Well, n=906), the bespoke Renewed website (n=903) or Renewed plus brief primary care healthcare worker support (n=903). Participants had finished primary treatment for colo-rectal, breast or prostate cancer and had with lower Quality-of-Life (European Organization for Research and Treatment of Cancer QLQ-C30 (EORTC QLQ-C30) score<85). Primary outcome: self-reported EORTC QLQ-C30. Secondary: self-reported EORTC QLQ-C30 subscales (global self-rated health; functional and symptom subscales), psychological measures, resource use.

Results

At 6 months there were improvements in EORTC QLQ-C30 score in all groups, but no between-group differences (vs generic: Renewed -0.42 (-1.57, 0.72); Renewed-with-support 0.52 (-0.53 -1.57)). By 12 months the Renewed-with-support group continued to improve compared to generic advice (1.42, 95% CIs 0.33 to 2.51), with largest differences in the prostate subgroup. In both Renewed groups by 12 months subscales improved significantly for global health, dyspnoea, constipation, and enablement. For Renewed-with-support there were also significant differences for physical, cognitive and emotional functioning and fatigue. Renewed and Renewed-with-support both incurred substantially lower mean annual NHS costs per patient.

Conclusions

Cancer survivors quality of life improved with detailed generic online support. Providing robustly developed bespoke digital support provides additional modest longer term improvements in enablement, symptom management, and self-rated global health, with much lower NHS costs.

285 The impact of electronic risk assessment tools (eRATs) for early cancer diagnosis in general practice on GP workload and patient 'flow' during consulting sessions

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Objectives

The overarching aim of the GP workload nested study is to assess the impact of the eRATs on GP workload and patient 'flow' through consulting sessions.

The principal objective is to compare the compare the length of consultations and sessions in which an eRAT has been activated with consultations where eRATs have not been activated.

Additional objectives are:

i) to compare the length of subsequent consultations in the same session after an eRAT has been activated with consultations in sessions where eRATs have not been activated; and

ii) to to explore the frequency of interactions with patients' medical records by a GP, in the week following consultations during which an eRAT was activated.

Method

The ERICA trial is a pragmatic, cluster RCT, using allocation by GP practice. Practices are randomised 1:1 to the intervention and control arms. The present observational study is conducted with 15 intervention practices, examining duration of consultations and of whole consulting sessions in which an eRAT has been activated, and the duration of those consultations and sessions in which eRATs were not activated. We will also explore the extent of interactions with medical records in the week following an eRAT. The primary analysis will be a mixed-effects linear regression with random intercepts to account for clustering within GPs and for GPs clustering within practices. This regression will adjust for consulting GP, time of day, day of week, and mode (face-to-face, telephone, video). Residuals will be checked for normality. and the durations data will be transformed if needed, using log transformation, with bootstrapping of data if needed.

Results

Data collection is live and expected to be completed at the end of January with results available for the presentation.

Conclusions

It is not yet possible to conclude exactly how the introduction of electronic Clinical Decision Support (eCDS) tools might be associated with changes in GP workload, such as changes in consultation durations. This study will explore whether use of eRATs for cancer by GPs (and the possible subsequent discussion of cancer risk with patients) may impact on consultation duration, on patient 'flow' through consulting sessions, and on workload incurred by GPs in managing the care of patients in the two weeks after an eRAT is activated.

286 Multimorbidity in patients with incident cancer

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Objectives

The increasing burden of multimorbidity is one of the greatest challenges facing Primary Care, with an estimated 78% of consultations being with patients with 2 or more chronic conditions. The impact of pre-existing conditions on the early diagnosis of cancer needs to be better understood. Pre-existing conditions may make an already challenging process more difficult. We conducted a large quantitative exploration of how pre-existing conditions may disadvantage patients in the cancer diagnostic pathway as part of the Spotting Cancer Among Comorbidities (SPOCC) programme. Here we describe the multimorbidity context of patients with incident cancer and matched controls.

Method

Retrospective cohort study selecting all patients aged 40+ with incident cancer in the English cancer registry between 01/01/2012 to 31/12/2018 who were eligible for linkage to electronic primary care records in the Clinical Practice Research Datalink (CPRD) Aurum. Each cancer patient was matched to a control patient without cancer on age, sex, and general practice. Morbidity burden was determined using Cambridge Multimorbidity Score weightings. This metric includes 36 non-cancer conditions, which were captured using SNOMED codes and prescriptions data 12-24 months before cancer diagnosis. We describe the prevalence of conditions across cancer sites and controls, and differences in overall disease burden.

Results

Our sample included 288,297 cancer patients each with a matched control. The prevalence of individual conditions was broadly similar between cancer patients as a whole and controls, and for both samples the percentage with at least one condition was 83.8%. Overall multimorbidity burden was greatest in patients with lung and liver cancers, and least for testicular cancer. Alcohol misuse was most prevalent in patients with oral (25.2%), laryngeal (23.3%), or liver cancer (23.1%), diabetes was most common in liver (34.2%) and pancreatic cancer (23.1%) patients, and chronic pain was most common in lung (42.1%) and liver (39.8%) cancer patients.

Conclusions

Overall, the prevalence and burden of multimorbidity is similar between cancer patients and controls matched on age and gender. There are, however, large variations in patterns of multimorbidity and resultant burden depending on the site of the cancer. Research exploring the early diagnosis of cancer in the primary care setting must consider the context and impact of pre-existing conditions, which could introduce significant artefacts or confounding.

287 Applying a genetic risk score for colorectal cancer to patients consulting in primary care with high or low risk colorectal cancer symptoms: a cohort study in the UK Biobank

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Objectives

Colorectal cancer is the 4th most common type in the UK; only 36% are diagnosed at an early stage. Primary care is an important setting for identifying colorectal cancer earlier. One in 10 primary care consultations are for a bowel complaint and identifying patients who would benefit from referral is challenging. A genetic risk score for colorectal cancer reflects an individual's risk of developing this type of cancer in their lifetime. This study assessed whether a GRS for colorectal cancer could be a useful addition to primary care triage of patients with bowel symptoms.

Method

A cohort study using UK Biobank data linked to primary care records. Primary care records were searched for codes indicating a high or low-risk bowel symptom that could be caused by an undetected colorectal cancer. Colorectal cancers (CRCs) diagnosed within two years of the date of a consultation for a bowel symptom were identified from the UK Biobank records. Predictive logistic regression models were developed using the genetic risk score and an integrated risk model that included age at consultation.

Results

131,242 patients had at least one primary care consultation for a relevant bowel symptom. There were 621,302 consultations in 126928 patients for a low-risk symptom (abdominal pain, weight loss, change in bowel habit, or anaemia); 1928 (0.3% of consultations, 0.9% of patients) had CRC in 2 years. Of the 15,732 consultations across 10685 patients for a high-risk symptom (rectal bleeding or iron deficiency anaemia), 361 (2.3% of consultations, 2.6% of patients) were diagnosed with CRC within 2 years.

A genetic risk score associated with CRC in individuals with low-risk symptoms (p= 1.5*10^-18) and high-risk symptoms (p=1.5*10^-18). Age associated with CRC in low-risk symptoms (5.4*10^-15) but was not Bonferonni-significant for high-risk (p=0.02). The ROC AUC for the integrated risk model was 0.65 in the low-risk group and 0.62 in the high-risk group.

Conclusions

A genetic risk score for colorectal cancer could be a useful addition to the detection of CRC in primary care, but the AUC of our integrated risk model was not comparable to the current best triage test available in primary care, the faecal immunochemical test (FIT, AUC 0.92). A model combining FIT with

GRS and age may be optimal. GRS testing is not currently available in primary care, although the NHS Long Term Plan aims to roll out full genome sequencing as standard across the healthcare system. More research is needed to study the potential ethical and economic impacts of using GRS in primary care.

288 Safety netting in language discordant consultation: does it translate? A qualitative study of healthcare interpreters' perspectives on safety netting in primary care consultations.

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Objectives

As global migration increases, more patients will speak a different language to their healthcare provider. Language barriers are associated with health inequalities, including delays in cancer diagnosis. In Tower Hamlets, where 35% of adults speak a main language other than English, a local audit of cancer diagnoses showed prolonged primary care intervals in patients requiring interpreters for GP consultation. Research suggests that avoidable diagnostic delays in primary care may be mitigated by improved safety netting, however, little is known about safety netting in language discordant consultation.

We aimed to explore interpreters' perspectives on safety netting in primary care consultation.

Method

Interpreters were purposively sampled from interpreting agencies to ensure a broad representation of locally spoken languages. Participants were invited to take part in either mini focus groups (3-4 participants for ease of online facilitation) or semi-structured interviews, both held online due to COVID-19. Topic guides were developed based on public engagement work with local stakeholders, including meetings with interpreting service providers, and focus groups held with Somali and Sylheti speaking community members who would normally use an interpreter to consult with their primary care provider.

Focus groups and interviews were recorded, transcribed and analysed in NVIVO-12 using reflexive thematic analysis.

Results

Twelve interpreters were recruited to the study. All were professionals regularly involved in healthcare interpreting. Languages spoken included Bengali, Sylheti, Somali, Arabic, Portuguese, Romanian, Farsi and Urdu. Seven participated in mini online focus groups and five were interviewed.

Analysis generated four main themes: (1) unconscious familiarity with safety netting; (2) discomfort in navigation of clinical uncertainty; (3) the impact of remote interpreting on clinical interaction; (4) the interpreter's role as a bridge or cultural broker. Interpreters recognised safety netting as a familiar feature of GP consultation but were not aware that it is a deliberate consultation strategy.

Conclusions

Clinical guidelines recommend use of safety netting in primary care, however, safety netting as a purposeful construct was not well understood by interpreters. Interpreters and healthcare workers may benefit from training on safety netting in language discordant GP consultations.

Interpreters' concerns about the impact of remote interpreting on the quality and safety of clinical interaction need to be considered in the context of increasing use of remote consultations in primary care.

Further work is needed to explore the relevance of these findings in the clinical setting, particularly from the perspective of patients who require interpreters to access primary care.

290 Understanding the diagnostic timeliness of cancer patients with pre-existing morbidities: What do different methodological approaches tell us?

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Objectives

Studies have suggested that cancer patients with pre-existing co-morbidities experience longer times between presentation in primary care and diagnosis than patients without co-morbidities, potentially contributing to worse outcomes in these patients. However, establishing these timelines depends on the identification of an index consultation, often based on features of possible cancer recorded in medical records. In patients with multiple long-term conditions, it may be that such features occur more often, irrespective of any cancer presence, potentially leading to bias. Here we compare findings from traditional approaches with an alternative approach based on trends in the rate of consultations prior to diagnosis.

Method

We used linked primary care (Clinical Practice Research Datalink) and cancer registration (NCRAS) data for patients diagnosed with any cancer during 2012-2018. The Cambridge Multimorbidity Score (CMS) was used to calculate multimorbidity burden and patients were divided into 4 groups based on this score. The diagnostic interval was calculated for all patients with a feature of possible cancer in the year before diagnosis. We also used a novel maximum likelihood-based method to estimate the time before diagnosis when population consultation rates increased (the inflection point) stratified by CMS burden group.

Results

Considering all cancer sites together the median diagnostic interval was 63 days. This varied by multimorbidity burden from 35 days in those without pre-existing comorbidities to 135 days in the highest morbidity burden group. In contrast the consultation rate inflection point varied little by morbidity burden, being 126 days in those with no pre-existing comorbidities and those with low and medium morbidity burden. It was 112 days in those with the highest morbidity burden, although there was only very weak evidence that this time was less than those without comorbidities (p=0.054). Results by cancer site will also be discussed.

Conclusions

Our findings that cancer patients with multimorbidity have longer diagnostic intervals are in line with previous work using similar methodology. However, using a different approach we reach rather different

conclusions that multimorbidity has little impact on diagnostic timeliness. We posit that the different conclusions can be explained by an artefactual bias in the traditional diagnostic interval approaches. These findings suggest that patients with pre-existing morbidities do not take longer to be diagnosed, on average, and as such different explanations for worse outcomes in these patients should be sought.

291 The ThinkCancer! Intervention: results and lessons learned from a phase II feasibility trial in Wales

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Objectives

Early diagnosis is key to improving cancer outcomes. “ThinkCancer!” is a novel complex behaviour change intervention designed to reduce primary care diagnostic delays by improving stage shift in cancer diagnosis. ThinkCancer! is designed for primary care teams and consists of a series of online educational and quality improvement sessions, culminating in the design of a bespoke practice safety netting plan and nomination of a practice safety netting champion to support implementation and change. ThinkCancer! was tested in a feasibility trial to assess intervention feasibility and acceptability and to determine the most appropriate clinical outcome measures for a phase III trial.

Method

This feasibility study incorporated a pragmatic, superiority pilot RCT with an embedded process evaluation and feasibility economic analysis. The unit of randomisation was the general medical practice, and the clinical outcome data were collected from practices. Practices also completed questionnaires on practice characteristics and cancer safety netting systems. Post-workshop, individual staff members completed evaluation and feedback forms, and a select group participated in qualitative interviews. The intervention was adapted and refined throughout the trial.

Results

The trial recruited participating practices across Wales between March 2020 and May 2021, with a 5 month pause due to COVID; workshops were delivered between December 2020 and May 2021. Trial progression criteria for recruitment, intervention fidelity and routine data collection were met. Staff-level fidelity, retention and ability to collect individual level data were reviewed and processes amended for the newly funded phase III trial. Interviews highlighted positive participant views on all aspects of the ThinkCancer! intervention, all practices set out to liberalise referral thresholds appropriately, implement guidelines, and create detailed safety netting action plans.

Conclusions

ThinkCancer! was found to be feasible and acceptable, and the results and lessons learned from the feasibility study have informed the final iteration of the ThinkCancer! workshop and the design and delivery of a definitive phase III trial to assess the effectiveness and cost effectiveness of this novel behaviour change intervention. Strategies have been designed to improve retention, staff-level fidelity and individual data collection, and delivery at scale to multiple practices will likely improve fidelity and reach and may allow for cross pollination of best practice between practice teams.

293 A predictive model for colorectal cancer for symptomatic patients in primary care; extending the role of the faecal immunochemical test

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Objectives

There are around 42,000 new colorectal cancer cases annually in the UK; around 1 in 3 are diagnosed at an early stage, and five-year survival is 58.4%. Most patients with colorectal cancer see their GP with symptoms in the year before they are diagnosed, but as one in 10 primary care consultations are for a bowel complaint, identifying patients who would benefit from referral is challenging. This study developed a risk-based algorithm for colorectal cancer based on faecal haemoglobin and other symptoms, test results, and patient factors, with the aim of improving the triage of patients with bowel symptoms in primary care.

Method

A cohort study of symptomatic patients with a faecal immunochemical test (FIT) from primary care, from October to December 2019. Data extracted from electronic health record included FIT result, age, sex, partial postcode, symptoms, blood test results, and colorectal cancers (CRCs) diagnosed within 18 months of FIT date. Logistic regression models were created using 10-fold cross validation and with feature inclusion assessed through forward selection and Akaike's information criterion (AIC) comparison and model comparison through pseudo R^2. The final model will be externally validated in a dataset of symptomatic patients in Spain.

Results

There were 3325 eligible patients with a primary care FIT. Median age was 64 years. 55.3% were female. Included patients fulfilled both high-risk and low-risk NICE NG12 symptom criteria. The best performing model included faecal haemoglobin, iron deficiency anaemia, and age, and had an AUC of 0.9527 (CI 0.94-0.96%). Sensitivity was 94.7% (CI 94-95%), and specificity was 87.5% (CI 86-89%). Results are to been externally validated on a separate data set to adjust for over fitting. This data set contains 1572 patients, 51.5% female.

Conclusions

This study is part of the COLOFIT programme, and complementary work is underway at the University of Nottingham with external validation at the Oxford University. These results suggest that the triage of patients with symptoms of possible colorectal cancer in primary care could be improved with the addition of other readily available data items. Further study is needed to determine the best way to integrate these findings into primary care. The results are based on data collected before the COVID-19

pandemic; as patient and clinician behaviour and clinical guidance has changed since 2019, further study on more recent datasets would be required to estimate the performance of any algorithm in the present day.

294 Exploring perceptions and experiences of NHS breast screening for socio-economically disadvantaged women in Yorkshire

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Objectives

The NHS breast screening programme detects breast cancer in the earlier stages and improves the chances of survival. Women living in socio-economically disadvantaged areas are less likely to attend breast screening than women from more affluent areas. Uptake remains low despite a wealth of knowledge about the barriers to breast screening. There are calls to reduce inequalities in breast screening uptake. The objective of this study was to examine the lived experiences of women living in socio-economically disadvantaged areas of Yorkshire in order to identify barriers and facilitators to breast screening uptake.

Method

The research adopted an exploratory multi-method qualitative research design comprising semi-structured interviews and focus groups. To ensure that women who are disengaged from health services were not excluded, recruitment occurred through community and third-sector organisations across Yorkshire. Twelve interviews and five focus groups were conducted with 35 women aged 50-70 from South Yorkshire (n=16), West Yorkshire (n=15) and Hull (n=4). Twenty-six women had attended breast screening, and nine had not. There were fifteen women of South Asian heritage, eleven White British, seven Roma, one Black African and one of mixed heritage. Thematic analysis of the data was conducted in NVivo.

Results

Preliminary findings indicate that social support is a facilitator to accessing breast screening. Barriers such as caring responsibilities, transportation, literacy and language are significantly reduced when there is a strong social support network. Additionally, access to screening is inhibited by women's perceived level of safety when out of the home due to high crime rates. Despite experiencing prejudice in everyday life and deplorable living conditions, Roma women do not have negative views of NHS healthcare professionals or medical procedures. However, there is mistrust in organised translation services, and they would instead prefer to utilise their social network for interpretation.

Conclusions

The findings of this study make an important contribution to formulating new interventions that may improve breast screening attendance. Exploring the direct experiences of women living in socio-economically disadvantaged areas helps us to better understand the complexities around accessing breast screening. On a positive note, the majority of the participants already access breast screening.

There may be opportunities to work with them to find ways of encouraging others from similar backgrounds to attend breast screening.

295 A screening ratio for the performance of GP participation in a national bowel cancer screening programme accounting for sociodemographic differences

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Objectives

Bowel cancer screening aims to detect pre-cancerous cells and cancer at an early stage, which can increase the chances of successful treatment. However, only 70.3% of people have been screened in England within the last 2.5 years at the end of 2021/22. Although the coverage is increasing every year (especially since the introduction of FIT), there is regional variation in coverage between GP surgeries, partly driven by sociodemographic differences. The aim of this study was to develop a statistical approach that enables health care professionals to better understand variation between GP practices, by calculating whether they have higher, similar or lower coverage than other practices with comparable sociodemographic populations.

Method

A multivariate generalized linear mixed-effects Poisson regression model was performed with the number of screened people as an outcome. The index of multiple deprivation score, proportion of males aged 60-74, proportion of practice population aged 60-74, practice population list size, rural-urban classification of the GP practice, and percentage of usual residents who are of White British ethnicity as fixed-effect predictors, with CCG code used as random effect predictor. The number of eligible people was used as an offset in the model. The expected number of screened patients was predicted for each GP practice and a semi-parametric bootstrap approach was used for the fitted mixed model to compute a 95% confidence interval for the expected number of screened people. A 95% lower and upper CI was computed by dividing the number of screened people by the upper and lower 95% CI of the expected number of screened people.

Results

Of 6,503 GP practices included in the statistical analysis, 521 (8%) and 836 (13%) GP practices performed significantly better or worse than expected, respectively.

Conclusions

This study, which builds on and updates previous statistical method, has the potential to help identify underperforming practices, with the aim to improve screening programmes across England. Although this work was demonstrated on bowel screening coverage data, it can be applied to other NHS screening programmes as well as uptake data. The next steps are to develop an online tool accessible by GPs across England.

296 Comparison between the 2014 and 2018 National Cancer Diagnosis Audits for England

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Objectives

Timely diagnosis of cancer in patients who present with symptoms in primary care is a quality improvement priority. We aimed to examine changes to the diagnostic process and its timeliness before and after publication of the 2015 NICE Guideline for the referral of suspected cancer in primary care. The National Cancer Diagnosis Audit (NCDA), a population-based clinical audit of cancer diagnosis in general practices in England for patients diagnosed in 2014 or 2018, was set up to characterise the quality of the diagnostic process. Our hypothesis was that implementation of NICE guidance should be associated with an observable change in the audited process measures.

Method

All incident malignant cancer cases among England residents in 2014 and 2018 were assigned to the general practice where they were registered at the time of their cancer diagnosis. Participating practices entered data from the primary care patient record on: the patient's characteristics; place of presentation and symptoms presented; primary care-led investigations; the number of consultations; the referral pathway; whether there was evidence of safety netting; and any perceived avoidable diagnostic delays. Audits collected data in 2016/2017 (2014 diagnoses) and 2019/2020 (2018 diagnoses). Data on aspects of the diagnostic process were compared between the 2014 and 2018 audits.

Results

The NCDA collected information on 17,042 (2014) and 64,489 (2018) cancer patients from 439 (2014) and 1,878 (2018) practices. Compared to 2014, the percentage of patients with same-day referral was higher in 2018 (38% in 2014 vs. 43%) with a reduction in the median diagnostic interval (40 days vs. 36 days). Fewer patients had 3+ consultations before referral (26% vs. 19%). Use of primary care-led investigations increased (48% vs. 51%). Urgent cancer referrals increased (58% vs. 63%) while emergency referrals decreased (18% vs. 15%). Recorded use of safety netting was lower (47% vs. 43%). All differences were significant ($p<0.001$).

Conclusions

In a 5-year period spanning the year when national guidelines were updated, there were improvements in the diagnostic process of patients who present to general practice in England with symptoms of a subsequently diagnosed cancer. For patients diagnosed with cancer in 2018 compared with 2014, there were notable reductions in the length of diagnostic intervals and the proportion of patients experiencing

multiple pre-referral consultations. Patients diagnosed in 2018 were significantly more likely to have been referred urgently and less likely to have had an emergency referral compared with 2014.

297 Overview of primary care focused cancer research on the island of Ireland – a bibliometric analysis and two-country comparison

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Objectives

Primary care plays a significant role across the continuum of cancer care. General practitioners (GPs) are the initial point of contact for most patients presenting symptomatically with cancer, playing a lead role in prevention, screening, early detection, survivorship and end-of-life care. Understanding the breadth and quality of primary care-focused cancer research publications in Ireland may help in identifying underexplored areas and better targeting of future funding and research efforts. This study aimed to describe the quantity, quality and type of primary care-focused cancer research conducted in the Republic of Ireland (RoI) and Northern Ireland (NI).

Method

A systematic review was carried out using MEDLINE, Embase, CINAHL, Cochrane Library, Web of Science, ProQuest Dissertation and Thesis Database, ClinicalTrials.gov, and the WHO International Clinical Trials Registry Platform. The search strategy was designed to include all primary research corresponding to the following themes: general practice, cancer, and Ireland. The title and abstract of all identified papers were screened; conflicts and uncertainties were resolved by discussion and consultation of the full text. Included papers were categorised by: (1) year, (2) country, (3) publication type, (4) study design, (5) cancer type, and (6) cancer continuum stage. The results were synthesised narratively.

Results

From 3,911 screened abstracts, we identified 62 journal articles, 37 conference abstracts, and two dissertation theses meeting the inclusion criteria. 92% of papers were published after the year 2000. The number of studies from NI and the RoI was proportional to the population of each nation; a single cross-border study was identified. 27% of conference abstracts and 69% of journal articles described comparative research. Study designs were classified as experimental (3%), comparative observational (56%), non-comparative observational (24%), and qualitative (21%). The top five cancers, ranked by the number of studies identified, were cervical, breast, prostate, lung and colorectal.

Conclusions

This review provides a summary of published primary care-focused cancer research in Ireland, highlighting underserved areas for future work. We also discuss characteristics of research associated with publication type (journal article versus conference abstract) and impact factor. A comparison between studies from NI and the RoI suggest differences which correspond to differences in population

health priorities and research landscapes. The findings will be presented to fundholders and to a primary-care cancer research stakeholder group to boost impact and dissemination.

Other category

Primary care cancer research

299 Assessing the narratives on lung health using focus group discussions pre- and during- the PEOPLE-Hull lung health public media campaign

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Objectives

Public media campaigns have been conducted in England to increase symptom awareness of- and encourage help-seeking for serious conditions such as lung cancer. They have also been used to challenge negative narratives about these conditions. Surveys have been used mostly to evaluate the media campaigns. The PEOPLE-Hull lung health public media campaign was conducted between April 2019-March 2020 to challenge negative narratives, increase awareness of- and help-seeking for lung symptoms. We sought to evaluate the PEOPLE-Hull lung health public media campaign using surveys (discussed elsewhere) and focus group discussions. We present the community focus group discussion findings pre-and during-media campaign.

Method

We recruited established Hull community groups to participate in three longitudinal focus group discussions (FGDs) each, pre-, during- and post-campaign period, to identify and describe everyday views and narratives of lung cancer. Groups were facilitated to encourage discussion on beliefs about lung cancer. Discussants were allowed to shape the meetings. Any changes in the narratives and the reasons for the changes were explored during the subsequent discussions. We used a thematic approach to analysis. We analysed the first discussion before conducting the second focus group discussion. All discussions were audio-recorded and transcribed. Data management was facilitated by NVivo.

Results

We recruited 12 community groups (n=73 discussants) pre-campaign and 10 groups (n=81 discussants) during-campaign period from North and East Hull. Most discussants were not exposed naturally to the campaign materials and reported that they ignored most health messages. There were inequalities across the groups. Discussants from the more deprived areas learnt from the discussions unlike those from the less deprived areas. The former changed their behaviour, for example, smoking behaviour or immediately consulted for a longstanding lung symptom after the first discussion. There was lower health literacy among the more deprived than less deprived, which also influenced help-seeking.

Conclusions

While most discussants were not naturally exposed to the campaign, the reported changes in help-seeking behaviour and awareness of lung symptoms after the first discussion were important. The focus

group discussion may be viewed as a platform to discuss lung health leading to behaviour change among more deprived communities. Furthermore, the importance of the sustainable engagement of the focus group discussants from already established community groups in assessing the changing narratives around lung cancer is highlighted.

300 Lung cancer awareness in Hull pre-, during- and post-lung health public media campaign: The PEOPLE-Hull Study.

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Objectives

In England, Hull has among the highest lung cancer mortality and smoking prevalence. Smokers have negative narratives around lung cancer diagnosis and treatment therefore are less likely than never-smokers to consult for cough. PEOPLE-Hull study aims to combine primary care and community engagement interventions to improve early lung cancer diagnosis. Lung symptoms awareness campaigns were used to challenge negative narratives, increase awareness of- and help-seeking for-lung symptoms. The adapted lung Cancer Awareness Measure (Lung-CAM) survey was distributed pre-, during- and post-campaign to assess lung cancer awareness in Hull. We also investigated awareness of cough and breathlessness (also coronavirus symptoms).

Method

We recruited Hull residents (40+years), stratified by gender, age and deprivation quintiles, from the community and the open electoral roll. The sample size was 600 people (follow-up sample at least 388). The Lung-CAM questionnaire was completed (face-to-face/email/post/telephone) pre- (2019), during- (11/2019-02/2020) and post-campaign (01-04/2021). The questionnaire comprised open (recall) and closed (recognition) questions on warning signs. We calculated symptoms recall and recognition by adding the number of symptoms recalled and the number of 'yes' responses to the cancer symptoms questions (range 1-14). Recall and recognition of each symptom was compared and symptom recall and recognition scores between sociodemographic characteristics explored.

Results

There were 607 respondents pre-, 506 during- and 391 post-campaign. The mean baseline age was 60 (±12)years. At baseline, smokers had lower symptoms recall than non-and ex-smokers (p=0.002). Data analysis before and following the campaign showed an increase in recall higher in less educated (p=0.002); those living in more deprived areas (p=0.031); increase in recognition was about equal except gender (higher increase among women than men, p=0.015) and marital status (highest increase among the widowed, p=0.006). There was an increase in cough recall (p<0.001) post-campaign (during the pandemic) and a decrease in breathlessness recall (p<0.001) as potential lung cancer symptoms.

Conclusions

Our findings suggest that there is a need to increase targeted lung cancer symptoms awareness among men, smokers, those in the lower socioeconomic status, if the Hull lung cancer outcomes are to be improved. Additionally, awareness of cough as a lung cancer symptom increased despite the pandemic however the breathlessness recall decreased, suggesting a need to continue promoting lung cancer symptoms awareness campaigns promoting multiple lung cancer symptoms.

303 Significant predictive contribution of genetic propensity in integrated dynamic early detection models for colorectal cancer, encompassing core demographics, genetics, symptoms, biomarkers, medical history, and lifestyle: A UK Biobank prospective cohort study

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Objectives

Colorectal cancer (CRC) is the third most common cancer globally with increasing early-onset. Assessment of underlying cancer risk utilising available electronic health records (EHR) could improve prognosis and resource allocation. However, current models do not fully utilise longitudinal information in EHRs, and the predictive contributions of diverse risk predictor types, such as genetics and symptoms, have not been rigorously assessed. Our main objectives were to: (1) derive and validate dynamic diagnostic models for CRC using the UK Biobank (UKB) cohort linked to primary care (PC) and genetic data; (2) quantify the predictive ability of each predictor type.

Method

Dynamic CRC diagnostic models were derived and validated using super-landmark Cox Proportional Hazards (Cox PH) regression with 10-fold cross-validation. We used individual-level data from UKB baseline assessments and PC data from 156,989 individuals. The outcome was 2-year incident CRC risk (N=1,293). Predictor types included genetics, core demographics, biomarkers, medical history, symptoms and lifestyle. We quantified the discriminative ability of each predictor type, accounting for inclusion ordering, using game-theoretic Shapley values of the C-index. The Shapley values attribute C-index gains, above 0.5 (random), to each predictor type, summing to the full model gains.

Results

The CRC diagnostic model showed good discriminative performance, with a C-index of 0.79 (95%CI 0.77-0.82). The C-index contributions, estimated as Shapley values, for each predictor type, were 0.12 for genetic risk scores; 0.07 for core demographics including age, sex and birth-year; 0.05 for biomarkers including iron deficiency and inflammation; 0.03 for medical history including colonoscopy in the last 10 years and regular use of NSAIDs; 0.02 for lifestyle including alcohol consumption; and 0.01 for symptoms including rectal mass, rectal bleeding, abdominal pain in the last 2 years and new-onset haemorrhoids.

Conclusions

We demonstrated that dynamic risk modelling using EHRs can support clinical practice. Our Integration of information on genetic propensity, core demographics, biomarkers, medical history, symptoms and

lifestyle, maximises predictive power at the primary care level. We also demonstrated the significant and foremost predictive value of genetic data, when accounting for the order of inclusion of predictor types. Genetic risk scores are nearer to clinical adoption (e.g. NHS Genomic Medicine Service). This coupled with its lifetime invariance and independence from healthcare-seeking behaviour, warrants further exploration of its utility in early CRC detection.

304 Cancer risk after a negative initial urgent suspected cancer referral – a national cohort study

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Objectives

Over 2 million patients are referred each year on urgent two-week wait (TWW) pathways to rule-out cancer in England. The vast majority of those referred (over 90%) do not have cancer initially diagnosed. We do not know the subsequent cancer risk following negative initial referral. This is an under researched area and of clear importance given millions going through pathways. TWW may be a 'teachable moment' when people are responsive and receptive to health information.

Method

Cancer registration data was extracted for all TWW referrals in England 2013/14 with five-year follow up. Eight main TWW referral groups were included. Those who had no cancer diagnosis within 12 months of TWW referral were included. Number of cancers for years 1-5 (Y1-5) was calculated, and subgroups for main TWW pathways. Expected cancer incidence for each group based on age/sex distribution was modelled. Y1-5 standardised incidence ratio (SIR) was calculated for each group following negative TWW. Analysis was for risk of all cancers and then for the same cancer type as initial referral.

Results

There were 1.32 million TWW referrals across eight main cancer pathways in 2013/14 of which 1.13 million were found not to have cancer within 1 year. Of these, 63,112 (5.4%) were diagnosed with cancer Y1-5 years post referral. Expected cancer risk in Y1-5 was 4.2%, SIR 1.27, i.e. 27% higher cancer risk. Highest risk was in Y1-2 (SIR 1.33), with similar pattern for main referral types. The lowest absolute risk for any cancer Y1-5 followed negative breast TWW(3%), the highest was for urological and lung TWW, (8.4% and 7.3% respectively). For same cancer diagnoses as initial TWW pathway, the lowest Y1-5 absolute risk was lower GI (0.7%, SIR 0.94). Urological and lung pathways had the highest absolute risk and SIR for the same cancer diagnoses as the initial pathway (4% and 2.6%, SIR 2.37 and 3.0 respectively).

Conclusions

Five-year cancer risk and SIR has been calculated for the first time following negative initial TWW to compare future cancer risk across TWW pathways. Risk of any cancer was 27% higher than expected, particularly highest in the first few years, informing potential cancer reduction messaging and safety netting. Y1-5 risk was highest for those with negative initial urological and lung TWW assessments, with cancer incidence two to three times higher than might be expected. This suggests the potential

requirement for more active monitoring and follow up for these groups. Following a negative lower GI TWW patients can be reassured that their Y1-5 risk of developing lower GI cancer appears lower than expected.

Other category

Prevention of future cancer

307 Development of the HT&Me intervention to support women with breast cancer to adhere to adjuvant endocrine therapy and improve quality of life

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Objectives

Approximately 80% of breast cancers are oestrogen receptor positive (ER+). Patients treated surgically are usually recommended adjuvant endocrine therapy (AET) for 5-10 years. AET significantly reduces recurrence, but up to 50% of women do not take it as prescribed. We have developed an intervention to support AET adherence and improve quality-of-life (QoL) in women with breast cancer.

Method

Design and development of the HT&Me intervention was guided by the Medical Research Council framework for complex interventions, based on evidence, underpinned by theory and taking a person-based approach. Literature reviews, behavioural analysis, and extensive key stakeholder involvement informed 'guiding principles' and the intervention logic model. Using co-design principles, a prototype intervention was developed, and refined.

Results

The blended HT&Me intervention supports women to self-manage their AET. It comprises initial and follow-up consultations with a trained nurse, supported with an animation video, a web-app and ongoing motivational 'nudge' messages. It addresses perceptual (e.g. doubts about necessity, treatment concerns) and practical (e.g. forgetting) barriers to adherence and provides information, support and behaviour change techniques to improve QoL. Iterative patient feedback maximised feasibility, acceptability, and likelihood of maintaining adherence; health professional feedback maximised likelihood of scalability.

Conclusions

HT&Me has been systematically and rigorously developed to promote AET adherence and improve QoL, and is complemented with a logic model documenting hypothesized mechanisms of action. An ongoing feasibility trial will inform a future randomised control trial of effectiveness and cost-effectiveness.

308 Patient experience and acceptability of using the faecal immunochemical test when presenting with symptoms in primary care: a qualitative interview study

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Objectives

The faecal immunochemical test (FIT) is currently used in UK primary care to triage patients presenting with symptoms that may indicate colorectal cancer (CRC). Recent evidence shows FIT is a good test for both ruling in and ruling out CRC. However, evidence is still limited regarding FIT experience and acceptability, particularly among symptomatic patients. Therefore, we aimed to explore symptomatic patients' experience of care and acceptability of using FIT in primary care.

Method

We carried out a qualitative semi-structured interview study with patients from the East of England. We recruited patients who presented in primary care with possible symptoms of CRC, and for whom a FIT was requested, as part of a larger, multi-method study investigating the use of FIT in primary care. Interviews were conducted via Zoom between April and October 2020. Data were analysed using framework analysis, informed by the Model of Pathways to Treatment, the Theoretical Framework of Acceptability and recent evidence on the need to evaluate both patient acceptability and care experience.

Results

44 participants were interviewed (mean age 61 years, 25 male). Familiarity with similar tests and perceived risk of cancer influenced participants' experience and acceptability. All were happy to do FIT and to recommend it to others. Most reported that FIT was straightforward, although some believed it could be challenging to others. However, test explanation by healthcare professionals was often poor. Furthermore, while some participants received their results quickly, many did not receive them at all with the common assumption that "no news is good news". For those with a negative result and persisting symptoms, there was uncertainty about any next steps.

Conclusions

While FIT is acceptable to patients, the quality of the reported care leaves much to be desired. We suggest possible ways to improve the FIT experience, communication about the test and its results. These include implementing specific time slots for communicating results to patients and capitalising on

the growth in use of patient messaging platforms. We also recommend further research on whether (and how) patients' presenting symptoms (high vs low risk) may influence their perception of FIT.

309 Evidence for access: systematic scoping review of access systems in general practice.

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Objectives

Primary care systems factors, including less continuity of care and pressure to see the most patients in the least amount of time can lead to delays in diagnosing cancer so timely and appropriate access to general practice for patients is preferable in reducing likelihood of such delays. The pandemic caused disruption of established access approaches within practices and concerns about delayed access for patients, which may have led to delayed cancer referrals. Various systems to support the management of demand and ensure timely access for patients in general practice have been developed and applied and we sought to examine these.

Method

We sought to consolidate and describe the evidence for GP access systems. We conducted a systematic scoping review. Literature searches were run across relevant databases in May 2022. Title, abstract and full text screening was carried out for each reference independently by two researchers. Data from included studies were extracted, collated, and mapped to synthesise and represent the types of GP access systems that have been the subject of research.

Results

49 studies were included in the review. The most commonly featured systems included 'advanced access', telephone triage and online triage systems. There were two key strategies to access that tended to be evaluated which related to either reorganising appointment capacity (e.g. using a duty doctor, allocating only same day appointments) or modifying patient pathways (e.g. triage or an appointment with someone other than a GP). The rationale for the access systems was to support a reduction in workload and provide care for the most patients possible in a timely fashion. Patient perspectives were not always collected in the research studies.

Conclusions

This scoping review provides a comprehensive synthesis of the various GP access systems that have been evaluated. This information can help in understanding which approaches currently used might best support, or not, the provision of timely access for patients who may require a cancer diagnosis. Research studies looking at access systems did not always consider patient perspectives and as understanding patient behaviour in relation to health seeking behaviours is important this is a limitation of the evidence base to date.

Posters

191 What factors affect cancer care delivery in primary care? A qualitative study

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Objectives

The number of people who are living with and beyond cancer is increasing in the United Kingdom and worldwide. One duty of primary care is to support people who are living with and beyond cancer. Barriers to delivering cancer care noted by patients and primary care staff include inadequate clinical expertise and resources, as well as lack of primary and secondary care coordination. This study aimed to identify the affecting provision of cancer care within British primary care after the start of the coronavirus pandemic, at a time of healthcare service demand and a depleted healthcare service workforce.

Method

An exploratory qualitative descriptive approach was used to collect data via remote semi-structured interviews with primary care staff after gaining informed consent. Interview transcripts were analysed using reflexive thematic analysis. Ethical approval was granted by the Health Research Authority (HRA) - IRAS number: 313015.

Results

Fifteen members of staff were interviewed (11 general practitioners (GPs), 3 practice nurses, and 1 physician associate). Factors affecting cancer care delivery in primary care could be classified into: (a) system-level factors, (b) general practice-level factors, (c) clinician-specific factors, (d) patient-specific factors. System-level barriers to cancer care included lack of primary care and secondary care resourcing, and political inaction. General practice-level facilitators to cancer care included dedicated mentorship, care coordinators and cancer registers. Clinician-specific facilitators included communication skills, personal experience with cancer and cultural humility. Patient-specific factors affecting cancer care included ability to accept healthcare and understanding of cancer.

Conclusions

The ability of primary care to deliver cancer care is affected by factors at the levels of the patient, clinical, general practice, and wider system level. This provides multiple areas for intervention for local, regional and national level policymakers in healthcare education and workforce planning. Future studies should identify how local and national policy is implemented to better understand how to improve workforce resourcing and cancer care education.

193 Change of participation in colorectal cancer screening under the COVID-19 pandemic in Japan

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Objectives

The COVID-19 pandemic infection first emerged in 2019 and has subsequently spread worldwide. In Japan, the COVID-19 disease has been disseminated since early 2020. Participation in cancer screening has been affected and has decreased due to the dissemination of the COVID-19 infection nationwide. In Japan, colorectal cancer (CRC) screening has been provided as a national program, which does not have a defined upper age limit. Although all programs have been supplied through mass surveys and GP practices, how cancer screening was provided during the pandemic. Characteristics of participation during the pandemic were compared considering the essential background.

Method

Cancer screenings are provided based on the fiscal year from April to March annually in Japan. The pandemic was disseminated in early 2020, which included the participants in the fiscal year of 2019. 2020 was the first confusing year affected by the pandemic. Based on the national cancer screening survey, the decrease rates of participants in 2020 were calculated, referred to those in 2018, and compared by a chi-square test. Age, sex, and screening supply were considered primary factors for participation patterns, and data could be obtained from a national survey.

Results

The total number of participants in colorectal cancer screening was 5,115,993 and 4,404,775 in 2018 and 2020, respectively. Total participation in CRC screening decreased by 13.9% in 2020 compared with 2018. The decrease rate was lower in men than in women (13.2% vs. 13.9%, $P<0.01$). However, the decrease rates differed among age groups; 19.1%, 14.2%, 24.0%, and 6.6% in those aged 40-49 years, 50-59 years, 60-69 years, and over 70's, respectively. In providing CRC screening, rates reported by the mass survey decreased by a greater amount than those reported among GP practices (22.1% vs. 7.3%, $P<0.01$).

Conclusions

Although participation in CRC screening decreased during the pandemic, the impact was different among age groups and providing systems. The oldest group continued to participate in colorectal cancer screening during the pandemic. Those aged 60-69 years canceled their screening, even though they were the most suitable target for CRC screening. Local governments restricted supplying mass survey programs during the pandemic, and inhabitants lost opportunities for cancer screenings. Most GP practices could continue their regular activities, including cancer screening while avoiding COVID-19 infection. The results suggest a plan for supplying CRC screening in the post-pandemic era.

208 Tracking Down Early Stage Cancer in Southern Denmark (TRADESCAN) – first results from a retrospective cohort study of the Non-specific Symptoms and Signs of Cancer-Cancer Patient Pathway (NSSC-CPP) in the area of Funen from 2014 to 2021

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Objectives

Denmark has for many years had lower cancer survival rates than comparable countries. To improve the survival, the cancer patient pathways (CPP) for organ-specific symptoms and the non-specific symptoms and signs of cancer (NSSC) were implemented in 2008-2009 and 2012, respectively. Nearly half of symptomatic patients who will go on to be diagnosed with cancer do not present with red-flag symptoms. The routes to diagnosis (RtD) for this group is uncertain. Our aim was to identify the RtD over time for patients referred to the NSSC-CPP including geographical referral pattern, pattern of GP contact, diagnostic workup, and comorbidities.

Method

We conducted a retrospective cohort study of all patients referred through the NSSC-CPP to the diagnostic center in Svendborg in the area of Funen from 2014 to 2021. We examined the referral pattern of the municipalities of Funen over time, and patients were followed for 6 months by review of the patient hospital records including registering of comorbidities, diagnostic workup, and final diagnosis.

Results

Analysis of data is currently ongoing. Findings will be presented at the conference.

Conclusions

Preliminary findings

The number of patients referred to the NSSC-CPP grew significantly from 2014 to 2021 with the majority being referred from primary care. It appears that local variation exists in the referral rates between the municipalities of Funen. The proportion of patients with cancers within 6 months, however, remained stable overall at around 15-20% apart from the first 2 years of the study.

210 The Cancer Patient Pathway for Non-specific Symptoms and Signs of Cancer in the Region of Southern Denmark – towards an optimized and uniform diagnostic approach

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Objectives

Background:

Cancer survival rates in Denmark have for many years been lower than other Scandinavian countries. This can in part be attributed to a delay in the diagnostic workup. To accelerate the time to diagnosis of cancers and hopefully improve survival, Denmark implemented urgent referral systems through the Cancer Patient Pathways (CPP) in 2008-2009. In 2012, the CPP for non-specific symptoms and signs of cancer was added (NSSC-CPP), which is currently managed by 21 diagnostic centers. However 10 years after implementation, the NSSC-CPP in Denmark is non-uniform both regionally and inter-regionally leading to patient inequality in diagnostic workup.

Method

To increase regional patient equality in the diagnostic workup and to improve the overall quality and timely diagnosis of cancer, the Region of Southern Denmark (RSD) has established the Diagnostic Forum. This is a working group meant to harmonize the diagnostic workup in RSD and improve the NSSC-CPP through evidence-based knowledge. To achieve this, the RSD has established local patient care coordinators in each of its four diagnostic centers. One of the first tasks for the coordinators is to establish a regional database to build the foundation for evidence-based improvements and streamlining of the NSSC-CPP.

Results

The Diagnostic Center in Svendborg is currently developing the infrastructure of the database based on a local database that was established in 2014. The regional database will contain patient characteristics at referral such as age, sex, height, weight, smoking status, alcohol consumption, comorbidities, and symptoms, but also referral source, types of diagnostic scans, and abnormal findings. A final diagnosis at the end of the initial investigational course and after 6 months will also be included. The database will be hosted by regional servers and based on the RedCAP interface for cross-region accessibility and secure data storage.

Conclusions

The RSD has taken new initiatives to develop a uniform approach to cancer diagnostics in the NSSC-CPP through the establishment of local patient care coordinators and a regional database. The database is currently in development and will be used for identification of regional differences in the diagnostic workup and to improve the future handling of the patients for a faster and more cost-effective diagnostic course.

223 Perspectives on cancer screening participation in a highly urbanised region: a Q-methodology study in The Hague, the Netherlands

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Objectives

The Netherlands hosts, as many other European countries, three population-based cancer screening programmes (CSPs). The overall uptake for these CSPs is high, but decreased over the past years. Especially in highly urbanised regions the uptake rates tend to fall below the minimal effective rate of 70%, set by the World Health Organization. Understanding reasons underlying the decision to partake in a CPS are essential in order to optimize screening participation rates. The aim of this study was to explore various perspectives on cancer screening among inhabitants of The Hague, a highly urbanised region of the Netherlands.

Method

A Q-methodology study was conducted to provide insight in the prevailing perspectives on partaking in CSPs. A total of 112 people were invited to participate, of which 49 completed the study. In an online application 31 statements were ranked into a 9-column forced ranking grid, followed by a short survey. Statements were based on current available literature and clustered by the Integrated Change model. Selected respondents were asked to participate in a subsequent interview to explain their ranking. By-person factor analysis was used to identify distinct perspectives, which were interpreted using data from the rankings and interviews.

Results

In total 39 rankings (80% of the respondents) were suitable for analysis. Respondents were mostly female and aged between 50 and 59 years of age. Three distinct perspectives were identified: 1). 'Positive about participation', 2). 'Thoughtful about participation', and 3). 'Fear drives participation'. Despite their perspectives, most respondents were in favour of participating in the CSPs.

Conclusions

Since CSPs will only be effective when participation rates are sufficiently high, it is essential to have insight into the different perspectives among potential respondents concerning partaking in a CSP. This study showed that beliefs and motivations towards CSPs are not only different between attenders and

non-attenders, but can also differ between subgroups of people holding different perspectives. In order to increase awareness and knowledge regarding the CSPs, we suggest tailoring communications to the perspectives of potential participants. For a part of the population this would also include greater involvement of health professionals working in primary care.

226 Breast cancer Long-term Outcome on Cardiac function: a longitudinal study design

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Objectives

In a previous cross-sectional study, we showed that breast cancer (BC) survivors (≥5 years after BC diagnosis) treated with chemo- and/or radiotherapy were at increased risk of mild systolic cardiac dysfunction compared to age and general practitioner (GP) matched controls. However, the course of cardiac function, and which clinical and lifestyle factors contribute to this, remains unclear. Therefore, we will perform a second measurement and we aim to answer the following research questions: What are the long-term (≥11 years) cardiac outcomes for women treated for BC compared to matched controls, and what is the course of cardiac function?

Method

We will perform a longitudinal matched cohort study consisting of two cohorts in primary care. We aim to include 455 participants of the original 700 participants from the previous cross-sectional study (350 BC survivors, 350 controls) and their data will be combined with the data from the first assessment. The primary outcome is left ventricular systolic cardiac dysfunction, defined as left ventricular ejection fraction (LVEF) <54%, measured by echocardiography. Secondary outcomes will be the change in LVEF, the prevalence of diastolic dysfunction, diagnosed cardiovascular diseases and medication as obtained from GP-files (based on ICPC- and ATC-codes).

Results

Inclusion started in October 2022. To date we included 35 participants out of 66 that we invited (53% response rate). From 74 participants from the previous study, 5 participants were deceased and 3 were excluded by the general practitioner due to severe mental or physical illness. The study is in progress and results will follow in 2024. Preliminary results about the inclusion will be presented at the conference.

Conclusions

BC is the most commonly diagnosed cancer among women in the Netherlands and as a consequence, every GP has around 25 BC survivors in his/her practice. After discharge from hospital-based follow-up, GPs are largely responsible for the long-term care of survivors of BC. Hence, it is important for GPs to know whether BC survivors are at increased risk of cardiac problems, and if they need to be monitored

on cardiac function. This study will explore the course of cardiac outcomes in women treated for BC and which clinical and lifestyle factors contribute to this process.

228 Treatment burden in survivors of prostate and colorectal cancer: a qualitative interview study

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Objectives

Modern cancer survivorship care places multiple demands on patients and their loved ones. Treatment burden is the workload of health care and the impact this has on the individual. Illness burden has been extensively explored in cancer, but relatively little is known about the burden of treatment. In cancer survivors, it is feasible that over-burdened patients could disengage from important survivorship activities such as self-monitoring, medication adherence, and lifestyle modification. The aim of this study was to investigate treatment burden in survivors of prostate and colorectal cancer and their caregivers.

Method

Semi-structured interviews were conducted in-person and by telephone with individuals who had been diagnosed with colorectal or prostate cancer without distant metastases within the previous five years and their caregivers. Participants were recruited through general practices in Northeast Scotland. Interviews were transcribed verbatim and analysed using Framework and thematic analysis.

Results

Thirty-five patients and 6 caregivers participated: 22 patients had prostate and 13 had colorectal cancers (6, male, 7 female). Participants expressed gratitude that time invested in treatment and follow-up could translate into improved life expectancy. Individual-, disease-, and health system-related factors protected against or increased treatment burden. Some factors, such as health service configuration were potentially modifiable. Multimorbidity contributed most to treatment burden and could influence treatment decisions and engagement with follow up. Cancer was usually considered as a discrete episode and was not perceived to require the lifelong self-monitoring and lifestyle changes that were necessary for other chronic conditions.

Conclusions

Treatment burden could lead to poorer cancer outcomes by influencing engagement with and decisions about care, particularly in individuals with multimorbidity. It is important to challenge the narrative that cancer is “curable” or “incurable” in order to promote a lifelong approach to improving health outcomes. Personalised approaches to cancer survivorship care must take account of interacting demands that are placed on patients and families, and to embed cancer survivorship activities alongside the holistic management of other long-term conditions.

229 Let's talk about work: Evaluation of an education programme for general practitioners in training on discussing work with patients with cancer.

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Objectives

Workers with cancer can experience different physical and psychosocial problems that can have a negative impact on their work participation. Workers who have cancer or were treated for cancer often report that they lack support of healthcare givers when it comes to returning to or maintaining work. In the education of general practitioners (GPs) in the Netherlands there is little attention for discussing work with these patients. Therefore, the aim of this study was to evaluate a newly developed education programme for GPs in training on discussing work with patients with cancer.

Method

Two groups of in total twenty-one GPs in training at the Amsterdam University Medical Centers participated in a one hour education programme on discussing work with patients with cancer. In the programme, participants were educated about the importance of discussing work with patients and about which physical and psychosocial problems patients with cancer could experience that may impact work. They also learned about advice they could give to support patients in returning to or maintaining work and about other professionals that could offer support. The participants completed a questionnaire with in total 35 questions to evaluate the programme.

Results

Seventeen of the twenty-one participants (81%) thought that the education programme was suitable to be implemented in the education curriculum for GPs. Ten participants (48%) indicated that they never discussed work with patients with cancer. After participating in the education programme, eighteen participants (85%) were planning to discuss work more often and fifteen participants (71%) were planning to advise patients more often about work. Almost all participants (95%) indicated that they were planning to advise patients with cancer more often about other professionals that could offer support.

Conclusions

The newly developed education programme improved the awareness of GPs in training of the importance of discussing work with patients with cancer. The majority of the participants indicated that they are planning to discuss work more often, to advise patients more about work or to advise about

other occupational health professionals more often. Five months after the general practitioners participated in the training program, we will evaluate if the participants really discussed work more often with patients with cancers than before.

Other category

work participation/return to work

239 Cancer recurrence: Early detection and diagnostic intervals in primary care

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Objectives

Cancer survivors are monitored in comprehensive, specialised follow-up programmes intended for early detection of cancer recurrence (CR). Nevertheless, CR is frequently detected between scheduled follow-up visits as 42-60% of cancer survivors encounter and present symptoms. Primary care is involved in most of these diagnostic pathways. However, little is known about the presentation in primary care. We aim to examine diagnostic intervals, actions taken by the GP and sub-optimal events for patients presenting symptoms or signs of CR in primary care.

Method

We will conduct a retrospective, national, cohort study based on questionnaire data linked to register data at the individual level. Patients diagnosed with CR of melanoma, lung, breast, colorectal, bladder, ovarian and endometrial cancer between Jan 2022 and May 2024 will be included. Patients are identified consecutively using validated, register-based algorithms. Based on the patient record, the affiliated GP will report GP involvement, date of first contact, actions taken, and sub-optimal events. Health registers will provide information on CR diagnosis date, comorbidity, education, income, sex and age.

Results

We will include 3,000 CR patients and expect to include information on 1,100 CR diagnostic pathways initiated in primary care. Data collection will begin January 2023.
Preliminary results will include length of the diagnostic interval for each cancer type, GP-reported sub-optimal events, and actions taken by the GP: i.e. urgent referral for suspected cancer, referral elsewhere, contact to responsible oncologist, diagnostic testing in primary care, and wait-and-see for continued symptoms or scheduled follow-up.

Conclusions

The project will be novel and provide comprehensive, nationwide evidence on the diagnostic pathway with diagnostic intervals for CR patients in primary care. We will document effective GP decision-making and identify and quantify delaying events. The findings will provide important new knowledge to inform the efforts for early detection of CR and survivorship care.

240 Treatment burden in individuals living with and beyond cancer: a systematic review of qualitative literature

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Objectives

Treatment burden is the workload of healthcare and its impact on functioning and wellbeing. Treatment burden has been associated with poorer health outcomes in individuals living with long-term conditions. Treatment burden is likely to be important in individuals with cancer but is under-researched. This systematic review aimed to investigate patient perceptions of treatment burden and its consequences in individuals living with and beyond cancer.

Method

A systematic review of qualitative research was conducted. Medline, EMBASE, and CINAHL databases were searched from the year 2000 onwards for qualitative studies that explored treatment burden in individuals with a diagnosis of breast, prostate, colorectal, or lung cancer at any stage and any point in their diagnostic/treatment trajectory. Treatment burden theoretical models informed the database search strategies. Titles, abstracts and full texts were independently dual screened. Verbatim participant quotations were extracted from the articles. Thematic synthesis was used to generate analytical themes. Data and quality assessment was conducted using a modified CASP checklist.

Results

Forty-eight articles were included in the review from 13 countries. Cancer management involved cognitive, practical, and relational work for patients. Individuals were motivated to perform this work to regain a sense of normality, improve life-expectancy, and manage symptoms. Individuals drew on personal and healthcare system resources. Treatment burden occurred when there was a mismatch between the resources required and their availability. Individuals with severe symptoms, those facing financial challenges, language barriers, or with limited social support were particularly at risk of treatment burden Consumption of time caused significant burden to those with advanced cancer.

Conclusions

Treatment burden in cancer can be conceptualised as a mismatch between the need for a specific resource required for health management and the availability or accessibility of that resource. Treatment burden is likely to be an important mediator of inequalities in cancer outcomes. The factors leading to or protecting against treatment burden can change over time and are potentially modifiable. Clinicians should consider patient time and workload when formulating management plans.

260 Data-driven tools implemented in primary care to support the diagnosis of pancreatic cancer: a systematic review

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Objectives

Pancreatic cancer is the 14th most common cancer worldwide, with over 495,000 cases annually. However, due to high mortality rates, it is the seventh leading cause of cancer deaths, responsible for 4.7 % (466,003 decedents). In Europe, it is projected to overtake breast cancer as the third leading cause of cancer death by 2025. Early diagnosis and surgical resection offer the best chances for long-term survival, but as the majority are diagnosed at advanced stages, 5-year survival in the United Kingdom is below 7 %.

Symptoms are non-specific, thus multiple data-driven tools based on statistical and machine learning models have been developed to facilitate early diagnosis. However, it is unclear whether many have been implemented. Therefore, in this worldwide systematic review we sought to identify tools implemented in primary care.

Method

A systematic review was conducted following PRISMA guidelines. We searched Web of Science, MEDLINE and EMBASE from January 2000 to November 2022. No geographical, language or study design restrictions were applied. Studies were included if they described the implementation or evaluation in primary care settings of a data-driven tool to support the early diagnosis of pancreatic cancer. Those reporting the development of such tools but not their use in a primary care setting, were excluded. Quality assessment of included studies was conducted using the STROBE guidelines with the RECORD extension.

Results

Of the 4,429 articles screened, six met the inclusion criteria, describing five tools that have been or will be implemented: QCancer; Risk Assessment Tool (RAT); the Macmillan electronic Clinical Decision Support tool (consisting of the aforementioned QCancer and RAT); Enriching New-Onset Diabetes for Pancreatic Cancer (ENDPAC); and the Queensland Institute of Medical Research (QIMR) PanKind Early Detection Initiative (EDI) tool. QCancer and the RAT have been implemented at scale in England, with QCancer tested in an Australian primary care setting. The ENDPAC model is being implemented in a randomised controlled trial in the United States (US), and the QIMR PanKind EDI tool is being deployed in an Australian study.

Conclusions

Tools to aid the early diagnosis of pancreatic cancer have been implemented in primary care, albeit in few countries (England, US, Australia), and at scale only in England. Studies highlighted several barriers to their implementation and use, including limited awareness of these tools, difficulty incorporating the tools into busy workflows and prompt fatigue. Facilitators included perceptions of streamlining assessment processes, supporting decision-making and ease of the tool's use. Facilitators and barriers to their acceptability, implementation and use should be considered prior to developing future tools and any updates to existing tools.

268 Risk Score for Advanced Colorectal Neoplasia in Symptomatic Individuals: a derivation and validation study

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Objectives

Colorectal cancer contributes to a substantial proportion of the cancer burden. We aim to devise and validate a risk score for advanced colorectal neoplasia in a large cohort.

Method

We recruited symptomatic patients aged ≥40 years and received colonoscopies during 1997-2017. A multivariable regression analysis of all variables that predict advanced colorectal neoplasia with statistical significance ($p < 0.05$) in the univariable analysis was performed. The algorithm's discriminatory ability was evaluated as the area under the curve of the mathematically constructed receiver operating characteristic curve.

Results

A total of 495,584 participants were included in the study. Age, male gender, inpatient setting, abnormal aspartate transaminase/alanine transaminase, white blood cell, plasma gamma-glutamyl transferase, high-density lipoprotein cholesterol, triglycerides, and Haemoglobin A1c were significantly associated with advanced colorectal neoplasia. A score of <2.65 was designated as low risk. Scores at 2.65 or above had a prevalence higher than the overall prevalence and hence were assigned as high risk. The prevalence of advanced colorectal neoplasia was 32% and 11%, respectively for high-risk and low-risk groups. The area under the curve for the risk score in the derivation and validation cohort was 70.12%.

Conclusions

This study has validated a simple, accurate and easy-to-use risk score which has a high discriminatory capability to predict advanced colorectal neoplasia in symptomatic patients.

272 Global distribution, risk factors, and recent trends for cervical cancer: A worldwide country-level analysis

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Objectives

This study aimed to evaluate the most updated worldwide distribution, risk factors, and temporal trends of cervical cancer for different countries and age groups.

Method

The Global Cancer Observatory database was retrieved for the age-standardized rates (ASRs, per 100,000 persons) for incidence and mortality of cervical cancer. The associations with risk factors were examined by multivariable regression analysis, adjusting for human development index (HDI) and gross domestic products (GDP) per capita. Joinpoint regression analysis was used to calculate the 10-year annual average percent change (AAPC) for incidence and mortality.

Results

A total of 568,847 new cases (ASR, 13.1) and 311,365 deaths (ASR, 6.9) of cervical cancer were reported globally in 2018. The highest incidence and mortality were observed in Southern Africa (ASRs, 43.1 and 20.0) and countries with low HDI (ASRs, 29.8 and 23.0). Countries with higher incidence and mortality had lower HDI ($\beta = -8.19$, 95% CI -11.32 to −5.06, $p < 0.001$; $\beta = -7.66$, CI -9.82 to −5.50; $p < 0.001$) but higher alcohol consumption ($\beta = 1.89$, 95% CI 0.59 to 3.19, $p = 0.005$; $\beta = 0.98$, CI 0.08 to 1.88; $p = 0.033$). An increasing trend of incidence was also observed in younger populations, with Cyprus (AAPC, 6.96), Sweden (AAPC, 4.88), and Norway (AAPC, 3.80) showing the most prominent.

Conclusions

The burden of cervical cancer was highest in regions with low and medium HDI and was associated with higher prevalence of alcohol consumption. There was an overall decreasing burden of cervical cancer; however, an increase in incidence and mortality was observed in some populations. More intensive preventive strategies are recommended for these populations.

289 The Role of Language in Delay of Cancer Screenings during the COVID-19 Pandemic among low-income uninsured populations with Limited English Proficiency

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Objectives

The objective of this study was to assess delays in cancer screening during the COVID-19 pandemic in an underserved urban population with high rates of limited English proficiency (LEP). Limited English proficiency is known to contribute to health disparities among Latinos and other immigrant populations. This represents a unique risk factor which does not affect all minority or vulnerable groups. This is of particular importance in New Jersey, where over 1 million residents have LEP and over 55% of them identify as Latinos.

Method

This study utilized data from a cross-sectional community survey developed to assess the impact of the COVID-19 pandemic on minority women living in Greater Newark. Prior to the pandemic, survey participants had received breast cancer screening from the Screening Access of Value for Essex (SAVE) program, which serves low-income uninsured women in Essex County New Jersey. The survey was conducted in English and Spanish during April-September 2021. Delays in cancer screening were assessed by asking respondents whether they delayed obtaining screening for breast or colorectal cancer during the preceding 12 months. Bivariate analyses explored relationships between screening and sociodemographic characteristics.

Results

A total of 210 respondents completed the survey, of which 48% were Spanish speaking individuals with LEP. Across all respondents, 21% reported delaying cancer screening. Within the sample, respondents that reported delaying routing care or specialist care were less likely to also delay routine cancer screenings ($p<0.000$). There were no significant differences in screening delays for respondents that delayed urgent care. Likewise, no significant differences were found across sociodemographic groups or in respect to limited English proficiency. Reasons given for delaying screening included concerns about contracting COVID-19 (41%), difficulty obtaining an appointment (28%), and concern about cost (20%).

Conclusions

This study did not reveal a disparity in cancer screening rates during the COVID-19 pandemic for individuals with LEP. The results indicate that individuals delayed cancer screening at lower rates than other types of medical care. Our findings suggest that SAVE's various language concordant outreach

efforts during the first and second wave of the COVID-19 may have been sufficient to allay pandemic related fears and ensure cancer screening during the COVID-19 pandemic.

302 Multimorbidity and cancer in sub-Saharan Africa: A Systematic Literature Review

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Objectives

Globally, the incidence of multi-morbidity, and of cancer, is increasing. In the sub-Saharan Africa (SSA) region, multimorbidity includes both non-communicable diseases (NCDs), including cancer, and communicable diseases such as HIV, Malaria, and TB, hence posing greater challenges to the already under-resourced healthcare systems. Little is known about the pattern and prevalence of multimorbidity, including cancer as a co-morbid condition, in the region. We carried out a systematic review to synthesise evidence on the prevalence and patterns of multimorbidity and assess how multimorbidity is measured in the literature from SSA.

Method

A comprehensive search was conducted on MEDLINE, EMBASE, CINAHL, Global Health, PsycINFO, Web of Science, African Index Medicus, African Journals Online, Google Scholar, ProQuest Dissertations and Theses, as well as organisational and international websites. Studies were included if they were reporting on the prevalence, patterns, and epidemiology of multimorbidity of adults aged ≥18 years, residing in SSA from 2000 to 2020. Retrieved studies were independently screened by two reviewers, and data were extracted using a predesigned form. Conflicts were resolved by consensus or by engaging a third reviewer. Due to the heterogeneity of included studies, results were summarised using narrative synthesis.

Results

From 13, 343 initial results, 37 studies were included in the narrative synthesis. The sample size of the studies ranged from 142 to 47,334 individuals. The prevalence of multimorbidity ranged from 1.4% to 69.4%, reflecting the wide variation in how multimorbidity was measured among the included studies. The number of conditions included in the assessment of multimorbidity ranged from 3 to 30; most studies included hypertension, diabetes, asthma, arthritis, and depression. Only six (6) studies included cancer as a health condition in multimorbidity reporting, from four countries. Of these, five studies reported cancer prevalence, ranging from 0.5% and 8.1%, and multimorbidity prevalence ranged from 4% to 65%. Of the six studies, only one specified the type of cancer assessed.

Conclusions

Despite considerable heterogeneity in how multimorbidity is estimated in included studies, the limited evidence suggests that multimorbidity is common in the SSA region. Considering the rising burden of cancer in SSA, the inadequate inclusion of cancer in multimorbidity estimates may result in the needs of

cancer patients being omitted in multimorbidity treatment guidelines. There is a need to establish a standard list of chronic conditions to include in multimorbidity studies, based on the most prevalent or important chronic conditions in the region. This will ensure the comparability of findings and provide a better understanding of the magnitude of multimorbidity for intervention and policy.

Other category

Conceptual and methodological issues

Workshops

214 Non-specific symptom pathways for cancer: how are they working and where are they going?

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Objectives

Non-specific symptom (NSS) pathways have been implemented in the UK since 2017 and previously in Denmark. These pathways aim to meet the needs of patients who present to primary care in high volume with non-site specific symptoms that could indicate a cancer. These patients have historically experienced delayed and fractured care due to a lack of red flag symptoms and behaviours associated with low risk of cancer. NSS pathways in the UK are currently in a phase of national implementation, however significant service variation persists, and an optimal model remains under-specified in policy. The objective of the workshop is to support the current roll out by presenting evidence relating to performance, identifying potential quality criteria and generating critical priorities for future research.

Method

To address this question, we will start our panel with an overview of the current state and direction of NSS pathways. This will be followed by contrasting talks on the design and performance of NSS pathways in different contexts, identifying key performance metrics such as conversion rates, cost-effectiveness evaluations, and accessibility. Finally, we will have talks indicating how NSS pathways may cater more effectively to patients who have been poorly served by traditional pathways.

Results

The workshop will showcase research drawing on:

- Routinely collected service performance data
- Observational data including interviews, observations and policy analysis
- Questionnaire data

The results will focus on many aspects of recent NSS pathway research including:

- Service design, workforce and impact on function
- Effectiveness of cancer detection and other serious conditions
- Social inequalities and access
- Health economics
- Primary care interface

The workshop will end with a facilitated audience discussion.

Conclusions

This model of care has shown significant promise in detecting cancers in patients with non-site specific symptoms, as well as benign disease. However, evidence to support implementation and quality improvement of these services is at an early stage. This group of presenters bring diverse research perspectives, clinical expertise and system leadership in NSS pathways. By holding this workshop, we will draw together knowledge from different geographical areas and methodological approaches, stimulate discussion about high quality care in NSS pathways, and consider what this means for research, national guidelines, and local practice.

217 The BETTER Program: An innovative evidence-based approach to support healthier behaviours that reduce the likelihood of cancers and other chronic diseases

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Objectives

The aim of this session is to introduce an evidence-based approach, The BETTER program – which effectively integrates cancer and other chronic disease prevention and screening activities – and discuss challenges experienced with translating evidence into practice.

1. Develop an understanding of an effective approach to cancer and chronic disease prevention and screening (CCDPS) and how it can be integrated into primary care.
2. Describe how the BETTER approach has been adapted to various settings and populations to meet community needs and engage patients in their health.
3. Discuss the challenges and facilitators to the implementation, scale, and spread of the program.

Method

The BETTER program comprehensively addresses CCDPS, while focusing on common causal lifestyle factors (smoking, diet, physical activity, and alcohol). The BETTER approach involves a new role, the "Prevention Practitioner" (PP), a health professional with expertise in CCDPS. Using the BETTER toolkit, the PP develops a tailored "Prevention Prescription" with each patient, helps them set their own S.M.A.R.T. goals , and links them to community resources as appropriate. BETTER provides a framework for an adaptable collaborative approach to CCDPS that has been shown to be effective through a randomized controlled trials and implemented in diverse settings.

Results

A new strategy is needed for CCDPS as patients often have complex care needs. The BETTER program builds on the results from the BETTER trial, which demonstrated that a tailored patient-level intervention improved uptake of CCDPS actions in urban primary care settings in Canada as compared to usual care (54% vs. 21%, $p<0.001$). Similar improvements have been observed in rural and remote communities (49% of CCDPS actions met). BETTER has also been successfully adapted to diverse Indigenous communities, and public health settings. An adaptation involving additional support with volunteer peer health coaches is currently being evaluated.

Conclusions

Clinical practice guidelines focus on one condition or organ system. Primary care providers need integrated pathways and resources that can be applied at the individual patient level. The BETTER

program provides a framework for an adaptable, collaborative, patient-centered approach to CCDPS which has been successfully adapted for diverse populations. Despite this, challenges to implementation, spread, and scale have been encountered. Discussion and sharing of lessons learned may help inform future directions for implementation research in primary care. This workshop will include a panel discussion and Q&A with participants regarding implementation challenges in primary care and potential ways of addressing them.

230 How to study the role of primary care in cancer care - interactive workshop about study designs, PROMs, process evaluations and more

Daan Brandenbarg[1], Mariken Stegmann[1], Kristel van Asselt[2], Larissa Nekhlyudov[3]

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Objectives

Traditionally, survival has been the primary outcome in most clinical trials performed among patients with cancer. Over the past decades, this primary focus from optimizing survival has shifted to optimizing care and patient-reported outcome measures (PROMs). Primary care practitioners (PCPs) play an important role in both optimizing care and PROMs. The assessment of PCPs' impact on cancer care requires a new and broader focus on these important outcome measures. It may even require an innovative approach to evaluate effectiveness, since classic randomized controlled trial designs may not be optimal in capturing potential improvements brought about by complex primary care interventions.

Method

In a 'modified Oxford-style debate' format, we will guide and challenge the attendees to discuss optimal designs and outcomes for studies aimed to study cancer survivorship and palliative care in the complex every day practice.

Results

Together, we aim to advance our understanding and methods to capture the potential added value of increasing primary care involvement in cancer care, in an interactive workshop. We plan to use the findings of the workshop to establish a set of best-practices for conducting and evaluating PCPs' impact on survivorship and palliative care.

Conclusions

Join us!

256 Building PCP-Survivorship Linkages: A Shared Care Model of Cancer Survivorship and Community-Based Primary Care in the United States

Christina Crabtree-Ide, Tessa Flores, Kathryn Glaser, Mary Reid

Roswell Park Comprehensive Cancer Center, Buffalo, USA

Objectives

Managing cancer patients' oncology-related primary care needs is a challenge due to complex health systems and multiple specialty providers involved in patient care. Survivorship care as a specialty has improved the long-term symptom management and care of cancer survivors although fostering communication and sharing health care delivery between specialty providers and primary care providers (PCPs) is a consistent issue presenting numerous challenges. Therefore, we aim to describe a successful workflow that specifies the components of a survivorship visit, roles and responsibilities of specialty survivorship providers, and integrates communication with community PCPs into the model of care.

Method

Our hospital is the only National Cancer Institute designated comprehensive cancer center in Western New York. The standalone Survivorship Program was built to address gaps in comprehensive survivorship care.

The clinical team and the Medical Director (TF) developed a workflow integrating clinical practice models from existing community PCP standard practice and adapting them for this specialty setting. Workflow and communication mechanisms were piloted for acceptability with both oncology and community PCPs, leading to the development and implementation of an enhanced model of care. The resulting workflow includes: pre-visit planning, clinical exam, counseling, and post-visit components.

Results

During pre-visit planning, team members call the patient for appointment reminders, demographic, and community provider information updates. Nurse coordinators review information from regional health exchanges to note and consolidate external health information.

Clinical visits include: review of community obtained labs, comprehensive physical, expected chronic problems, counseling regarding cancer recurrence and prevention, and late effects.

Post-visit follow-up is critical and includes individualized structured care plans and progress notes that give a roadmap for PCP follow-up and direct phone communication to the PCP and/or specialists for urgent follow-up. Surveillance studies and follow-ups are scheduled to avoid large time gaps between appointments.

Conclusions

The regular and direct communication between the Survivorship clinical team and the PCP team is a critical component of whole-person survivorship care, integrating both written follow-up for the patient and provider and phone calls for urgent or emergent issues. We will continue to adapt this model to meet the needs of local community settings, particularly as Survivorship care becomes progressively community-based and closer to patients' homes and lives.

258 Canadian Team to Improve Community-Based Cancer Care along the Continuum (CanIMPACT): Innovation for Cancer Care Research and Practice

Bojana Petrovic[1,2], Patti Groome[3], Mary Ann O'Brien[1], Julie Easley[4,5], Ruth Heisey[6,1], June Carroll[1,7], Jackie Bender[2,8], Robin Urquhart[9,10], Aisha Lofters[1,11], Eva Grunfeld[1,2,12]

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Objectives

1) Present a synthesis of the findings from the CanIMPACT research program; 2) Discuss lessons learned from mixed methods studies; 3) Explore future research directions with workshop participants.

Method

In Phase 1, we conducted research regarding care coordination between primary care providers (PCPs) and cancer specialists. During a Phase 2 consultative workshop, interested groups recommended testing an online system for PCPs and specialists (eConsult), with the aim of facilitating communication and care coordination. Phase 2 involved a hybrid effectiveness implementation trial of a cancer-specific modification of eConsult (eOncoNote), and testing eConsult for genetics service delivery in primary care. Additional studies examined virtual follow-up (VFP), adapting stratified follow-up care pathways, and exploring ways to improve care experiences of Black breast cancer survivors.

Results

Trial results showed that clinicians' access to eOncoNote may have been a factor in reducing patient anxiety. The eConsult genetics study demonstrated a reduced need for referral in 36% of eConsults. In the VFP study, survivors who were distressed and had low technology confidence were less likely to be satisfied with VFP. Survivors viewed stratified follow-up care pathways as a way to personalize their follow-up care, while clinicians were less receptive. In the study with Black cancer survivors, emerging themes included the importance of faith; advocacy; mental health, relationship, and financial challenges; COVID-19 impacts; mistrust of the healthcare system.

Conclusions

This workshop will include three parts: 1) overview of CanIMPACT data collection methods; 2) presentation from research group leads on key findings from quantitative, qualitative and mixed-methods studies; 3) panel discussion and Q&A with CanIMPACT researchers and workshop participants. The discussion will be a dialogue with workshop participants and will focus on answering the following questions: have the research results had an impact; what could researchers change to have a greater impact; what can be done differently in future projects?

266 Write a Public and Patient Involvement (PPI) plan for your next grant application in 90 minutes (ish): with input from CATCH Study Collaborators (CAncer risk assessment Tools for patients with Chronic Health conditions)

Lucy Kirkland, Sarah Bailey, Donna Crabtree, Celia Butler, Lynne Wright, David Shotter, Elizabeth Shephard

University of Exeter, Exeter, United Kingdom

Objectives

- Create a draft outline of a PPI plan and generate ideas for involving the public in your next grant application or for a hypothetical research idea.
- Get insight and input into your plan from our CATCH study public collaborators.
- Learn about how we are involving public collaborators in the CATCH study.
- Hear from our expert panel of public collaborators about things that make involvement in research easier for them – and you.

Method

This is an interactive workshop which aims to be informative and fun. You will be working in small groups to develop an ideal PPI plan for either a research idea you are currently working on or an imaginary idea you are looking to get funded. Our expert panel will help you hone your plan, which you will present as a group to the workshop for immediate feedback.

Results

The CATCH study at the University of Exeter is developing a series of risk assessment tools to support GPs in identifying possible cancer in patients with chronic health conditions. There are three public collaborators who are part of CATCH; Lynne, Donna, and Celia. They are currently developing ideas to disseminate our study results to the wider public by collaborating with the Exeter Science Centre. They have also carried out research for CATCH; our PPI approach will be shared in the workshop.

Conclusions

Getting public input into research ideas from the outset is crucial for many funders; this workshop offers a genuine opportunity to achieve that. The workshop will run from the framework of the Research Cycle from the NIHR Research Design Service, encouraging researchers to map PPI into each stage of the cycle and to acknowledge how this can be adapted for different research subjects. Listening to people with lived experiences can refine research priorities and identify increased collaboration and co-production opportunities.

267 Why do General Practitioners sometimes not think of, or act on, a possible cancer diagnosis? A Ca-PRI workshop.

Michael Harris

University of Exeter, Exeter, United Kingdom. University of Bern, Bern, Switzerland

Objectives

Target audience: primary care researchers and clinicians with an interest in identifying and acting on primary care delays in cancer diagnosis.

While General Practitioners (GPs) and other Primary Care Physicians (PCPs) play a key role in cancer detection, they can find cancer diagnosis challenging, and some patients have considerable delays between presentation and onward referral.

This workshop will:

- Explore delegates' views on why GPs can be slow to think of, or act on, a possible cancer diagnosis.
- Compare this with new evidence from Örenäs Research Group (ÖRG) research.
- Discuss how the issues can be addressed.

Method

Format: short presentations and facilitated group discussions.

Co-presenter/facilitator: Dr Senada Hajdarevic, Umeå University, Sweden.

1. Brief introduction: Introductions, workshop purpose and format. (5 minutes)

2. Presentation: Summary of existing research on the causes of primary care delays in timely diagnosis of cancer. (10 minutes)

3. Group-work: What are delegates' views on why GPs can be slow to think of, or act on, a possible cancer diagnosis? (20 minutes)

4. Presentation: Relevant evidence from recent Örenäs Research Group (ÖRG) research. (10 minutes)

5. Group-work: How could health care organisations use this knowledge to support the timely diagnosis of cancer in their jurisdictions? (20 minutes)

6. Plenary discussion: What is the potential for further collaborative work in this research field? (20 minutes)

7. Summary and conclusions. (5 minutes)

Results

We will mail participants with a summary of the workshop findings.

Conclusions

The workshop will build on existing evidence on the causes of primary care delays in timely diagnosis of cancer, explore ways in which these issues can be addressed, and generate ideas for future collaborative work.

310 Multi-cancer early detection (MCED) blood tests for symptomatic patients in primary care –

Interventional trial design Workshop

Sara Hiom

GRAIL Bio UK Ltd

Objectives

New (MCED) cancer diagnostic tests aim to improve patient health outcomes and experience of the diagnostic process, through earlier access to treatment, enhanced health service efficiency and fewer unnecessary investigations. Clinical trials can be used to establish the extent to which a new test affects patient outcomes or health system efficiency.

To design a clinical trial for this purpose we must try to estimate what is achievable by understanding the information that the new test offers. Will the new information change behaviour and decisions about referrals, investigations, or subsequent management? The objective of this workshop is to engage a range of primary care professionals and interested observers in discussion of this question to inform design of future clinical trials.

Method

After a brief introduction to MCEDs in primary care, we'll move into the interactive part of the workshop where example clinical scenarios will be provided to orientate the discussion. Worksheets will be handed out so that attendees can mark their answers. We'll then have a show of hands so we can see how and if opinion divides and collect the papers at the end to record all responses.

Results

The discussions of our various clinical scenarios will centre around choices made, with and without the MCED test available, from the perspective of the GP. It would also be very interesting to capture the views of any patient representatives present. These discussions could possibly be recorded – with consent - for future verification.

Conclusions

The conclusions of this session will inform and be fed into the design of a trial of MCEDs in symptomatic patients.

311 Cancer diagnosis in the old and frail, what is the evidence and where do we go from here?

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Objectives

A series of research over four years has resulted in several studies considering the effect of older age and frailty on cancer diagnosis in primary care. We have conducted systematic reviews, a cohort study, a qualitative interview study and an international review of guidelines. The studies have highlighted important areas such as shared decision making, the impact of frailty and cognitive impairment, the value of a 'confirmed' diagnosis and the importance of carers. We aim to summarise these studies and their findings, highlighting the complexity of cancer diagnosis in old and frail patients, and to discuss as a group the future steps to improve the pathway to cancer diagnosis in older adults.

Method

This talk will aim to set the scene of work done so far then introduce a possible intervention to improve the pathway to cancer diagnosis in older and frail adults. The workshop will include a talk on what we know so far and a group discussion on future aims for research in this area and a 'brainstorm' on what a cancer pathway specifically for frail older adults might look like.

Results

We know from prior work that time to cancer diagnosis is significantly longer in frail adults but we do not know the reasons or if acceptable. We know that older adults have slower appraisal intervals but seek help promptly. We know that the decision to investigate and refer older adults with cancer symptoms is complex and complicated by cognitive impairment, frailty and co-morbidities. Interviews with patients found they place a high value on the certainty of having a diagnosis even in the face of unpleasant and invasive investigations, mostly to allow for self management and to plan for the future.

Conclusions

The workshop will explore a new, novel pathway to cancer diagnosis for frail adults. We will support this through an introduction to what we know so far and a group discussion on how best to improve care for this growing and important patient group.

312 International primary care data landscape - what does good data look like?

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Objectives

There are significant issues with the capture of primary care (PC) data that is relevant to cancer (including, quality of coding, gaps in what is collected), alongside challenges accessing and linking it to other cancer and health services data, in the UK and internationally. This presents a significant barrier to fully understanding PC activity, and limits what can be done to support quality improvement for the management of suspected cancer. This session will explore the international PC data landscape with the aim of understanding differences in data collection, access and use, via a **workshop activity**. We want to build consensus on which data items are considered the most relevant for measuring quality care in PC for people with suspected cancer and identify examples from different countries on how this data is used to drive quality improvement.

Method

This workshop session will address a number of overarching key research questions:

- What does quality care look like for people with suspected cancer in PC?
- How should quality be measured in this context? What are the key indicators to collect in order to assess 'quality'?
- What barriers are there to collecting and accessing PC data?
- What can be learnt from the approaches taken in different countries that has improved consistency, quality and access to PC data?

This session will be sub-divided into three group activities, each with a specific discussion focus and underpinned by the domains of health care quality: 1) Defining quality in PC as it relates to the diagnosis cancer (and what are the key differences between countries)

2) Understanding how quality should be, and is assessed, and associated data requirements and 3) Barriers to accessing data and action required to address them.

Results

The findings from this workshop will be used to help build consensus around what the best metrics are in assessing quality in PC management of suspected cancer. Discussions will help elucidate current challenges and opportunities within the PC-cancer data landscape internationally, and provide a forum for sharing and learning.

Conclusions

Data collected on PC activity are key to unlocking our understanding of the beginning of the cancer patient pathway. This could offer significant untapped potential in driving forward quality improvements for earlier, and timelier, cancer diagnosis.