SAPC

UNIVERSITY OF EXETER

South West Society for Academic Primary Care Conference 2022:

Primary Care - Coming Together

Thursday 10th and Friday 11th March 2022

Programme | Keynotes | Abstracts

Welcome to SW SAPC 2022

When we came up with the theme for this year's conference, "Coming together" we were really hoping that the meeting would be one of the first events when all of us in the academic primary care community would get to meet together, in person, for the first time in a long time. However, with the twists and turns of the ongoing Covid pandemic we took the decision to move to an online platform early in the year. Whilst this might not be the meeting many of us had hoped for, it does still give an opportunity for us all to come together and share our work, catch up with colleagues old and new and learn about the fantastic research going on in the region. There are also some of us who will be quite relieved that the conference is online and it does give us the chance to meet with some people, for whom, a face to face meeting may have been challenging for one reason or another.

Over the past two years we have all become very accustomed to conducting our day to day working lives through a computer screen, but Teams and Zoom meetings are not great for the kind of networking that you hope to do at conferences. For that reason, we have chosen to use the Spatial Chat platform. I hope you have fun with the proximity chat feature in the lobby areas which is as close to recreating the conference spirit that we could feasibly achieve without all donning virtual reality headsets.

Of course, pulling together an event like this takes a lot of work by a lot of people, whether in person or online. A conference would not be a conference without speakers, so thank you to all of you who submitted and abstract and for presenting your work, and a special thank you to our three keynote speakers. Thanks also to all the session chairs, who I am sure will keep the meeting running smoothly. Finally, a big thank you to my fellow organising committee members who have all done their bit to make this event happen. In particular, I would like to give a huge personal thank you to Chloe Thomas for all her hard work, without whom this event would not have happened.

Just as we have changed our way of work through the pandemic, the work of general practice and primary care has changed too. The digitisation of primary care has accelerated through the pandemic and there are a number of talks at the conference reflecting those changes. And as we emerge from the pandemic things are unlikely just to go back to the way they were before. All of the work presented at this conference has a part to play in shaping primary care in the future.

Gary Abel

Chair of the conference organising committee

Organising Committee Members

Gary Abel (chair)

Emily Brown

Phil Evans

Willie Hamilton

Sinead McDonagh

Sam Merriel

Luke Mounce

Sarah Price

Chloe Thomas

Bethan Treadgold

Bianca Wiering

We are grateful to all those colleagues who acted as peer reviewers for the academic programme.

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Online Platform - Spatial Chat

This is the link to join (Google Chrome recommended): https://spatial.chat/s/SWSAPC2022?guest

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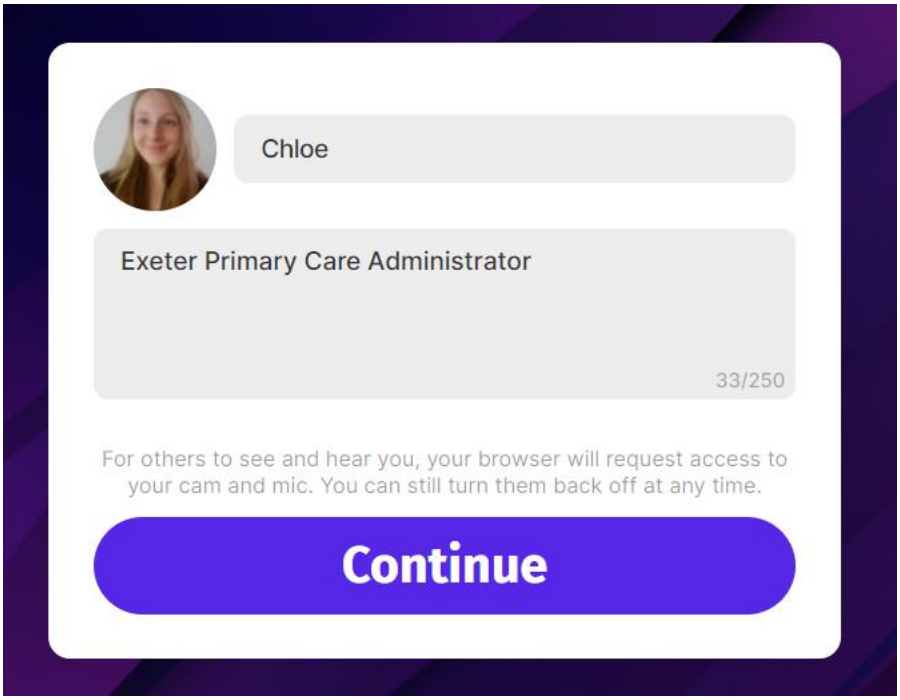
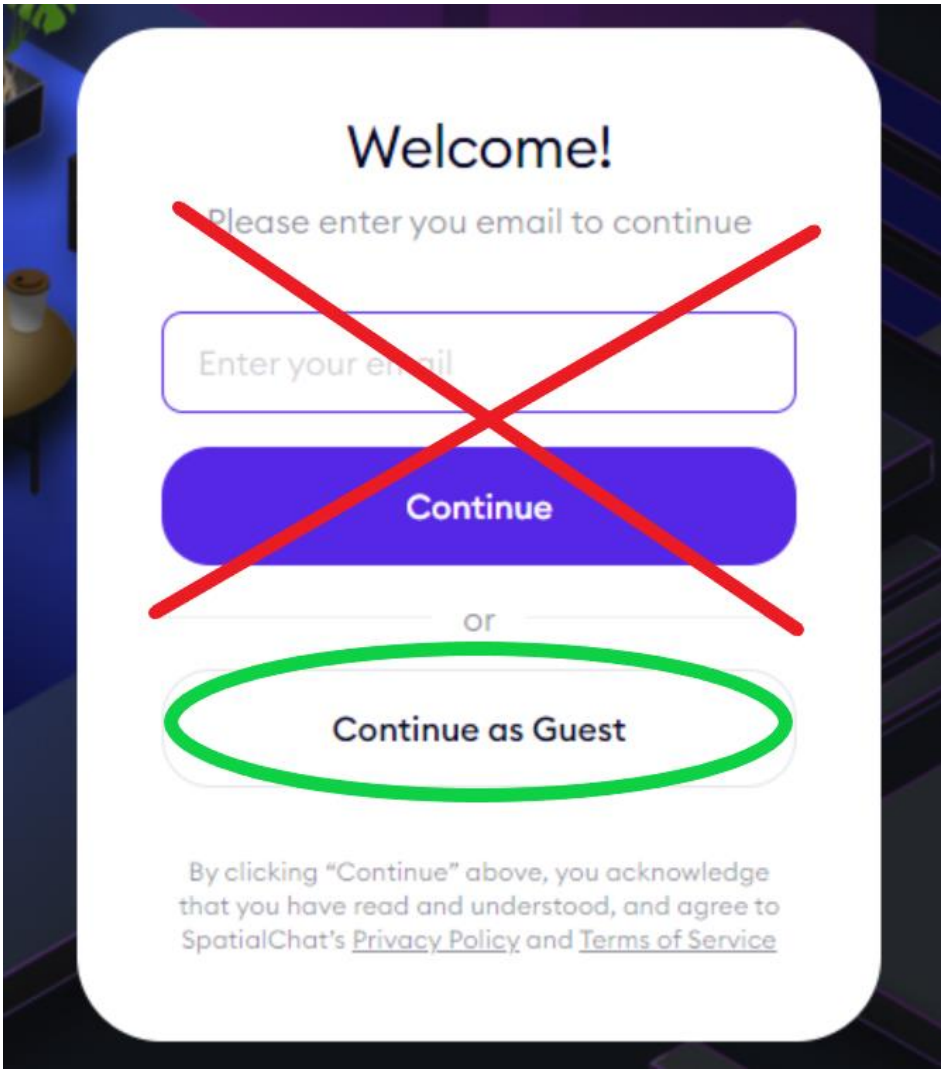


DO NOT ENTER YOUR EMAIL. ENTER AS A GUEST.



If you registered via the Exeter Online Store, you should have received this link and instructions on how to join. If you are having an issues, email Chloe: c.thomas6@exeter.ac.uk

Watch the 3 minute YouTube Tutorial on how to use Spatial Chat

Visit Spatial Chat for FAQs

Cut and paste these link if those above are not working for you:

FAQs - https://help.spatial.chat/hc/en-us

Tutorial - https://www.youtube.com/watch?v=QM_ojiCxMRY

Keynote 1: Trish Greenhalgh Thursday 10th March 13:10-13:55

"Crisis policymaking: what can pragmatist philosophy teach us?"

Trish Greenhalgh is Professor of Primary Care Health Sciences and Fellow of Green Templeton College at the University of Oxford. She studied Medical, Social and Political Sciences at Cambridge and Clinical Medicine at Oxford before training first as a diabetologist and later as an academic general practitioner. She has a doctorate in diabetes care and an MBA in Higher Education Management. She leads a programme of research at the interface between the social sciences and medicine, working across primary and secondary care.

Her work seeks to celebrate and retain the traditional and the humanistic aspects of medicine and healthcare while also embracing the exceptional opportunities of contemporary science and technology to improve health outcomes and relieve suffering. Three particular interests are the health needs and illness narratives of minority and disadvantaged groups; the introduction of technology-based innovations in healthcare; and the complex links (philosophical and empirical) between research, policy and practice. She has brought this interdisciplinary perspective to bear on the research response to the Covid-19 pandemic, looking at diverse themes including clinical assessment of the deteriorating patient by phone and video, the science and anthropology of face coverings, and policy decision-making in conditions of uncertainty.

Trish is the author of over 400 peer-reviewed publications and 16 textbooks. She was awarded the OBE for Services to Medicine by Her Majesty the Queen in 2001 and made a Fellow of the UK Academy of Medical Sciences in 2014. She is also a Fellow of the UK Royal College of Physicians, Royal College of General Practitioners, Faculty of Clinical Informatics and Faculty of Public Health.

Keynote 2: Ruth Garside Thursday 10th March 16:30-17:15

"Nature-based social prescribing for mental health"

Ruth is a social science researcher specialising in systematic review and evidence synthesis. She has over 15 years' experience using quantitative and qualitative research methods to investigate a range of policy relevant health, social care questions and environmental questions. Her work has informed national policy customers including the National Institute for Health and Clinical Excellence (NICE) and the Home Office. Ruth's current focus is on appraising health benefits from the environment. Recent projects have focused on nature-based social prescribing, including work for Defra, the development of a Handbook to support organisations to provide safe and effective nature based social prescribing interventions and an ongoing evaluation looking at how to scale up and embed nature-based social prescribing to support mental health.

Keynote 3: Angela Wood Friday 11th March 12:00-12:45

"CVD-COVID-UK: Understanding relationships between COVID-19 and cardiovascular diseases through analyses of linked, nationally collated healthcare datasets"

Angela Wood is Professor of Health Data Science at the Department of Public Health and Primary Care, University of Cambridge. She has key leadership roles for major data-driven initiatives: she is director of Biostatistics of the BHF Cardiovascular Epidemiology Unit, Cambridge; is appointed co-Leader of the Population and Quantitative Science theme for the NIHR Cambridge Biomedical Research Centre; and serves as the co-Leader of Data-Analysis Work-packages in BigData@Heart and the BHF Data Science Centre CVD-COVID-UK Consortium.

She is the principal statistical advisor for a number of international consortia based on individual participant data including the Emerging Risk Factors Collaboration relating to cardiovascular disease and the EPIC-CVD European case-cohort study. She has led major new national training efforts in health data science and serves on the national training teams for Health Data Research UK and the Alan Turing Institute, as well as contributing to teaching and supervision of students across the Cambridge biomedical campus.

She has co-authored 100+publications, predominantly in methods and applications related to epidemiological studies. She is an expert in the statistical aspects of missing data, risk prediction, longitudinal data and joint modelling, measurement error, meta-analysis, and Mendelian randomisation. She has received methodological grants from the MRC, British Heart Foundation and Alan Turing Institute and has been a key biostatistical co-investigator in major grants awarded by the British Heart Foundation, MRC, NIHR and EU FP7.

Programme

SW SAPC 2022 Outline Programme		
Day 1 Thurs 10th March 2022	11:00-12:00	PhoCUS Group Meeting
	13:00-13:10	Welcome to SW SAPC 2022– Gary Abel
	13:10-13:55	Keynote 1 - Trish Greenhalgh Chair: Richard Neal
	14:00-15:00	Session 1 Parallel talks
	15:00-15:30	Break & Networking
	15:30-16:30	Session 2 Parallel talks
	16:30-17:15	Keynote 2 - Ruth Garside Chair: John Campbell
Day 2 Friday 11th March 2022	9:00-9:10	Welcome to day 2 – Gary Abel
	9:15-10:30	Session 3 Parallel talks
	10:30-11:00	Break & Networking
	11:00-12:00	Session 4 Parallel talks
	12:00-12:45	Keynote 3 - Angela Wood Chair: Willie Hamilton
	12:45-13:00	Closing & prize giving – Gary Abel

Session 1, 10th 14:00-15:00	**Room 1: COVID** **Chair: Beth Stuart & Sarah Price**	**Room 2: Prescribing** **Chair: James Sheppard & Sinead McDonagh**	**Room 3: Models of working** **Chair: Gary Abel**	**Room 4: Miscellaneous** **Chair: Fiona Warren**
Long talk 1 14:00-14:15	Zoe Doran & Joseph Coombes Application of feasibility lessons during Covid-19 within an evaluation of a primary care based system of dementia care in the form of a specially trained dementia support worker	Peter Tammes The association of continuity of primary care with initiating prescribing and treatment adherence for cardiovascular medication: a cohort study among patients in England	Joanne Clarke Establishing a baseline of learning & development of pharmacy professionals in general practice within Bristol, North Somerset and South Gloucestershire (BNSSG).	Pamela Smith & Dr Gwenllian Moody Feasibility of a Targeted Intensive Community-based campaign To Optimise Cancer awareness (TIC-TOC)
Long talk 2 14:15-14:30	Ishrat Islam Development of a core outcome set for the evaluation of interventions preventing COVID-19 in care homes (COS-COVID-PCARE Study)	George Trilloe The association of multimorbidity and polypharmacy with symptom severity and number of urodynamic diagnoses in men presenting with lower urinary tract symptoms in primary care: cross sectional study	Judit Konya The role of Pharmacists in primary care in the care of patients with diabetes – a narrative review of studies in the United Kingdom	Sara McKelvie Team Decisions to manage Clinical Uncertainty
Long talk 3 14:30-14:45	Philip Turner Rapid community point-of-care testing for COVID-19 (RAPTOR-C19): diagnostic performance of two rapid antigen detection tests for SARS-CoV-2 in symptomatic patients in community settings.	Julian Treadwell General Practitioners' use and understanding of the quantitative benefits and harms of treatments for common long-term conditions: a qualitative interview study.	Georgette Eaton Understanding the role of paramedics in primary care	Alun Surgey ThinkCancer! Results from a phase 2 randomised controlled feasibility trial
Short talk 1 14:45-14:50	Harleen Kooner Infection control behaviours to reduce transmission of COVID-19 within households: a retrospective survey	Julian Treadwell General Practitioners' understanding of the benefits and harms of treatments for long-term conditions: an online survey.	Jane R Smith Exploring a whole-practice approach to improving management of at-risk asthma patients: a mixed-methods process evaluation of the At-Risk Registers Integrated into primary care to Stop Asthma crises in the UK (ARRISA-UK) intervention	Kiana K Collins Adequacy of clinical guideline recommendations for patients with low-risk cancer managed with monitoring: Systematic review 1DP
Short talk 2 14:50-14:55	Alisha Giby Long Covid symptom clusters and risk factors: an online questionnaire study	Nana Yaa Amakye & Jonathan Chan Emollient prescribing formularies and guidelines in England, 2021: cross sectional study	Mark Kingston Paramedics in Primary Care: Implementation matters	Judit Konya Early cancer diagnosis – can outcomes in deprived areas be improved by involving community pharmacists?
Short talk 3 14:55-15:00	-	Aleksandra Borek The role and contribution of a behavioural approach to qualitative research on antimicrobial stewardship in primary care	Vanashree Sexton Telephone based digital triage in urgent care provision: A routine data analysis of patients' service use and patterns of triage advice	Melissa Barlow Exploring differences in the distribution of results of selected blood tests for adults of different ethnic groups: a systematic review

Session 2, 10th 15:30-16:30	**Room 1: Infection** **Chairs: Emily Brown & Richard Neal**	**Room 2: Women's health** **Chair: Emma Pitchforth**	**Room 3: Workforce** **Chair: Chris Salisbury & Sinead McDonagh**	**Room 4: Miscellaneous** **Chair: Rupert Payne & Sarah Price**
Long talk 1 15:30-15:45	Matthew Ridd Amitriptyline for the prevention of post-herpetic neuralgia (ATHENA): study protocol	Immaculate Ajok Okello Barriers and enablers for implementing maternal and perinatal death surveillance and response in low- and middle-income countries: a systematic review of qualitative studies	Bethan Treadgold Informing the revision of Clinical Excellence Awards (INCEA): qualitative interviews with current assessors and other key stakeholders on defining and scoring excellence	Abigail Moore Recognition and management of acute functional decline in older people living in care homes: a qualitative interview study with care home staff
Long talk 2 15:45-16:00	Christopher Wilcox The BLIS study: protocol for a randomised feasibility study assessing compliance, acceptability and colonisation with different dosing regimens of the probiotic supplement Streptococcus salivarius K12 (Bactoblis®) in adults	Sharon Dixon PRECODE: Primary care response to domestic violence and abuse in the Covid-19 pandemic	Rosina Cross Recruitment and retention of staff in rural dispensing practice	Samuel Dalton The effectiveness of vaccinations for prevention of acute respiratory infections in care homes: a systematic review of randomised controlled trials
Long talk 3 16:00-16:15	Efi Mantzourani What is the value of routine point-of-care tests to detect Strep A infections as part of a Sore Throat Test and Treat service in community pharmacy? Comparing two service delivery models.	Elizabeth Emsley The transition to remote domestic violence training during the COVID-19 pandemic: lessons from primary care	-	-
Short talk 1 16:15-16:20	Elizabeth Lovegrove Low-dose amitriptyline for the prevention of post-herpetic neuralgia (ATHENA): a Study Within A Trial (SWAT).	Iwan Jones Exploring symptoms in uncomplicated female urinary tract infection and their relationship to bacterial infection and age	Tanuka Palit A qualitative study to explore the relationships between multidisciplinary team members who provide community palliative and end of life care.	Richard Stevens Primary healthcare evaluation in big data bases: opportunities for interrupted time series analysis
Short talk 2 16:20-16:25	Aleksandra Borek Stopping antibiotics when you feel better: exploring views of clinicians and patients in using antibiotics differently in general practice	Sharon Dixon The EMPOWER project: Exploring & Mapping PriOrities for Women's health technology, Equipment, kit, devices, and pRoducts	Gary Abel Informing the revision of Clinical Excellence Awards (INCEA): An online Delphi process to establish consensus around principle for a new scoring system.	Yousaf U The Effectiveness of Interventions to Reduce the Transmission of Acute Respiratory Infections in Care Homes: A Systematic Review
Short talk 3 16:25-16:30	George Edwards What is the diagnostic accuracy of novel urine biomarkers for urinary tract infection?	-	Elizabeth Emsley/ Joshua Smith Understanding the policy landscape of trauma-informed approach in the UK: a qualitative study with HCPs	Melanie Gruben - UNCONFIRMED Lean on Me: proposing a model of stress-reduction for caregivers of mental illness through online support groups

Session 3, 11th 9:15-10:30	**Room 1: Children** **Chairs: Bethan Treadgold & Jane Smith**	**Room 2: Cancer** **Chair: Willie Hamilton**	**Room 3: Mental health** **Chairs: Jeff Lambert & Fiona Warren**	**Room 4: Research conduct** **Chairs: Rosina Cross & Luke Mounce**
Long talk 1 9:15-9:30	Ruth Mears A cross-sectional survey of child weight management service provision by acute NHS trusts across England in 2020	Sarah Bailey Applying a genetic risk score for prostate cancer to men in the UK Biobank consulting their general practitioner with symptoms of possible prostate cancer	Debra Richards Effectiveness of a primary care based collaborative care model to improve quality of life in people with severe mental illness: the PARTNERS2 cluster randomised controlled trial	Penny Seume A more efficient approach to randomised controlled trials in primary care using routinely collected practice-level data
Long talk 2 9:30-9:45	Paul Little Antibiotics for lower Respiratory Tract Infection in Children presenting in Primary Care (ARTIC PC): a randomised placebo controlled trial	Tanimola Martins Ethnic inequalities in routes to diagnosis of cancer: a population-based UK cohort study	Charley Hobson-Merrett & Ben Jones Effectiveness of collaborative care approaches for people with severe mental illness: A Cochrane systematic review	Shakira Milton Running a trial remotely. An RCT of a decision aid to support informed choices about taking aspirin to prevent colorectal cancer and other chronic diseases: teletrial design and recruitment during COVID-19
Long talk 3 9:45-10:00	Jonathan Chan Do weather changes affect eczema in a UK cohort of children with eczema?	Bianca Wiering Exploring the impact of comorbidities on cancer stage at diagnosis and 30 day mortality; a retrospective cohort study	Amelia Talbot Experiences of Treatment-Resistant Mental Health Conditions in Primary Care: A Systematic Review and Thematic Synthesis	Helen Baxter Techniques and mechanisms used for knowledge sharing in healthcare: a restricted systematic review of published NIHR funded research.
Long talk 4 10:00-10:15	Samantha Hornsey Management of paediatric chronic insomnia: a mixed-methods study of UK primary care practitioners. Exploring their views, knowledge and current practice.	Melissa Barlow Platelet count and thrombocytosis occurrence in pre-diagnostic lung cancer patients	Rachel Dewar-Haggart Exploring beliefs, attitudes, and behavioural intentions towards long-term antidepressant use in the management of people with depression: a mixed-methods study	Tanvi Rai What could help shift research activity to the areas with the highest disease prevalence? A qualitative study exploring how NIHR funded Chief Investigators select trial sites in multi-site RCTs.
Short talk 1 10:15-10:20	Simon Hall A Cleft In Time	Liz Down Comparison of blood test outcomes for cancer diagnosis in different ethnic groups – the EPIC study	Lauren Bridewell Patient Reported Outcome Measures For Monitoring Primary Care Patients With Depression: A Qualitative Study	David Shotter A robust process for generating SNOMED-CT codelists
Short talk 2 10:20-10:25	Fiona Wood What matters to families about the healthcare of preterm or low birth weight babies: A qualitative evidence synthesis	David Shotter Deriving alternative explanations for features of cancer	Charley Hobson-Merrett Prevalence, impact, & management of fatigue & sedation related side effects of antipsychotics in mental health patients living in the community: a systematic scoping review	Noreen Hopewell-Kelly & Natalia V Lewis Coming together to make research: a case study of the impact of involvement in research on people with lived experience of domestic abuse
Short talk 3 10:25-10:30	Anna Gilbertson Which type of emollient? The development of an aid to share decision	Pui San Tan Temporality of body mass index, blood tests, comorbidities, and medication use	Jemima Cooper Understanding healthcare professionals' physical activity promotion behaviours	-

	making in primary care for children with atopic eczema.	as early markers for pancreatic ductal adenocarcinoma (PDAC): a nested case-control study	when treating individuals with depression in primary care: a systematic review	

Session 4, 11th 11:00-12:00	**Room 1: Access Chairs: Helen Atherton & Gary Abel**	**Room 2: Communication/consultation Chair: John Campbell**	**Room 3: Chronic disease Chair: Sam Merriel**	**Room 4: Miscellaneous Chair: Phil Evans**
Long talk 1 11:00-11:15	Jeffrey Lambert Facilitating access to online NHS primary care services - current experience and future potential (Di-Facto): The Practice Survey	Jessica Watson 'I guess I'll wait to hear': a qualitative study of systems for communicating blood test results	Alyson L Huntley/Lorna J Duncan Self-management strategies for people with heart failure-related fatigue: a systematic review.	Janice Hoang Exploring stakeholders' perceptions of education and training pathways for GPs: an international qualitative study
Long talk 2 11:15-11:30	Helen Atherton Facilitating access to online NHS primary care services a focussed ethnography	Lucy Pocock Communication of poor prognosis between secondary and primary care: a systematic review with narrative synthesis	James Sheppard The association between antihypertensive treatment and serious adverse events by age and frailty: an observational cohort study of 3.8 million patients followed up for 10 years	Charley Hobson-Merrett Realist process evaluation of the PARTNERS collaborative care intervention for people with diagnoses of severe mental illness
Long talk 3 11:30-11:45	Ross Watkins The weighting game: what online forums reveal about the patient experience of accessing weight management services	Claire Friedemann Smith Optimising GPs' communication of advice to facilitate patients' self-care and prompt follow-up when the diagnosis is uncertain: A realist review of 'safety-netting' in primary care	Ian Porter The International Survey of People Living with Chronic Conditions (PaRIS survey): development of the patient questionnaire	Tom Thompson The influence of socioeconomic status on engagement and response to a behavioural intervention to support people wishing to reduce but not quit smoking and increase physical activity (The TARS trial)
Short talk 1 11:45-11:50	Rachel Winder Di-Facto: Supporting access to online services in general practices – the patients' perspective	Molly Dineen Family history recording in UK general practice: The lIFeLONG study	Helen Ashdown Measuring blood eosinophil counts of patients with COPD in primary care using near-patient testing	Julian Elston & Todd Chenore Implementing Population Health Management programme in Devon to support primary care and Local Care Partnerships to delivery more person-centred services and address health inequalities? A Researcher in Residence study
Short talk 2 11:50-11:55	Victoria Bak Facilitating access to online NHS primary care services: thematic content analysis of practice survey free-text responses	Emily Fletcher Workload and workflow implications associated with the use of electronic risk assessment tools used by health professionals in general practice: a scoping review	Geraldine Goldsmith Adherence to physical rehabilitation delivered via tele-rehabilitation for people living with Multiple Sclerosis: a scoping review protocol	Yvette Pyne Meta-work: how we research is as important as what we research
Short talk 3 11:55-12:00	-	-	Devika Sreejith	-

			The Views Of Patients And Their Doctors/Nurses About The Use Of Herbal Medicines For The Management Of Type 2 Diabetes – Systematic Review Of Qualitative Studies	

PhoCUS group meeting
Thursday 10th March 11:00-12:00

The Primary Health Care Scientists group will be meeting at 11am on Day 1 to talk career ladder-climbing.

Special guests: Katrina Turner, James Sheppard, Fiona Warren, Claire Breading

Prizes
Friday 11th March 12:45-13:00

£25 gift vouchers awarded to:

- **Best short presentation**
- **Best long presentation**
- **Best Early Career Researcher presentation + free entry to National SAPC 2022**

Social event - Quiz
Thursday 10th March from 20:00

Prizes for the winning team!

ABSTRACTS

Gary Abel - University of Exeter

Informing the revision of Clinical Excellence Awards (INCEA): An online Delphi process to establish consensus around principle for a new scoring system.

Robert Froud, Emma Pitchforth, Bethan Treadgold, John Campbell

Problem

A scheme to reward senior doctors in the NHS has been in place since 1948. Currently the scheme takes the form of clinical excellence awards for consultants and senior academic GPs. A review of the scheme is currently underway and research has been commissioned to inform a new scoring system to be used in the assessment of applications. This has, in part, been motivated by previous research a lack of sensitivity to detect differences between applicants for the highest levels of award.

Approach

50 prospective panel members were approached to take part in an on-line Delphi process, drawn from current members of the UK Advisory Committee on Clinical Excellence Awards (ACCEA) and representatives of professional bodies (e.g. Royal colleges and specialist groups). The Delphi took place over three rounds. In each round panel members rated the appropriateness of items related to the definition of clinical excellence, scoring scales and principles around the scoring of applications for applicants working less than full time. Panel members were also invited to give comments and suggest alternative wordings. Agreement was determined using the RAND/UCLA appropriateness method.

Findings

Of those invited, 90% participated and of those who started the process, 87% completed. Consensus was achieved around a set of principles which could underpin a future scoring system. In particular, a 0-10 scale with clearly defined scale descriptors covering a range of points with the lowest point on the scale reflecting someone operating below the expectations of their job plan was agreed as appropriate. Further, there was consensus that an applicant scoring at the highest point on the scale would be seen to be making an outstanding contribution, which is substantially exceeding the expectation of job description, highly impactful, highly significant, and of national or international reach.

Consequences

Clinical excellence awards account for a substantial spend from the public purse and thus far the deployment of these funds has not had a strong evidence base behind it. The INCEA project is aiming to counter this deficit and the findings presented here provide a clear way forward for scoring future applications. A new scoring system based on these principles is currently being tested in a shadow scoring exercise.

Dr Nana Yaa Amakye, Dr Jonathan Chan - Centre of Academic Primary Care, University of Bristol.

Emollient prescribing formularies and guidelines in England, 2021: cross sectional study

Dr Nana Yaa Amakye, Dr Jonathan Chan, Professor Matthew Ridd

Problem

Emollients are a mainstay of treatment for dry skin conditions. In the UK, prescribers are usually expected to follow local formularies. A previous study in 2017 showed that recommended emollients across England and Wales varied widely. Evidence has since emerged that emollient bath additives provide no additional clinical benefit in children with eczema.

Approach

We aimed to compare all of the emollient formularies and guidelines in England. CCG formulary and guidelines data were collected in April-May 2021, compiled, and then analysed descriptively using STATA (version 16). All percentages are rounded to the nearest whole number unless stated otherwise.

Findings

105 CCGs, 72 emollient formularies and 47 emollient prescribing guidelines were identified. There were internal inconsistencies between formularies and their accompanying guidelines in 19%. 68% of formularies/guidelines were organised using a ranking system. A total of 126 different leave-on emollients were named. Creams and ointments are universally available, and the most recommended first-line types. Aqueous cream was the most common “not recommended” leave-on emollient. The majority of formularies (81% for Dermol 500 lotion, 72% for Dermol cream) now qualify the use of antimicrobial emollients by indication or duration. 74% of formularies now state that bath additives should not be prescribed.

Consequences

All CCGs in England have an emollient formulary/guideline and there still exists a great variation in their recommendations. While the number of formularies/guidelines has reduced since 2017 due to mergers, there has been an increase in the total number of unique recommended leave on emollients. Most CCGs no longer recommend bath additives for eczema. (oral presentation preferred, but poster also suitable if not accepted for oral presentation)

Helen Ashdown - Nuffield Department of Primary Care Health Sciences, University of Oxford

Measuring blood eosinophil counts of patients with COPD in primary care using near-patient testing

Emily McFadden Margaret Smith Heather Rutter Chris Butler Mona Bafadhel

Problem

Current COPD guidelines recommend initiation of inhaled corticosteroids (ICS) when patients have frequent/severe exacerbations and a higher blood eosinophil count (part of the full blood count (FBC)). However, a recent FBC may not be available or may have been taken at a time when the patient was unstable. We investigated whether blood eosinophils tested using a near-patient device in primary care could be used as an alternative to laboratory testing.

Approach

This was a method comparison and acceptability study, nested within a larger prospective observational study assessing blood eosinophil repeatability. ICS-naïve patients with COPD were identified from their primary care records. Participants attended for four study visits over a six-month period, and at each had a venous blood sample sent for routine laboratory FBC and a capillary (finger-prick) blood sample tested immediately using the Hemocue® WBC DIFF point-of-care (POC) machine. At the final visit, participants completed a survey about the acceptability of the tests.

Findings

303 paired laboratory venous (LAB) and capillary POC samples were available, from 92 participants. In continuous analysis, there was a small but significant difference between the tests (mean eosinophils 0.20 (LAB) vs. 0.19 x10^9/L (POC), mean difference 0.01 x10^9/L (p=0.01)) and using Bland-Altman methods there was a small but significant correlation of measurement difference with mean (r=-0.19 (p=0.001)). In binary analysis using thresholds of 0.15 and 0.34 x10^9/L, Cohen's kappa was 0.74 and 0.77 respectively (p<0.001), indicating substantial agreement. In the survey, participants found the finger-prick test less uncomfortable than the venous sample, and would welcome its inclusion in their COPD annual review.

Consequences

There is high measurement agreement between near-patient and laboratory measurement of blood eosinophils, with no clinically significant difference between groups, using the Hemocue® WBC DIFF machine, and it was acceptable to participants in a study setting. Near-patient testing could be used in practice to provide an eosinophil count during the COPD annual review to guide ICS initiation and replace the need for laboratory testing for this purpose. However, further research is needed into health economic aspects and implementation of the device in a real-life setting.

Sarah Bailey - University of Exeter

Applying a genetic risk score for prostate cancer to men in the UK Biobank consulting their general practitioner with symptoms of possible prostate cancer

Harry Green, Richard Oram, Mike Weedon, Chrissie Thirlwell, Sam Merriel

Problem

Prostate cancer is highly heritable, with over 300 common variants associated in genome wide association studies. Prostate cancer commonly presents with non-specific symptoms (lower urinary tract symptoms, LUTS) that are frequently associated with benign conditions. The incidence of LUTS, benign prostate enlargement, and prostate cancer all rise with age, complicating efforts to accurately identify tumours. A public and patient involvement group consisting of six men with personal experience of prostate cancer investigation, who inform ongoing prostate cancer research in our group, felt the potential benefits in improving early detection of prostate cancer and avoiding unnecessary, invasive diagnostic tests outweighed concerns about using genetic information.

Approach

Cohort study using UK Biobank data. Men registered with the UK Biobank, eligible for the primary care data linkage, with a record showing that they consulted their general practitioner with lower urinary tract symptoms (LUTS) that could indicate possible prostate cancer were included. The primary outcome measure was a diagnosis of prostate cancer within two years of the participant's first consultation with their general practitioner for LUTS. The association between the GRS and a prostate cancer diagnosis was evaluated in a logistic regression model. An integrated risk model was developed including symptoms, patient demographics, and GRS to test if predictive power was enhanced in combination. Diagnostic performance of the integrated model was estimated at multiple incidence thresholds.

Findings

Of 6930 men reporting prostate cancer symptoms in the UK Biobank's GP records, 241 had a record of prostate cancer within two years (3.5%). 152 were excluded due to pre-existing prostate cancer. In the 241 men with a prostate cancer diagnosis within two years of symptoms, the mean GRS was 22.84 (SD 0.84) vs 22.17 (SD 0.82) in the 6537 men who were not diagnosed with prostate cancer (OR=2.64 [2.25-3.08] p=1e-33). An integrated risk model including GRS and age returned a ROC area under the curve (AUC) of 0.779 (95% CI 0.751 to 0.807). Adding family history or symptom profile provided a negligible increase in predictive power. Men in the bottom GRS quintile had a two-year incidence of prostate cancer of less than 1%.

Consequences

At least one fifth of men with LUTS have a <1% chance of prostate cancer based on their GRS. Stratification of men with LUTS with an integrated risk model including prostate cancer GRS could be used to guide the selection of men for suspected prostate cancer investigation, with those at the highest risk being rapidly investigated, and those at the lowest risk avoiding invasive and unnecessary investigations. This study is the first to show that genetic data, in the form of genetic risk scores, could be a useful addition to suspected prostate cancer pathways in UK primary care. We are currently expanding this approach to other cancer types.

Victoria Bak - University of Exeter

Facilitating access to online NHS primary care services: thematic content analysis of practice survey free-text responses

Jeffrey Lambert, Helen Atherton, Bethan Treadgold, Gary Abel, Brandi Leach, Hamish Evans, Rachel Winder, John Campbell

Problem

New digital services are continually being developed within NHS primary care services, in line with the NHS long-term plan. However, how patients are supported to use such services is poorly understood. This is particularly relevant considering the COVID-19 pandemic. Digital facilitation is defined as a "range of processes, procedures, and personnel which seeks to support NHS patients in their uptake and use of online services". As part of the Di-Facto project, we conducted a survey of how general practices (GP) support and promote digital facilitation. Here, we report the main themes contained in the free-text responses of that survey.

Approach

An email/postal survey was sent to 500 GPs in England. Items addressed which online services were being used and what steps had been implemented in practices to promote and support the use of such services. 12 questions, offering mainly pre-defined answers, included 8 with an additional option to specify a free-text answer and 1 requesting a free-text-only answer. Thematic analysis was undertaken to identify the main themes emerging from the data.

Findings

66 out of 156 practices provided one or more free text response. Rather than commenting about digital facilitation, many respondents focused on the efficiency of workflow that involved digital services. These responses were excluded from the identification of the themes. This led to identification of four main themes from the data: (1) the impact of COVID-19 on digital services, (2) the range of digital facilitation being provided through online provision, (3) the range of digital facilitation being provided through in practice/in-person provision and (4) attitudes underlying the adoption of digital facilitation provision. Some responses were ambiguous, lacking detail about whether digital facilitation took place digitally or in-person, or failing to specify the time-sequence of offering such services in relation to the pandemic.

Consequences

We have provided specific examples of what types of digital facilitation interventions have been implemented, albeit in a small number of practices. COVID-19 has affected the implementation of such services, acting both as a driver and barrier to change. Facilitating access to NHS digital services requires careful thought, pre-planning, and dedicated support.

Melissa Barlow - University of Exeter

Exploring differences in the distribution of results of selected blood tests for adults of different ethnic groups: a systematic review

Liz Down, Sam Merriel, Jessica Watson, Luke Mounce, Willie Hamilton, Tanimola Martins, Sarah Bailey

Problem

There are differences in cancer incidence and mortality across the White, Black, Asian, Mixed and Other ethnic groups in the UK. Abnormal results in certain blood tests have been linked to an increased likelihood of cancer. Reference ranges are applied to blood test results regardless of patient ethnicity in the UK; however, it is not known whether the distribution for these blood tests differ. The present study examined the evidence on ethnic variation in the blood test results used to identify cancer in primary care.

Approach

PubMed and Embase were searched on the 24th September 2021 and identified studies that reported results of prostate-specific antigen (PSA), cancer antigen 125 (CA125), platelet count, haemoglobin, mean corpuscular volume (MCV), serum calcium, albumin or C-reactive protein (CRP)) for at least two ethnic groups. Included studies reported either averages in these blood test results, or proportions of patients with abnormal results, by ethnic group. The study population must have been general / healthy adults with the full text available in English.

Findings

The search returned 4,980 studies, including 1,105 duplicates. Two reviewers independently screened the abstracts of the remaining 3,875 studies, resulting in 148 studies eligible for full-text screening. Full-text screening is currently underway and at SAPC SW the results of this systematic review for each blood test and ethnic group will be presented.

Consequences

Unique distributions in the normal ranges of blood test results in different ethnic groups would be of great significance for clinical practice; however, the application of this would have to be carefully considered to prevent further health inequality. Further research will need to assess the levels at which variation in blood test results becomes of clinical significance, and could therefore be of use in identifying patients who could be at risk of harbouring cancer or other diseases, and whether this differs by ethnicity.

Melissa Barlow - University of Exeter

Platelet count and thrombocytosis occurrence in pre-diagnostic lung cancer patients

Willie Hamilton, Sarah Bailey

Problem

Lung cancer is the leading cause of cancer death worldwide. Two-thirds of lung cancer patients are diagnosed at an advanced stage, often following the onset of symptoms such as a cough or haemoptysis. Thrombocytosis (a platelet count of over 400x109/L) is a positive predictive marker for lung cancer and is often present before the onset of other symptoms. It is not known at what point in time the platelet count begins to rise before a lung cancer diagnosis, or whether thrombocytosis is equally indicative of its three main histological subtypes: adenocarcinoma (ADC), squamous cell carcinoma (SCC), and small cell lung cancer (SCLC).

Approach

A matched cohort study analysed primary care records from the Clinical Practice Research Datalink (CPRD) with linkage to the cancer registry. There were 4,720 lung cancer patients (2,355 ADC, 1,546 SCC, and 819 SCLC) matched on age, sex, and practice at a ratio of 1:5 to 23,076 healthy controls. Fractional polynomial regression predicted the rise in platelet count in the days preceding lung cancer diagnosis, stratified by subtype and controls. The z-test for independent proportions compared thrombocytosis occurrence between cases and controls (by subtype), and between subtype cases. Logistic regression predicted the odds of exhibiting pre-diagnostic thrombocytosis for each subtype and evaluated any potential interaction effects of confounding factors.

Findings

The platelet count began to rise for lung cancer patients 300 days before diagnosis, with SCC patients experiencing a significantly faster rise than ADC and SCLC. At the point of diagnosis, 22.6% of SCC patients had thrombocytosis (95% CI: 20.5% to 24.7%) compared to 15.5% of ADC (95% CI: 14.1% to 17.0%, $p<0.0001$) and 16.1% of SCLC (95% CI: 13.6% to 18.6%, $p<0.001$). There was no evidence of an interaction of smoking status, stage at diagnosis, or anti-platelet drug use on this effect.

Consequences

The rise in platelet count leading up to a lung cancer diagnosis may indicate that GPs should consider lung cancer in patients with an otherwise unexplained steady rise in platelet count, even if they are below the thrombocytosis threshold. Furthermore, an increased platelet count is more indicative of SCC over ADC and SCLC.

Helen Baxter - NIHR CED & University of Bristol

Techniques and mechanisms used for knowledge sharing in healthcare: a restricted systematic review of published NIHR funded research.

Lindsay Bearne Candace Imison Tracey Stone Alyson Huntley

Problem

The National Institute for Health Research (NIHR) funds over £1 billion of health and social care research annually to inform service design and improve patient care. Yet commissioning and healthcare service design is infrequently based on the best available evidence. Knowledge that is co produced by researchers and stakeholders is more likely to lead to evidence based services. Understanding the mechanisms and processes that facilitate knowledge sharing between researchers and stakeholders is important to address this gap. This systematic review will describe and synthesize the techniques and mechanisms used for knowledge sharing in published NIHR funded studies.

Approach

A restricted systematic review was conducted (PROSPERO CRD42020171293. Database searches (MEDLINE, HMIC) for published studies from 1946 until present and forward and backward referencing of included studies was conducted. No language restrictions were applied. Knowledge mobilisation websites and topic experts were consulted. Records were exported to Covidence for de-duplication and screening. Eligibility criteria included (i) NIHR funded research (ii) knowledge sharing between researchers with stakeholders but not between stakeholder and stakeholder, (iii) any interactional medium and any control group if present. All screening was conducted by one reviewer. 20% records were independently screened by a second reviewer. Disagreements were resolved by agreement and a third reviewer, arbitrated, if necessary. A data extraction tool was developed a priori, and the Risk Of Bias In Non-randomised Studies of Interventions-1, Critical Appraisal Skills programme checklists, or Mixed Methods Appraisal Tool risk of Bias tools applied, as appropriate. Data will be summarised narratively and either grouped or tabulated. Concept mapping will be used supported by qualitative case descriptions.

Findings

Following database searches 8,939 records were identified. After de-duplication 8,788 records remained. To date, title and abstract screening has been conducted. The results will be finalised in March 2022.

Consequences

This review will identify the knowledge sharing between researchers and stakeholders in published NIHR funded research. These findings will inform the work of the NIHR Centre for Engagement and Dissemination, which seeks to support and promote research practices that facilitate knowledge sharing between researchers and stakeholders.

Aleksandra Borek - University of Oxford

The role and contribution of a behavioural approach to qualitative research on antimicrobial stewardship in primary care

Marta Santillo, Marta Wanat, Christopher Butler, Sarah Tonkin-Crine

Problem

Antibiotic prescribing in primary care is one of the key contributors to antimicrobial resistance (AMR). Improving and implementing antimicrobial stewardship (AMS) interventions to optimise antibiotic prescribing and use is critically important to mitigate against AMR. AMS is constituted by sets of behaviours and usually require some change in behaviour or clinical practice. Thus, a behavioural science approach has an important role and contribution to tacking AMR and promoting AMS. This presentation aims to highlight this role and contribution, and illustrate it with examples from studies in primary care.

Approach

The approach involves a methodological discussion, illustrated with empirical examples.

Findings

First, we provide an overview of helpful behaviour change 'tools' (behaviour change theories/models, behavioural determinants, and behaviour change techniques) and methods. Next, we discuss how a behavioural approach (based on health-related behaviour change theories and methods) can contribute and add value to AMS/AMR research in primary care, in three ways: identifying behavioural 'problems' and influences; developing behaviour change interventions, and evaluating behavioural AMS interventions. We illustrate it with examples from two recent studies: the ENACT study that involved a behavioural analysis to identify influences on, and interventions targeting, antibiotic prescribing in primary care; and the STEP-UP study that involved developing and evaluating a behavioural intervention to improve implementation of AMS strategies. Finally, we will conclude by discussing the key implications for using the behavioural approach in primary care research and practice, while highlighting areas where this approach could be more utilised in the future.

Consequences

The behavioural approach is well suited to improve behaviours related to prudent use of antibiotics and preventing/mitigating AMR. It has been increasingly used as part of AMS efforts in secondary care. Better understanding this approach may also help increase the use of this approach in primary care research.

Aleksandra Borek - University of Oxford

Stopping antibiotics when you feel better: exploring views of clinicians and patients in using antibiotics differently in general practice

George Edwards, Marta Santillo, Marta Wanat, Sarah Tonkin-Crine

Problem

Evidence for the duration of antibiotic courses currently used in general practice is somewhat sparse, with concern that courses may be longer than needed. There is potential to reduce antibiotic use by patients presenting in general practice with urinary tract infections (UTIs) by advising them to stop antibiotics when they feel better. The aim of this study was to explore the views of general practice clinicians and patients with recent experience of UTI about potentially giving/receiving such advice, including its acceptability, and what that advice should involve.

Approach

This was an exploratory qualitative study using remote interviews and focus-groups. We recruited clinicians (prescribers) working in NHS general practice through professional networks and research team contacts; we purposefully sampled them to include clinicians in different roles. We recruited patients through online advertisements and social media; we purposefully sampled them to include a mix of people with different ages, genders, and whether they had one-off or recurrent UTIs. Interviews and focus groups were recorded and transcribed. The data was analysed using a thematic analysis.

Findings

To date, eight clinicians and 15 patients participated. The recruitment and analyses are ongoing. Preliminary findings suggest that both clinicians and patients had multiple concerns related to implementing advice to stop antibiotics when feeling better, especially related to short courses; e.g. resistance to untreated bacteria, symptoms recurring, accumulating/wasting antibiotics. Clinicians and patients also wanted to know the evidence for the impact/consequences of stopping antibiotic courses early. Clinicians perceived a potential positive impact of such advice on making decisions tailored to individual patients and empowering patients to make their own decisions.

Consequences

Clinicians' and patients' views seemed ambiguous, but rather negative, when considering a hypothetical advice to stop antibiotics when feeling better. If clinical evidence supports this approach, it will be important to address clinicians' and patients' concerns about it, and develop approaches to effectively and safely provide such advice.

Elizabeth Bradshaw - Bristol, North Somerset and South Gloucestershire (BNSSG) Primary Care Training Hub and Connexus Primary Care Network.

The Current State of Play. Self-reported learning and supervision needs of independently employed musculoskeletal first contact practitioners (MSK FCPs) within a health-care system.

Kerri Magnus, BNSSG Primary Care Training Hub, Avon Local Medical Council and The Advanced Clinical Practice Forum.

Problem

Within recent years, there has been an exponential growth in the employment of physiotherapists as first contact practitioners within primary care, particularly with the creation of Additional Role Reimbursement Scheme (ARRS) by NHS England (NHSE). In recognition of the widening of scope of practice beyond what would be expected within more traditional physiotherapy, Health Education England (HEE) created the Roadmap to Practice, a document laying out clear expectations regarding competency and supervision for MSK FCPs. However, application of the Roadmap requires a certain shift in culture around supervision and development of non-medical staff within primary care. Full implementation of the recommendations of the Roadmap has proved a challenge in many settings.

Approach

Electronic questionnaires were sent to all known independently employed MSK FCPs within one healthcare system. Participants were allowed to contribute anonymously if they wished to. Questionnaires were sent as part of the process of establishing a Community of Practice of MSK FCPs within the healthcare system, led by a Physiotherapy Profession Lead at a Primary Care Training Hub. Two separate questionnaires were sent on the following three topics; Scoping learning and development needs and Supervision.

Findings

Twelve responses were received from the scoping questionnaire and six regarding supervision. FCPs largely identified their main learning needs to be around the more advanced or extended clinical skills such as training in giving joint injections, non-medical prescribing and competencies to enable requesting and interpreting of radiology investigations and blood tests. FCPs also identified a learning need around research, audit and the leadership and management pillar of advanced practice. When asked regarding supervision and what FCPs were wanting or needing their employer to provide, a repeated response was that more protected time was needed for focussed supervision. A small number of respondents reported that this was already in place but a great majority raised this as an ongoing concern. One participant also raised a worry about how ongoing supervision might look once the formal Roadmap was completed as this mandates set time to enable sign off.

Consequences

Work as an FCP in primary care presents opportunities for physiotherapists to be able to develop new skills and competencies beyond what would often have been present in more traditional physiotherapy settings. However, this development requires dedicated time and supervision to ensure safe practice and adequate governance. Primary Care Networks need to adapt to provide this support. These results suggest that whilst some areas of good practice exist, many FCPs perceive there to be many unresolved issues regarding their learning needs and supervision.

Lauren Bridewell - University of Southampton

Patient Reported Outcome Measures For Monitoring Primary Care Patients With Depression: A Qualitative Study

Rachel Dewar-Haggart, Riya Tiwari, Lien Bui, Emilia Trapasso, Tasneem Patel, Tony Kendrick

Problem

The prevalence of depression in the UK is increasing and has exceeded the worldwide average. As a result it's predicted that the annual cost of depression will be £12.2 billion by 2026. One potential way of addressing this is through the use of patient reported outcome measures (PROMs), in particular the PHQ-9 which is a symptom questionnaire and low-cost intervention. The aim of this qualitative study is to understand patient and practitioner perspectives on using the PHQ-9.

Approach

This qualitative study is a student project and is running alongside the PROMDEP randomised controlled trial. The participants were selected using purposive sampling from those partaking in the RCT and were invited to take part in a qualitative interview to explore their experience and perspectives. The interviews were semi-structured with the use of a topic guide and the interview transcripts were analysed using inductive thematic analysis.

Findings

Analysis of eleven patient transcripts identified four themes and ten subthemes. Of these, two themes were explored: 'Patient Perception of the PHQ-9' and 'The use of the PHQ-9 in the treatment of depression'. These identified that most patients found the PHQ-9 simple to understand and complete; and gave them understanding and a sense of control over their depression. However, sometimes this could be an overwhelming experience. The analysis of ten practitioner transcripts identified four themes and eight subthemes. Of these, three themes were explored: 'The use of the PHQ-9 in future practice', 'Practitioner perception of the PHQ-9' and 'Normal practice'. Practitioners discussed how the PHQ-9 should be administered on an individual basis and the challenges of finding the time to administer the PHQ-9 during consultations. Whilst the PHQ-9 scores facilitated making treatment decisions, practitioners felt their own clinical judgement to be of greater importance.

Consequences

The findings from this qualitative study will be important in explaining the findings of the RCT around the effectiveness of the use of PROMs in primary care. While patients and practitioners value the use of the PHQ-9 in consultations, further consideration is required to understand how the use of the PHQ-9 can be successfully implemented this into general practice.

Helen Atherton - University of Warwick

Facilitating access to online NHS primary care services a focussed ethnography

John Campbell, Jennifer Newbould, Stephanie Stockwell, Bethan Treadgold, Helen Atherton

Problem

Policy makers in England have advocated for the adoption of online services in recent years. Some primary care online services, including online appointment booking, ordering repeat prescriptions and accessing medical records have been widely available for the last 5 years, however, take up is variable. The Covid-19 pandemic has seen practices encourage the use of online services, but this raises questions about the ability of patients to engage with these services and the possibility of exacerbating inequalities. One way to ameliorate this is to facilitate the use of online services.

Approach

Embedded in a wider mixed methods study, we have conducted focussed ethnographic case studies that seek to understand in-depth and from the perspective of practice staff and patients/carers the potential benefits and challenges associated with different models of digital facilitation. We are collecting data through non-participant observation, semi-structured interviews, and secondary analysis of relevant documentation. Working in three regions of England, we have recruited 8 case study sites that demonstrated varying levels of digital facilitation. The practices were also selected to represent differing practice characteristics and practice population demographics.

Findings

Data collection is currently ongoing. We have been able to identify differences in approach to digital facilitation between practices. Early results indicate clear differences between practices in their approach to facilitation and staff identify a lack of training as an issue that is holding them back from providing more facilitation. Patients identify where they would like more support and where they are satisfied with the practice's current approaches to access.

Consequences

The case study findings will enable us to highlight important barriers and facilitators to digital facilitation. These findings will enable us to recommend ways to develop and implement promising approaches to digital facilitation. Emergent findings already indicate changes that practices could adopt that would enable them to provide more targeted digital facilitation.

Dr Jonathan Chan - Population Health Sciences Institute, Bristol Medical School, University of Bristol. Cabot Institute for the Environment, School of Geographical Sciences, University of Bristol. Academic Unit of Primary Care, Population Sciences and Medical Education, F

Do weather changes affect eczema in a UK cohort of children with eczema?

Dr Stephanie MacNeill, Dr Beth Stuart, Dr Eunice Lo, Amanda Roberts, Prof Dann Mitchell, Prof Matthew Ridd.

Problem

Eczema is a long-term inflammatory dry and itchy skin condition affecting roughly 20% of children. Eczema symptoms wax and wane, with different 'triggers' causing flares. While patients commonly report that temperature changes (cold and hot weather) make their eczema worse, previous studies have found mixed results and show a wide variability in disease response to changes in weather. Limitations included relatively small cohorts, lack of validated outcome measures and few studies conducted in the UKs temperate climate.

Approach

Aims: To explore the relationship between changes in temperature and eczema symptoms, characterising patients with flares triggered by weather. Design: Retrospective cohort study of 550 children with eczema (mild - severe, aged 6 months – 12 years), combined with weather data from the period Jan 2018 - Nov 2020. Exposure: Hot and cold weeks derived from mean weekly dry bulb temperature obtained from weather station dataset HadISD. Outcomes: Eczema flare defined by ≥3 change in Patient Oriented Eczema Measure (POEM). Analysis: Generalised linear mixed model analysis. Lag effects will also be explored. Further subgroup analysis by eczema severity and type of emollient used. Statistical software: STATA v17.

Findings

The cohort comprises 54% boys/46% girls. Categorised (POEM) eczema at baseline is: 7% clear/almost clear eczema, 34% Mild, 48% moderate, 11% severe. Max weekly average temp reached 25.97oC, Min temp reached -2.16oC. Plot of average POEM score against time indicates seasonal variation, with worsening eczema in winter months and improvement in warmer months. Further analysis is on-going and findings will be presented at the meeting.

Consequences

Substantiating the link between changes in the temperature, and those most affected, will have several benefits. It could help inform individual action plans and advice given to patients; weather forecast-based warnings could help patients step-up treatment in advance of potential flares; and subgroup analysis may identify whether different types of emollient offer better protection e.g thick ointments in winter and thin lotions for summer. (oral presentation preferred but poster also suitable if not accepted for oral presentation)

Joanne Clarke, Pharmacy Lead – BNSSG Training Hub - BNSSG Training Hub

Establishing a baseline of learning & development of pharmacy professionals in general practice within Bristol, North Somerset and South Gloucestershire (BNSSG).

N/A

Problem

The number of pharmacists and pharmacy technicians working within general practice has significantly increased with the introduction of the 'Additional Roles Reimbursement Scheme' (ARRS). Whilst there is an accredited learning pathway for those employed under ARRS, it is not clear what additional development the whole local workforce needed both immediately and into the future.

Approach

An anonymous questionnaire was distributed to all members of the pharmacy workforce working in GP practices or Primary Care Networks (PCN) across BNSSG (119 pharmacists and 36 pharmacy technicians). The tool used a mixture of qualitative and quantitative questions to investigate existing learning needs, current programmes of study and the use of competency frameworks to support learning. In addition, the intervention investigated whether respondents used 'communities of practice' to support their learning and what future networks may be required.

Findings

There was a 25% response rate (n=39) which included 29 pharmacists (24%) and 10 pharmacy technicians (28%). 15 respondents were either on the accredited pathway or had completed it (38%) and of the pharmacists, 20 were registered prescribers (69%). 21% (n=8) of respondents were using a framework to evidence competencies. Career aspirations included becoming Advanced Clinical Practitioners (ACP), Consultant Pharmacists or Partners in their practice. 30 respondents belong to one or more network groups (81%) but some were not involved in any. It was also noted that 73% (n=28) of the respondents supported the development of more communities of practice although respondents suggested the purpose should be clear and the impact on work-life balance considered.

Consequences

The pharmacy workforce in general practice in BNSSG requires more support for career development. There must be a range of opportunities available to meet local needs in terms of learning & development or 'communities of practice'. Suggested actions to support teams include information to practice management on learning & development opportunities, availability of and access to funding as well as information on the different frameworks used to demonstrate competence. Work is underway to enhance the communities of practice in the local area which will support the learning and development of the workforce leading to better patient care.

Kiana K Collins - University of Oxford

Adequacy of clinical guideline recommendations for patients with low-risk cancer managed with monitoring: Systematic review

Nia Roberts, Claire Friedmann Smith, Jason L Oke and Brian D Nicholson

Problem

To reduce overtreatment, an increasing proportion of patients with cancers deemed low-risk are managed with monitoring. While this reduces potentially unnecessary treatment and associated adverse events, patients should be monitored with the correct tests at the correct intervals to ensure that cancer progression is detected in a timely way to allow the initiation of treatment with curative intent. Currently, cancer monitoring guidelines suggest periodic testing to monitor for disease progression in secondary and/or primary care. With clear evidence-based guidelines, low-risk cancers could be monitored in primary care in a similar way to other chronic conditions.

Approach

We are conducting a systematic review of clinical guidelines on monitoring patients with low-risk cancer. The search will be restricted to guidelines written in English and published or updated anytime in the last 10 years. This review aims to determine whether the monitoring guidelines for patients with low-risk cancer clearly define low-risk cancer, recommend which tests to use, when to use them, and what thresholds trigger further intervention or treatment. We will take into account the quality of the evidence underpinning each recommendation, the setting in which the research was undertaken, and the cancer site being monitored.

Findings

This review is underway and findings will be presented at the conference. Anticipated findings are that the tests recommended for use when monitoring patients with low-risk cancer will be consistent across guidelines and supported by robust evidence. The evidence underpinning recommendations for monitoring intervals and thresholds for initiating treatment with curative intent may be less robust with monitoring decisions often reliant on the discretion of the clinician. We anticipate that most monitoring studies will have been conducted in secondary care. However, if the guidelines were clear and consistent, some cancer sites could be monitored in primary care.

Consequences

By conducting this review we will understand the extent to which current monitoring guidelines for patients with low-risk cancers are evidence-based. By identifying gaps in the evidence base we will identify priorities for future research.

Jemima Cooper - Early Career Researcher - University of Bath

Understanding healthcare professionals' physical activity promotion behaviours when treating individuals with depression in primary care: a systematic review

Jeffrey Lambert Fiona Gillison Georgina Wort - Early Career Researcher

Problem

Depression is a common mental health disorder which is mainly managed in primary care. Physical activity (PA) has been shown to reduce symptoms in people with depression, and is recommended by NICE. However, despite the evidence-based benefits of physical activity, many healthcare professionals (HCPs) do not discuss physical activity with patients during consultations. Given how integral HCPs are in the use of PA for the management of depression, we need to further understand their PA promotion behaviours, and identify the barriers and facilitators they face.

Approach

A systematic literature search of databases was conducted to identify articles that reported qualitative and/or quantitative data on (1) HCPs working with individuals with depression, but not exclusively, and (2) HCPs barriers and/or facilitators to PA promotion/treatment for depression. This included knowledge, perceptions, behaviours and views of HCPs. Data were extracted and thematically analysed using the Theoretical Domains Framework (TDF).

Findings

From 10,004 articles identified, 24 met the inclusion criteria for this review. Barriers and facilitators were identified and mapped to the TDF domains, with more barriers than facilitators found. Common barriers across multiple studies included a lack of education or training, lack of infrastructure and low patient motivation. In contrast, facilitators differed across studies, and included HCPs having knowledge of the biochemical processes of how PA affects mental health, and being able to offer a non-pharmacological treatment preferred by patients. HCPs perceived efficacy of PA in treating depression varied across studies, acting as both a barrier and facilitator, however many HCPs did indicate that they would advise, discuss, or recommend PA to patients with depression.

Consequences

Despite depression being the most common mental disorder, no previous work has systematically reviewed HCPs PA promotion behaviours specifically for people with depression. This review presents a range of barriers and facilitators that could be targeted to increase HCP PA promotion behaviour for people with depression. Increasing our knowledge and understanding of HCPs PA promotion behaviours and the barriers and facilitators they face may also help to inform more targeted interventions for HCPs working with this sub-population of mental illness.

Rosina Cross - Primary Care Research Group, College of Medicine and Health, University of Exeter

Recruitment and retention of staff in rural dispensing practice

Sinead TJ McDonagh, Emma Cockcroft, Malcolm Turner, Matthew Isom, Robert Lambourn, John L Campbell, Christopher E Clark

Problem

General Practice (GP) surgeries in rural areas often struggle to employ and retain healthcare professionals and other members of the multidisciplinary primary care team. Existing research into the problems of rural recruitment and retention is limited, and usually focussed on doctors. Migration of younger people from rural areas, high employment rates and absence of rural proofing in workforce planning may be important factors. A persistent shortage of appropriately qualified rural staff may affect quality of care and patient experience. Small rural practices rely, in part, on income from dispensing medications; little is known about how maintaining dispensing services contributes to recruitment and retention of staff. This study aims to understand the barriers and facilitators to working and remaining in rural dispensing practices, and to explore how the primary care team value dispensing services.

Approach

We undertook semi-structured interviews with multidisciplinary team members of rural dispensing practices across England. Interviews were audio-recorded, transcribed and anonymised. Framework analysis is being conducted using Nvivo 12. Full findings will be presented at the conference.

Findings

To date, we have recruited 18 of a planned 20 staff members from 13 rural dispensing practices across England. Five GPs, 2 practice nurses, 1 healthcare assistant, 7 administrative staff and 3 dispensers have been interviewed; some of these are employed in multiple roles. Several interconnected factors impacting both recruitment and retention of staff to rural dispensing practice have been identified. Personal and professional reasons for taking up a role in a rural dispensing practice included perceived career autonomy and development opportunities, and preference for working and living in a rural setting. Key factors impacting retention of staff included revenue generated by dispensing, opportunities for staff development, job satisfaction and the positive work environment. Perceived challenges to retention were travel difficulties, balancing the required skillset of dispensing with the wages available for the role, lack of skilled job applicants and negative perceptions of rural primary care practice.

Consequences

The findings from this study can inform national policy and practice with the aim of improving the understanding of the challenges of working in rural dispensing primary care.

Samuel Dalton - Primary Care Research Centre, University of Southampton University of Oxford University of Manchester University of Exeter

The effectiveness of vaccinations for prevention of acute respiratory infections in care homes: a systematic review of randomised controlled trials

Yousaf U, Beth Stuart, Annette Pluddemann, Antonina Santalova, Deepthi Lavu, Maria Panagioti, Michael Moore, Merlin Willcox

Problem

The COVID-19 Pandemic has highlighted the vulnerability of care home residents to respiratory infections. As they live in a closed environment, infection prevention is vital in reducing hospitalisations and illness. Vaccinations have the potential to prevent transmission of respiratory pathogens in care homes.

Approach

Aim: To assess the effectiveness of vaccinations for the prevention of acute respiratory infections within care homes. Approach: Medline, Embase, Cinahl and Cochrane were searched from inception to October 2021 for randomised controlled trials (RCTs) of vaccinations for prevention of acute respiratory infections in care homes. Titles and abstracts of all papers were screened by two reviewers and any clearly irrelevant papers were excluded. Full text screening was conducted independently. Data was extracted, identifying odds ratios and forest plots were made where applicable.

Findings

Of 3108 titles, 9 were suitable for inclusion. Six RCTs evaluated influenza vaccination. Vaccination of staff reduced incidence of influenza-like illnesses in care home residents (OR 0.69, 95% CI 0.55-0.88). One RCT demonstrated that intranasal immunization with live attenuated influenza A virus vaccine (in addition to parenteral trivalent inactivated influenza vaccine) reduced incidence of influenza-like illnesses (protective efficacy, 65.0%; 95% CI 17- 86%). Three RCTs comparing adjuvanted with non-adjuvanted influenza vaccinations of residents found no significant difference between these two types of vaccine in reducing incidence of hospitalisation (OR 0.87, 95% CI 0.55-1.18). One trial found no effect of an influenza vaccination booster given to residents, but this was in a year with low levels of influenza. Three RCTs evaluated vaccines against bacterial pathogens. Two RCTs of pneumococcal vaccines showed that they significantly reduced incidence of all-cause pneumonia. A multi-component oral vaccine (containing extracts of 8 bacterial pathogens) reduced incidence of acute lower respiratory infections in nursing home residents with chronic bronchitis by 28% ($P<0.05$).

Consequences

Intranasal live attenuated influenza vaccine for care home residents provides additional protection compared to parenteral influenza vaccine alone. Vaccinating staff against influenza reduced incidence of influenza-like illness in residents. Pneumococcal vaccine is effective at preventing pneumonia, and an oral vaccine reduced the incidence of acute exacerbations in residents with chronic bronchitis.

Dr Rachel Dewar-Haggart - Primary Care Research Centre, University of Southampton

Exploring beliefs, attitudes, and behavioural intentions towards long-term antidepressant use in the management of people with depression: a mixed-methods study

Prof Tony Kendrick, Dr Ingrid Muller, Dr Felicity Bishop, Dr Adam Geraghty

Problem

Over the last two decades, antidepressant prescribing in the UK has increased considerably. The rate of antidepressant prescribing increased from 15.8% to 16.6% between 2015 and 2018, with 7.3 million people prescribed antidepressants in 2017/18, at an annual cost of approximately £266 million. Evidence suggests that rise in the number of antidepressant prescriptions is due to patients staying on treatment for longer. While between a third to a half of patients may no longer be clinically indicated to continue antidepressant treatment, some are prepared to do so due to a fear of relapse or withdrawal symptoms during the discontinuation process. My PhD research aimed to explore beliefs, attitudes, and behavioural intentions towards long-term antidepressant use in the management of people with depression in primary care.

Approach

My PhD aimed to explore patients' beliefs, attitudes, and behavioural intentions towards long-term depression management in primary care, focusing on long-term antidepressant use. A critical interpretive synthesis found that beliefs and attitudes towards depression and antidepressant use influenced patients' decisions to stop or continue long-term antidepressant treatment. The findings from the synthesis were considered along with existing theoretical models of health behaviour to develop a questionnaire to measure patients' beliefs, attitudes, and behavioural intentions towards long-term antidepressant use. A sample of 10 participants took part in cognitive interviews to test the understanding and acceptability of the questionnaire before its use in a mixed methods study. Two hundred and seventy-seven participants took part in The Attitudes and Preferences of People regarding Long-term Antidepressant Use for Depression (APPLAUD) Study, and 16 participants took part in the nested qualitative interview study. Multiple regression analyses were conducted to determine which factors predicted intentions to stop or continue treatment, and a reflexive thematic analysis was used to analyse the qualitative interviews. Finally, findings from the questionnaire study and interviews were interpreted together using a complementarity approach.

Findings

The findings showed that participants' beliefs and attitudes towards depression and long-term antidepressant use predicted intentions to start to come off antidepressants; however, most participants had little to no intention to stop treatment in the next six months. The qualitative findings showed that participants' understanding of depression and long-term antidepressant use was multi-factorial and complex. Uncertainty around the necessity of antidepressants, the process of antidepressant discontinuation, and concerns around relapse and withdrawal were factors that participants considered when asked about their intentions to stop taking antidepressants. Furthermore, participants rarely attended antidepressant review consultations with their GP, which meant little opportunity for conversations around potential antidepressant discontinuation.

Consequences

As uncertainty is a concept within patients' representations and understanding of the role of antidepressants in managing depression, having more frequent review consultations with the GP may be crucial in discussing beliefs around the necessity of antidepressants, and in turn, facilitate conversations around safe and gradual antidepressant discontinuation.

Dr Molly Dineen - University of Exeter College of Medicine and Health, Exeter, UK and St Leonard's Practice, Exeter, UK

Family history recording in UK general practice: The lIFeLONG study

Dr Kate Sidaway-Lee, Sir Denis Pereira Gray and Professor Philip H Evans

Problem

In order to integrate genomic medicine into routine patient care and stratify personal risk, it is increasingly important to record family history (FH) information in general/family practice records. This is true for classic genetic disease as well as multifactorial conditions. Research suggests that FH recording is currently inadequate.

Approach

The aim was to provide an up-to-date analysis of the frequency, quality and accuracy of FH recording in UK general/family practice. This was an exploratory study, based at St Leonard's Practice, Exeter – a suburban UK general/family practice. Selected adult patients registered for over one year were contacted by post and asked to complete a written FH questionnaire. The reported information was compared to the patients' electronic medical record (EMR). Each EMR was assessed for its frequency (how often information was recorded), quality (the level of detail included) and accuracy (how closely the information matched the patient report) of FH recording.

Findings

241 patients were approached; 65 (27.0%) responded and 62 (25.7%) were eligible to participate. 43 (69.4%) EMRs contained FH information. The most commonly recorded conditions were bowel cancer, breast cancer, diabetes and heart disease. The mean quality score was 3.64 (out of 5). There was little negative recording. 83.2% of patient-reported FH information was inaccurately recorded or missing from the EMRs.

Consequences

FH information in general/family practice records should be better prepared for the genomic era. Whilst some conditions are well-recorded, there is a need for more frequent, higher quality recording with greater accuracy, especially for multifactorial conditions.

Sharon Dixon - Nuffield Department of Primary Care Health Sciences, University of Oxford

The EMPOWER project: Exploring & Mapping PriOrities for Women's health technology, Equipment, kit, devices, and pRoducts

Gail Hayward, Abi McNiven, Philip Turner, Neda Taghinejadi, Katy Vincent, Krina Zondervan, George Edwards, Camilla Knox-Peebles

Problem

Research and development in the field of women's health has been historically under-prioritised and current policy seeks to address this. Women's health and well-being could be improved by having new or better 'technology' such as equipment, devices, products, tests, or kit for use by health care professionals and in living environments. However, there has been no research to establish which unmet needs are felt to be a priority for technology development by women and the clinicians who care for them.

Approach

Using an approach adapted from the James Lind Alliance, we have developed a priority setting partnership process to bring together women and clinicians views on un-met needs in women's healthcare – and their ideas about possible solutions or improvements. With a steering committee comprising primary and secondary care clinicians and PPIE advisers, we have co-developed surveys for women and clinicians, which are currently being distributed. We next plan to: 1. Hold 3-5 virtual PPI discussions in parallel to the surveys, sampling across health need, life-course experience, and background; 2. Then collate a longlist of potential un-met needs and potential solutions; 3. Check for existing technologies which could help and review the evidence for their benefit; 4. Engage clinician and PPI guidance in short-listing the priorities; and 5. Hold a partnership priority setting event with a wide range of clinicians and service users to develop a top-ten list of priority areas of un-met need.

Findings

We will present the findings of our surveys and focus groups and discuss our methodological learning. Our exploratory PPI and stakeholder discussions to date suggest a keen interest in this topic and demonstrate how this subject can be conceptualised broadly across women's health and throughout the life course. Areas of unmet need we have heard about thus far include improved devices to support: breastfeeding care; pregnancy and labour monitoring; affordable and environmentally sustainable menstrual care; dignified examination of women (including devices which could promote women's autonomy or self-examination); and equipment for prolapse care.

Consequences

This project represents an innovative approach to partnership priority setting for technology development.

Zoe Doran and Joseph Coombes (co-presenters) - University of Plymouth

Application of feasibility lessons during Covid-19 within an evaluation of a primary care based system of dementia care in the form of a specially trained dementia support worker

Richard Byng Tomasina Oh Hannah Wheat Lauren Weston Alex Gude Leanne Greene Sarah Griffiths Saqba Batool Baber Malik Paul Clarkson Rebecca Beresford Caroline Sutcliffe

Problem

Dementia-PersonAlised Care Team (D-PACT) is a five-year NIHR funded study that aims to develop and evaluate a system of dementia care based in primary care. This care is provided by a specially trained dementia support worker (DSW) based in GP practices. The first COVID-19 lockdown occurred during our feasibility phase – temporarily halting recruitment. We present how we rapidly responded by adapting our (i) recruitment processes and (ii) intervention delivery, to ensure D-PACT remained viable during and beyond COVID-19.

Approach

To inform adaptation of our recruitment processes and intervention design/ delivery for remote working we: • Conducted a pragmatic targeted literature review of remote recruitment and remote methods for intervention delivery; and • Collected data from multiple stakeholders; analyzing data using both thematic and realist methods.

Findings

Our novel 'embedded researcher model' provides a means to facilitate study recruitment from GP settings, with researchers serving as extended members of the primary care team. The procedure is multi-stepped and inclusive, reaching populations who are seldom heard, while reducing burden on primary care staff. Our person—centred 'capacity and consent' judgement process promotes and facilitates engagement from individuals wanting to take part, but for whom capacity to consent is uncertain. This procedure, applicable during both remote and in-person recruitment, provides clarity and transparency for researchers and personal consultees of prospective participants, about the consent and study participation process. Finally, our hybrid intervention delivery model utilises the advantages of both in-person and virtual/ remote means of support. This enhances the sustainability of the intervention; ensuring continuity of support, irrespective of external factors affecting in-person delivery. In addition, the hybrid model better enables adherence to participant preferences regarding where, how often, and with whom they would like support, further personalising the intervention.

Consequences

The COVID-19 pandemic provided us with a unique opportunity to consider alternative means of recruitment and intervention design/ delivery. The result is a more comprehensive, flexible, personalised study design that will be sustainable, replicable, and of greater value to study participants than originally planned.

Liz Down - University of Exeter

Comparison of blood test outcomes for cancer diagnosis in different ethnic groups – the EPIC study

Melissa Barlow, Tanimola Martins, Luke Mounce, Sam Merriel, Jessica Watson, Sarah Bailey

Problem

Incidence and survival rates for some cancer types differ between ethnic groups in the UK. For many of the blood tests used in primary care which can be used to indicate cancer risk, there is little evidence about their relative performance in patients of different ethnic groups.

Approach

This study will assess whether there are differences in blood test performance between patients of different ethnic groups, using data provided by Clinical Practice Research Datalink (CPRD) with linkage to other health care databases. Data includes routinely gathered primary care and secondary care records, and cancer registrations. Common blood tests that have a role in the assessment of cancer risk in primary care will be studied (platelet count, haemoglobin, mean cell volume, calcium, albumin, C-reactive protein, CA-125, and prostate specific antigen). We will use multi-level logistic regression, clustering patients by general practice, to assess if the predictive value of an abnormal test result varies across different ethnic groups. We will include other demographic variables in the model, and repeat the analysis for each test of interest.

Findings

Our cohort consists of 1.4 million patients registered at GP practices across England between 2010 and 2015, who have a recorded ethnicity code, a record of blood tests carried out, and who were aged 40 or over at the start of the study. Further results will be available at the conference.

Consequences

Evidence of differences in the association between blood tests and future cancer diagnosis between patients of different ethnic groups will need careful interpretation. Any observed differences will form the basis for further research, with the aim of contributing to evidence-based guidance for clinicians on how best to interpret blood test results.

Georgette Eaton - University of Oxford

Understanding the role of paramedics in primary care

Dr Geoff Wong Dr Stephanie Tierney Nia Roberts Dr Veronika Williams Prof. Kamal R. Mahtani

Problem

Since 2002, paramedics have been working in primary care within the United Kingdom (UK), a transition also mirrored within Australia, Canada and the USA. Recent recommendations to improve UK NHS workforce capacities has led to a major push to increase the numbers of paramedics recruited into primary care. However, gaps exist in the evidence base regarding how and why these changes would work, for whom, in what context and to what extent. To understand the ways in which paramedics impact (or not) the primary care workforce, we conducted a realist review.

Approach

A realist approach aims to provide causal explanations through the generation and articulation of contexts, mechanisms, and outcomes. Our search of electronic databases was supplemented with Google and citation checking to locate grey literature including news items and workforce reports. Included documents were from the UK, Australia, Canada and the Americas - countries within which the paramedic role within primary care is well established.

Findings

Our searches resulted in 205 included documents, from which data were extracted to produce context-mechanism-outcome configurations (CMOCs) within a final programme theory. Our results outline that paramedics are more likely to be effective in contributing to primary care workforces when they are supported to expand their existing role through formal education and clinical supervision. We also found that unless paramedics were fully integrated into primary care services, they did not experience the socialisation needed to build trusting relationships with patients or physicians. Indeed, for patients to accept paramedics in primary care, their role and its implications for their care should be outlined by a trusted source.

Consequences

Our realist review highlights the complexity surrounding the introduction of paramedics into primary care roles. As well as offering an insight into understanding the paramedic professional identity, we also discuss the range of expectations this professional group will face in the transition to primary care. These expectations come from patients, General Practitioners (Family Physicians) and paramedics themselves. This review is the first to offer insight into understanding the impact paramedics may have on the primary care workforce and shaping how they might come together to be optimally deployed.

George Edwards - Nuffield Department of Primary Care Health Sciences

What is the diagnostic accuracy of novel urine biomarkers for urinary tract infection?

Anna Seeley Adam Carter Maia Patrick-Smith Elizabeth Cross Kathryn Hughes Ann Van den Bruel Martin Llewelyn Jan Y Verbakel Gail N Hayward

Problem

Urinary tract infection (UTI) is a common problem in primary care. Current diagnosis includes urinary dipstick and urine culture, yet both methods have modest diagnostic accuracy, and cannot support decision making in patient populations with high prevalence of asymptomatic bacteriuria. We performed a systematic review of the literature to: describe the range of novel urine biomarkers which has been evaluated as potential diagnostic markers for UTI, and describe the current evidence base for urine biomarkers which could distinguish between asymptomatic bacteriuria and UTI.

Approach

We searched MEDLINE, EMBASE, Cinahl, Web of Science and the Cochrane database of systematic reviews for studies of novel biomarkers for the diagnosis of UTI. We excluded studies assessing the diagnostic accuracy of urine dipstick as this is not novel. We included studies of adult patients (>15 years) with a suspected or confirmed urinary tract infection using microscopy and culture as the reference standard. We excluded studies using clinical signs and symptoms, or urine dipstick only as a reference standard. QA was performed using QUADAS-2.

Findings

We included 37 studies of 3984 adults measuring 72 biomarkers. Study quality was limited by case-control design and study size; only 4 included studies were prospective cohorts. IL-6 and IL-8 were the most commonly studied biomarkers. We found plausible evidence to suggest that IL-8, GRO-a, sTNF-1, sTNF-2, uNGAL, and MCR may benefit from more rigorous evaluation of their potential diagnostic value for UTI.

Consequences

There is insufficient evidence to recommend the use of any biomarker for UTI diagnosis. High levels of study heterogeneity make comparison difficult. IL-8, MCR, GRO-a, sTNF-1, sTNF-2, and uNGAL are appropriate candidate for future study. Few of these studies were conducted in a primary care population. Diagnostic accuracy and utility in these settings may be different.

Dr Julian Elston (UoP) and Todd Chenore, Devon CCG - Community and Primary Care Research Group (CPCRG) Peninsula Medical School University of Plymouth

Implementing Population Health Management programme in Devon to support primary care and Local Care Partnerships to delivery more person-centred services and address health inequalities? A Researcher in Residence study

Dr Felix Gradinger (UoP) Prof. Richard Byng (UoP) Prof. Sheena Asthana (UoP)

Problem

Integrated Care Systems (ICSs) were set up to plan health and care services collaboratively in order to better meet the needs of their population and to reduce health inequalities. Integrated datasets that link primarily primary and secondary health and social care data are key to achieving these objectives. These offer service commissioners and providers the opportunity to understand the health of their patients and communities in a more holistic way, and to develop and shape more personalised services or what is called Population Health Management (PHM). As Devon ICS rolls out its PHM programme over the next two years this research will investigate how best to bring together and support PHM analytic capacity and clinical expertise in PCNs to identify target populations, understand integrated datasets and interpret their meaning as well as how to develop person-centred innovations and changes in clinical pathways that can demonstrate benefit?

Approach

Researchers-in-Residence (RiRs) embedded within Devon ICS system will undertake a mixed-methods Developmental Evaluation of the PHM programme, collecting and analysing real-time data to directly shape the programme's design, development and implementation. RiRs will use a variety of qualitative and quantitative primary and secondary data collection methods – observations of meetings, co-designed workshops, interviews, surveys, documents/reports and academic literature – to conduct an on-going, iterative analysis that will feed a formative evaluation of the factors that support or hinder PHM at different levels of the system. The RiRs will also map the number of people and patients engaged in PHM projects, their outcomes, experiences and economic benefits which, in turn, will inform a summative evaluation. The RiRs will initially conducted a multiple case study comparison of the five PCNs that participated in the PHM pilot during 2021. They will then expand their focus to work with other PCNS, LCPs and system partners, sharing good practice, supporting evaluations and linking projects to build system capacity and capacity in PHM.

Findings

The RiRs will have worked closely with Devon ICS, 15 PCNs and 4 LCPs to improve the programme's impact, data collection and evaluation of PHM innovations, and to identify high-quality innovations that can inform strategic planning and the development of future research funding bids. More systemic investment in data tools, training and action learning sets is required to build system capacity and capability and create a PCN culture orientated towards PHM. A number of PCNs case studies illustrate how PHM has potential to improve health, reduce inequalities and make system savings.

Consequences

Embedded researchers can help strengthen implementation projects that are seeking to bring about system change under conditions of complexity and uncertainty. Creating a culture PCN orientated towards PHM will require continued investment and training in areas identify by this research.

Sharon Dixon - Centre for Academic Primary Care, University of Bristol

PRECODE: Primary care response to domestic violence and abuse in the Covid-19 pandemic

Sharon Dixon (University of Oxford) Anna Dowrick (University of Oxford) Eszter Szilassy (University of Bristol) Jasmina Panovska-Griffiths (University of Oxford) Medina Johnson (IRISi) Anna De Simoni (Queen Mary University of London) Vari Wileman

Problem

Domestic violence and abuse (DVA) increased during the COVID-19 pandemic. With the imposition of lockdown measures, usual routes to support and safety for people experiencing DVA were shut down or limited. In parallel, the pandemic required GP practices to rapidly adapt to different ways of delivering care, with the majority of consultations shifting to remote consulting. Primary health care professionals play a vital role in responding to patients affected by DVA and linking them to specialist DVA services. The necessary transition to remote consulting has uncovered a knowledge gap about how GPs can safely ask about abuse, respond appropriately, and provide support, which this study seeks to address.

Approach

Using a rapid mixed-method approach (Interrupted time series and non-linear regression on time series of referrals to DVA services from routinely collected practice level data in the UK; Interview- and observation-based qualitative study), the study explores the impact of the pandemic on DVA referral and patient support from primary care.

Findings

Referrals to DVA services were reduced during the first national lockdown in 2020 compared to time periods before and after (27% CI=(21%, 34%), and there were 19% fewer referrals compared to an equivalent period in the preceding year. These findings were compared with school holidays, another period of social closure, and during this time referrals for women experiencing DVA were also reduced (2019 pre-pandemic school holiday 44%, 95% CI=(32%, 54%). Analysis of qualitative interviews with general practice professionals and service providers highlight the challenges identified by practices and adaptations they have made in transitioning to remote DVA training, patient referral and support. Key considerations included achieving a safe space for disclosure, acknowledging that patients may have limited safe periods to speak. Adaptations included having a low threshold for clinicians to arrange a face-to-face appointment if there were DVA concerns.

Consequences

These findings demonstrate a need to ensure adequate access and support for those affected by DVA during potential future periods of lockdown, with relevance to other periods of social closure, such as school holidays.

Elizabeth Emsley - Centre for Academic Primary Care, University of Bristol

The transition to remote domestic violence training during the COVID-19 pandemic: lessons from primary care

Anna Dowrick (University of Oxford) Eszter Szilassy (University of Bristol) Sharon Dixon (University of Oxford) Anna De Simoni (Queen Mary University of London) Medina Johnson (IRISi) Gene Feder (University of Bristol) Chris Griffiths (Queen Mary

Problem

The primary care response to domestic violence and abuse (DVA) is vital in supporting patients and providing a crucial link to specialist services. During the COVID-19 pandemic, there has been a rise in DVA cases and at the same time, GPs have transitioned to remote consulting. Remote working has also extended to training and education. IRIS (Identification and Referral to Improve Safety) is an example of a programme which has transitioned to remote training. Training practice staff about DVA is a core component of the IRIS intervention, which aims to establish a referral pathway between primary care and DVA support services. We aim to understand the impact of remote DVA training in primary care, using the IRIS programme as a case study, as part of ongoing investigations of the primary care response to domestic violence and abuse in the COVID-19 pandemic (PRECODE).

Approach

We interviewed nine participants purposively sampled from NHS primary care including GPs and Practice Managers, as well as Advocate Educators who deliver IRIS DVA training. Verbatim transcripts of semi-structured interviews were analysed using framework analysis. We are also analysing observations of nine remote training sessions to understand the content, dynamics and delivery of training.

Findings

There are key emergent findings from our ongoing analysis. Remote training has improved access for GP staff wishing to attend remotely, however there have been challenges in training delivery, affecting engagement between the facilitator and attendees. This may impact the connectivity between primary care and DVA specialist services, for example in building relationships which strengthen patient referral pathways. We interpret these findings more broadly within the context of a challenging time, with GPs facing competing demands relating to the pandemic and uncertainty regarding future GP working models.

Consequences

The transition towards remote DVA training in primary care during the exceptional period of the COVID-19 pandemic, has implications for future training. There are opportunities and challenges, which may impact the relationship between General Practice and specialist DVA services. This has broader relevance for other specialist services providing training and education in primary care.

Emily Fletcher - University of Exeter Medical School

Workload and workflow implications associated with the use of electronic risk assessment tools used by health professionals in general practice: a scoping review

Associate Professor Gary Abel, Professor John Campbell, Dr Alex Burns, Dr Elizabeth Shephard, Dr Bianca Wiering, Dr Deepthi Lavu, Professor Willie Hamilton

Problem

Electronic risk assessment tools are increasingly available to assist GPs in their clinical decision making in relation to diagnosis and management of a range of health conditions. It is unclear whether the use of such tools has an impact on GP workload and workflow. This scoping review aimed to identify the available evidence on the use of electronic risk assessment tools by health professionals in general practice and their impact on workload and workflow.

Approach

A systematic scoping review was carried out using the Arksey and O'Malley methodological framework. The search strategy was developed iteratively, with three main aspects: general practice/primary care contexts, risk assessment/decision support tools, and workload-related factors. Three databases were searched, in 2019, updated in 2021, covering articles published since 2009: Medline(Ovid), HMIC(Ovid) and Web of Science(TR). Screening was completed by two reviewers, and data extracted from the identified articles was analysed.

Findings

The search resulted in 2,249 references, with 58 articles remaining after screening. Of these, 20 were US studies, with Australian and UK studies comprising just under a third (8 and 9 studies respectively). A further ten studies originated from Canada and the Netherlands, with smaller numbers from Europe and New Zealand. The studies all aimed to examine use of electronic tools and reported findings which included those related to impacts on aspects of workload, including consultation time (though this was often not the focus). Most studies were qualitative and exploratory in nature, reporting healthcare professionals' subjective perceptions of time as opposed to objectively-measured time spent using electronic tools and lengths of consultations. Others reported workload-related findings included impacts on workflow and dialogue with patients, and clinicians' experience of 'alert fatigue'.

Consequences

The published literature on the use of electronic risk assessment tools in general practice shows that limited efforts have focused on the quantitative impact of such tools on workload and workflow in consultations. The majority of studies reflected health professionals' perceptions that using such tools will involve additional time, workload and disruptions to workflow. Further research to provide objective, quantitative measurements of consultation lengths, would be useful to address whether these perceptions are justified.

Alisha Giby - University of Southampton

Long Covid symptom clusters and risk factors: an online questionnaire study

Prof Nick Francis, Dr Mark Lown, Dr Taeko Becque, Dr Beth Stuart, Dr Merlin Wilcox, Dr Nisreen Alwan, Prof Mike Moore, Prof Paul Little

Problem

Long Covid is a term used to describe persistent symptoms following COVID-19. It is estimated that over 1 million people are experiencing Long Covid in the UK. The mechanisms underlying this phenomenon are unclear, but it is thought to comprise a number of distinct syndromes. Understanding the clustering of symptoms and risk factors for developing Long Covid may help researchers identify effective management plans.

Approach

This study uses data collected from members of the public who took part in an online questionnaire about COVID-19. We used data on participants who reported a COVID-19 illness in a baseline questionnaire and completed a 3-month follow-up. In those who reported symptoms related to COVID-19 persisting for 3 months or more, we described symptom clustering using a correlation matrix and factor analysis. To identify predictors of Long Covid, we conducted a logistic regression analysis using demographics, comorbidities and characteristics of the initial infection as potential predictors.

Findings

1,144 participants had COVID-19 and Long Covid was reported in 389 (34.0%) of these. The most common ongoing symptoms were fatigue (70.4%), “brain fog” (59.4%) and dyspnoea (56.0%). Three clusters of symptoms were identified: general/respiratory, neurological/psychiatric and extra-respiratory. Self-reported predictors associated with Long Covid at univariable level were: female sex (odds ratio (OR) 1.44, 95% CI 1.08-1.93), age group 50-59 (OR 1.90, CI 1.22-2.95) compared to <30, being overweight (OR 1.45, CI 1.13-1.85), low socio-economic status compared to middle (OR 1.51, CI 1.07-2.12), number of comorbidities (OR for each additional comorbidity 1.16, CI 1.01-1.34), liver disease (OR 6.63, CI 1.81-24.24), and, during initial Covid illness, feeling more unwell (OR for each point increase 1.37, CI 1.29-1.45) or concerned (OR for each point increase 1.37, CI 1.30-1.44) on a scale of 0-10, having more symptoms (OR for each additional symptom 1.24, CI 1.18-1.29), and hospitalisation (OR 3.68, CI 1.93-7.00). Data analysis is ongoing and we will present further results at the conference.

Consequences

Our findings are consistent with previous research but also highlight some risk factors that have been less well described, such as liver disease. These findings may be helpful in predicting Long Covid and/or identifying useful management options.

Anna Gilbertson - Population Health Sciences, Bristol Medical School, University of Bristol

Which type of emollient? The development of an aid to share decision making in primary care for children with atopic eczema.

Hywel Williams, Miriam Santer, Ingrid Muller, Laura Howells, Amanda Roberts, Matthew Ridd

Problem

To develop a shared decision aid to support parents, older children, and healthcare providers to decide which type(s) of emollient (lotions, creams, gels, or ointments) might be suitable to treat atopic eczema in primary care.

Approach

Decision aid content was mainly based on the findings from the BEE (Best Emollients for Eczema) trial and nested qualitative study, which found similar effectiveness between the four types of emollients, but highlighted information needs and the importance of choice. Stakeholders, including healthcare professionals, public contributors, and Eczema Outreach Support were invited to comment by email and/or over video call on the content, format, application, and overall impression of drafts as the decision aid developed iteratively with graphic design input. A steering group (co-authors) oversaw the process and reviewed/commented on drafts and stakeholders' feedback.

Findings

Stakeholders, including 10 public contributors, Eczema Outreach Support and healthcare professionals (2 GPs, 4 dermatologists, 3 dermatology nurses, 1 pharmacist, 2 health visitors) commented at least once on four rounds of drafts. Whilst positive about the purpose of the decision aid, opinion varied between stakeholders about the format and accessibility of initial drafts, which included an "Option Grid" format. Suggestions such as streamlining the body of text, using lay terminology, and creating one large visual summary (rather than one for each of the four emollient types) were incorporated so subsequent drafts appeared less "busy". In terms of content, there was a tension between including only trial evidence versus wider evidence/clinical experiences; and information on how, as well as what, to use. There was consensus to include information relating to the safe and effective application of emollients as well as smaller graphics, emphasising when more than one type of emollient may be needed. A final version was approved by all stakeholders.

Consequences

A simple (two-sided, printable), yet informative, evidence-based decision aid has been produced in collaboration with stakeholders to accompany publication of BEE's findings. Evaluation is now required to establish whether its use will inform choice, optimise treatment, and reduce the costs of current 'trial and error' approaches.

Geraldine Goldsmith - Royal Devon and Exeter NHS Foundation Trust
University of Exeter

Adherence to physical rehabilitation delivered via tele-rehabilitation for people living with Multiple Sclerosis: a scoping review protocol

Jessica Bollen Jennifer Freeman Victoria Salmon Sarah Dean

Problem

Tele-rehabilitation delivery of rehabilitation for people with Multiple Sclerosis (pwMS) has increased in recent years, expedited by COVID-19 and the Department of Health's Long Term Plan to deliver a digital-first service. To make informed decisions about using tele-rehabilitation to prescribe exercise and physical activity (PA) interventions for pwMS, clinicians require evidenced information. As adherence is vital to the success of these programmes, the challenge in Primary Care is to empower pwMS to adhere to exercise and PA throughout their lifetime. This scoping review will provide an overview of the literature regarding physical rehabilitation delivered via tele-rehabilitation for pwMS with specific focus on adherence; use of behaviour change interventions; and experiences of pwMS and therapists.

Approach

A scoping review methodology underpinned by Arksey and O'Malley and Levac et al's frameworks will be used. The databases Medline (OvidSP), Embase (OvidSP), Cinahl (EBSCOhost), The Health Management Information Consortium Database, ProQuest Dissertations and Theses Global, Pedro, The Cochrane Central Register of Controlled Trials, US National Library of Medicine Registry of Clinical Trials, World Health Organisation International Clinical Trials Registry Platform portal, The Cochrane Database of Systematic Reviews, and Epistemonikos will be searched from 1998 to present day. To identify papers omitted from databases, conference websites will be searched. With the exception of study protocols, papers of any study design will be included. Papers reporting information regarding adherence to prescribed exercise and PA programmes for pwMS which have a therapeutic purpose and are delivered via tele-rehabilitation will be included. Information relating to adherence may comprise; methods of reporting adherence, adherence levels, investigation of pwMS' and therapists' experiences of adherence or discussions of adherence. A custom data extraction form will be used and quality assessment of studies will use Critical Appraisal Skills Programme checklists. Data analysis will involve categorisation to enable findings to be presented in both narrative and tabular format.

Findings

Early scoping searches have revealed that previous reviews have not specifically explored adherence to physical rehabilitation delivered via tele-rehabilitation. This scoping review will address this gap in the literature.

Consequences

The review will assist clinicians making decisions regarding tele-rehabilitation to deliver physical rehabilitation to pwMS.

Melanie Gruben, candidate, MSc in Psychological Science - University of Limerick

Lean on Me: proposing a model of stress-reduction for caregivers of mental illness through online support groups

Kristi Horner

Problem

In a 2020 CDC study, unpaid caregivers were found to be at the highest risk of suicidal ideation of all demographics, with 30% of unpaid caregivers considering suicide in the past 30 days. Caregivers often lack the time and money resources to seek individual counseling, and often need peer support particular to their experience. Caregivers of mental illness are especially vulnerable as they often face emotional distancing from friends and family as well as ideas of social stigma.

Approach

The rise of e-health in caregiver support groups is promising. It offers locational accessibility which both reaches rural caregivers and allows for a greater selection of psychological staff. We propose a cross-sectional, survey design study in collaboration with two United States support organizations for caregivers of mental illness. We hypothesize that regular online caregiver support group attendance will be correlated with lower scores on Cohen and Kamarck's 1994 Perceived Stress Scale. Secondly, we hypothesize that perceived social support (as measured on Moser's 2012 Medical Outcomes Study Social Support Survey) will be a mediator in the association between support group attendance and lower stress levels. Through these two collaborating organizations in the United States, we anticipate a sample size of approximately 150.

Findings

We expect the results to reveal that lower scores on a perceived stress scale correlate with caregiver support group attendance. We also expect that social support will serve as a mediating variable in this model. We do predict that effect sizes will be small to medium in size, as previous literature on caregiver support groups returned similar effect sizes.

Consequences

A growing body of empirical evidence for benefits of caregiver support groups will inform clinicians' recommendations for caregivers living with stress. While many similar studies have been conducted, this model examines specifically caregivers of mental illness and their relationships with stress as it relates to social support. Evidence supporting these affordable support tools may improve the lives of this underserved population.

Simon Hall - Centre for Academic Primary Care, University of Bristol

A Cleft In Time

N/A

Problem

Growing up with a cleft lip and/or palate, young people experience a childhood intertwined amongst the health-care system, with a diverse multidisciplinary team planning treatments for them from their first memories until adulthood. There remain misconceptions and lack of understanding about what a cleft entails and for these young people, many aspects of their journeys are hidden from those around them.

Approach

The medical arts project develops creative spaces for young people with and without a cleft, to foster interconnectedness and storytelling, with self-representation and the portrait in healthcare at the project's core. In collaboration with the South West Cleft Service, the Cleft Lip and Palate Association and Science Gallery London, the project bridges healthcare, the arts and public engagement to cultivate hands-on creative spaces offering an alternative discourse of facial difference, led by young participants constructing their own emotional understandings.

Findings

The project illustrates how the creative arts can be a powerful means of articulating experiences, creating connections, and in storytelling for young people shaping their sense of self. The project reflects upon how the creative arts within medicine and caregiving provide a language to articulate challenges of the human experience that can be intangible, transient, and emotive. In doing so, this ability of the arts to invite audiences to experience elements of life that are hidden or cannot easily be grasped, lends itself to helping health professionals and the public understand nuances of the patient experience.

Consequences

Outcomes of the long-term project continue to be fed back into service delivery for collaborating healthcare and charitable partners providing services for young people with a cleft. With the pandemic, the project evolves into fostering digital creative spaces and utilising new technologies in collaboration with new project partners to engage, inspire and uncover narratives in partnership with young people.

Janice Hoang - Exeter Q-Step Centre

Exploring stakeholders' perceptions of education and training pathways for GPs: an international qualitative study

Karen Mattick Vivienne Baumfield

Problem

New and effective approaches to educating and training general practitioners (GPs) are required due to a shortage of GPs and increasing societal demand for GP services. Three typologies of education and training pathways for GPs were developed previously through a scoping review ('Gatekeeper', 'Doctor of choice', and 'Team member'). This study aimed to achieve a deeper understanding of the three typologies and validate them by consulting stakeholders.

Approach

28 semi-structured interviews were conducted with trainers, trainees, medical educators, policy makers and patient representatives, from Vietnam, UK, and the USA, selected as countries meeting the descriptor of each reported typology. Data were transcribed and analysed thematically.

Findings

Three main themes emerged related to the typologies: (i) characteristics of training pathways, (ii) influencing factors, and (iii) stages of the training pathway. Training pathways were diverse and changed over time. Five influencing factors to GP training were identified: programme design, culturally and historically established structures, changing role of GPs, changing expectations of patients and society, and changing health needs. Three key stages of training pathways were determined with significant distinctions between the typologies.

Consequences

Therefore, the qualitative findings clarify: (1) diversity and complexity in education and training for GPs; (2) a strong connection between training pathways with practice settings and types of primary care provision; (3) that the dangers of 'borrowing' without considering varied contexts and the need to avoid thinking one-size-fits-all approach in designing and developing GP training programmes; (4) that barriers exist to the mobility of GPs between countries.

Charley Hobson-Merrett and Ben Jones - University of Plymouth (CHM) University of Exeter (BJ)

Effectiveness of collaborative care approaches for people with severe mental illness: A Cochrane systematic review

Bliss Gibbons, Claire Planner, Debra Richards, John Gibson, Siobhan Reilly

Problem

Many with severe mental illness (SMI) diagnoses are supported in primary care. Physical health or biopsychosocial needs are often unmet due to disjointed service provision. NHS policy supports improved working between primary and secondary care. Collaborative care is a potential tool to deliver better care. We aimed to review evidence regarding effectiveness of collaborative care compared to standard care for SMI in relation to quality of life, mental state, personal recovery and psychiatric admissions.

Approach

We searched the following trial registers: Cochrane Schizophrenia Group, Cochrane Common Mental Disorder Group, Cochrane Central Trials Study-Based Register for randomised controlled trials (RCTs) where the intervention was described as 'collaborative care', the control was standard care, and participants were 18+ and living in the community with a diagnosis of schizophrenia, bipolar or other psychosis. We also searched Ovid MEDLINE, Embase and PsycINFO, and contacted experts in the field. Screening, data extraction and certainty of evidence were dual assessed. Quality and certainty of evidence were assessed using Risk of Bias 2 and GRADE. For dichotomous data, we calculated the risk ratio and for continuous data we calculated standardised mean differences, presented alongside 95% confidence intervals. Random-effects meta-analyses were used due to substantial levels of heterogeneity across trials.

Findings

Eight RCTs (1139 participants) are included in the review. Most outcomes are of low or very low quality of evidence. There is little evidence to suggest that collaborative care improves quality of life, mental state, or the risk of being admitted to hospital, at 12 months; this evidence was of low to very-low quality. There is some high quality evidence of a reduction in the risk of psychiatric hospital admissions at two and three years; however this evidence originated from just one study.

Consequences

There is minimal evidence in this review that collaborative care is more effective than standard care. Confidence in these findings is extremely limited due to low quality of evidence; we would not recommend making clinical decisions on the basis of this review. More large, well-designed, conducted and reported trials are required before any robust, evidence based, clinical or policy decisions can be made.

Charley Hobson-Merrett - University of Plymouth

Realist process evaluation of the PARTNERS collaborative care intervention for people with diagnoses of severe mental illness

Frost Julia, Gwernan-Jones Ruth, Clark Michael, Denyer Rebecca, El Naggar Shaimaa, Gask Linda, Gibbons Bliss, Gibson John, Pinfold Vanessa, Reilly Siobhan T, Richards Debra, Saunders Angela, Smith Deb, Byng Richard

Problem

Many with severe mental illnesses (SMI) are supported predominately in primary care. Improved joint working between services is recommended by NHS policy. Collaborative care and recovery models are potential tools to deliver better care. PARTNERS is a collaborative care model which utilises recovery-based coaching evaluated in a randomised controlled trial. There is little evidence indicating how and why collaborative care might work for people with SMI. This presentation assesses delivery of the intervention compared to our conceptual model, evaluates factors affecting changes in practitioners, and further develops the underpinning programme theory.

Approach

In this realist process evaluation we interviewed practitioners (7 interviews), service users (10 interviews), supervisors (5 interviews), secondary and primary care representatives (9 interviews), and researchers (3 interviews). We also recorded 10 sessions, undertook 20 follow up interviews, collected 39 practitioner reflective logs, 43 supervision logs, contact data and meeting minutes. Evaluative coding against initial programme theory frameworks was used to create practitioner and service user case studies. Deductive analysis across cases informed assessment of delivery. Inductive analysis informed further theory development.

Findings

Delivery compared to model varied. Practitioner experience sometimes acted as a barrier to working more equitably with service users, but as a facilitator in collaborating with professionals. Practitioners without experience and confidence liaising across primary and secondary care hierarchies benefited from support with this aspect of the role. In a refinement to the model, service users valued practitioners as a 'professional friend', experiencing improved confidence. There were no clear examples of improved confidence and agency translating to improved quality of life.

Consequences

Trainers should consider the need to provide sufficient time for practitioners to change practice. Practitioner recruitment, training and support should consider the interactional skills required to liaise across hierarchies. Practitioners should consider the positive impacts on service user confidence of forming a more equitable, 'professional friend' relationship with service users. Goal setting and collaborative care interventions of less than 12 months may be too short to generate substantive changes in quality of life in those with long-term constrained agency. Further research is needed to understand the role of supervision and optimal training during implementation.

Charley Hobson-Merrett - Lancaster University

Prevalence, impact, and management of fatigue and sedation related side effects of antipsychotics in mental health patients living in the community: a systematic scoping review

Nancy Preston, Jane Simpson

Problem

Many with mental health conditions are supported predominately in primary care, with infrequent input from psychiatry. It is common for these people to take antipsychotics long-term. Tiredness-related side effects such as fatigue and sedation are regularly reported by antipsychotic users. However, the prevalence, impact and management of these side effects in long-term antipsychotic users living in the community is not well understood. We aimed to review existing evidence addressing the prevalence of these side effects in long-term antipsychotic users living in the community, the impact of these side effects on patients, and potential management strategies.

Approach

We included quantitative and qualitative studies. Participants in included studies needed to be 18+, prescribed antipsychotics for a mental health diagnosis, and living in the community. For prevalence studies, participants needed to have taken antipsychotics for 12+ months. Systematic searches of MEDLINE, PsychInfo and CINAHL were undertaken. Data were extracted using a pre-specified tool. A narrative synthesis of data was undertaken. Meta-analysis of prevalence rates was not possible due to large variation in methodology across studies.

Findings

Early results indicate 68 included studies, of which 41 address prevalence, 24 impact on users, and 13 management strategies. Prevalence rates vary by gender, specific drug, and research design. Notwithstanding this, tiredness-related side effects are commonly the first or second most prevalent side effect. Naturalistic longitudinal and cross-sectional studies report higher rates of these side effects than randomised controlled trials. Quantitative designs reporting impact focus on numerical values of indicating high levels of distress and mixed effects on adherence rates; qualitative designs highlight the negative impact of sedation, fatigue and excess sleep on social functioning and wellbeing. Management strategies are limited to modifying antipsychotic drug, or utilising Modafinil adjuctives; with little evidence of efficacy of the latter, and the former limited by side effect profiles of alternative antipsychotics (e.g. increased metabolic risk). Full results will be presented at the conference.

Consequences

Practitioners should be aware that tiredness-related side effects of antipsychotics persist in long-term users in their care, that these side effects are distressing and impact users lives. Further research is needed to investigate effective management of these side effects.

Noreen Hopewell-Kelly Natalia V Lewis - NIHR Bristol Biomedical Research centre/University of West England NIHR Bristol Biomedical Research Centre/University of Bristol

Coming together to make research: a case study of the impact of involvement in research on people with lived experience of domestic abuse

Ingrid Jones, Alison Prince, Shass Lewis

Problem

Developing and evaluating collaborative and innovative public involvement in research through theatrical performance. Hard Evidence is a theatre play written and performed by two women with experience of domestic abuse who were members of an advisory group on the coMforT study In 2018-20, coMforT developed and pilot tested a trauma-specific mindfulness course for women with post-traumatic stress and a history of domestic abuse. The advisory group helped research team to plan, deliver, analyse, and disseminate the study's findings. Supported by the coMforT public involvement lead, principal investigator, and play director, the women created Hard Evidence to reflect on their experiences of domestic abuse and involvement in research. It is a fictional story of two friends, Jan and Christine, who both have experience of domestic abuse, but are at different points in their journey to finding support. It shines light on how involvement in research influenced their individual journeys and empowered them to start helping others. This study now aims to evaluate the process of developing a theatre play as an output of public involvement in research and its impact on women with lived experience of domestic abuse, researchers, theatre production team, and the public.

Approach

Qualitative process evaluation using a case study methodology. Qualitative semi-structured interviews with the cast of Hard Evidence, coMforT research team and advisory group, production team (n=10) explore their experiences and perceived impact of involvement in research and the play. Qualitative analysis of feedback forms (n=36) explores play audience's experiences and perceived impact.

Findings

Hard Evidences audience members provided positive feedback highlighting the key message about the empowering effect of involvement in research on women affected by domestic abuse. The production team, coMforT researchers and advisers described the process of equal collaboration and co-production that gave power to everyone involved in the process. Researchers highlighted the importance of the adequate funding, dedicated public involvement coordinator, and collaboration with specialists in arts and communication on the outputs and impact of the public involvement in research.

Consequences

Public involvement creates a space in which researchers collaborate with people who have lived experience of their given area of research, this has positive outcomes. However, where resources and funding are available, the remit of the involvement role can be broadened. In turn innovative collaboration can then be developed. In the case of Hard Evidence, resources enabled the

involvement of artists, communication experts, researchers and involvement leads and as a result, greater outcomes for research, involvement and engagement became truly possible.

Samantha Hornsey - University of Southampton

Management of paediatric chronic insomnia: a mixed-methods study of UK primary care practitioners. Exploring their views, knowledge and current practice.

Dr Catherine Hill, Dr Ingrid Muller, Dr Beth Stuart, Professor Hazel Everitt

Problem

Behavioural insomnia, a form of chronic insomnia (CI), is common in children, impacting the child and family. Behavioural interventions are effective, and primary care offers potential to address CI early. Limited research has explored management within UK primary care. This mixed-methods study aimed to explore UK primary care practitioners' (PCP) views, knowledge/training, practice and unmet needs for managing CI in otherwise healthy infants/children up to five years old.

Approach

Participants were UK-practicing PCPs, including community PCPs such as health visitors (HVs). 355 PCPs (97% GP practice staff) were recruited to an online survey via advertisement through 10 CRN regions and an NHS Trust, and analysed with descriptive statistics. 21 participants (18 GPs, 3 HVs) continued to a qualitative interview and transcribed verbatim were analysed with reflexive thematic analysis.

Findings

Most survey participants agreed/strongly agreed that CI impacts the children and family, that it should be managed in healthcare, and that behavioural management is important. 40.6% and 42.5% reported it is 'rarely' and 'sometimes' discussed in consultation. Over 85% would recommend 'positive bedtime routines' most or all of the time, compared to less than 50% for other individual recommendations. 68.9% were unaware of other resources for parents, and PCP confidence for management varied. 84.8% received no teaching about this topic during professional training and 80.3% would like to access further training opportunities. Interview findings echoed the survey findings and gave further insight. CI is perceived as a common problem that is infrequently presented in general practice, but frequent for HVs. General practice is perceived to have the role for signposting (particularly to HVs), general assessment, emotional support and basic advice, whereas HVs are also suited to in depth behavioural management. Participants emphasised the importance of individualised management. Although knowledge and self-efficacy varied, knowledge was usually from personal experience over any professional training. HVs have more opportunities for training. GPs were interested in brief/ appropriate training opportunities.

Consequences

Increased discussions about CI in general practice supported by increased appropriate training opportunities and confidence, and awareness of evidence-based resources to signpost in primary care could improve the management of paediatric CI.

Alyson L Huntley / Lorna Duncan - University of Bristol

Self-management strategies for people with heart failure-related fatigue: a systematic review.

Lorna J Duncan, University of Bristol Beth Stuart, University of Southampton Clare J Taylor, University of Oxford Rachel Johnson, University of Bristol

Problem

Heart failure (HF) affects around one million people in the UK. Fatigue is a common symptom which patients find difficult to describe but can be distressing and negatively impact on both their quality of life and prognosis. Our recent James Lind Alliance priority setting partnership identified the importance of fatigue to patients with advanced HF (DOI: 10.1136/openhrt-2020-001258).

Approach

Our aim was to conduct a systematic review of self-management approaches that people with HF can use to help manage fatigue.
https://www.crd.york.ac.uk/prospero/display_record.php?ID=CRD42020202403. We excluded formal rehabilitation, and prescribed medication. We searched the following databases MEDLINE, Psychinfo, Emcare and the Cochrane Central Register of Controlled Trials (CENTRAL) from inception to August 2021. Our questions were 1) What strategies are used to help patients manage their symptoms of HF-related fatigue? 2) Which strategies of self-management are most effective in managing HF-related fatigue symptoms? We were also interested in how fatigue was defined and measured in these trials.

Findings

Twenty-eight full papers were selected for inclusion describing 27 trials (24 RCTs) These trials described exercise (7), education & support (5), mind-body therapies (9), and diet and supplements (6). The Cochrane risk of bias was low or unclear for most domains. Fourteen trials had ≤ 100 participants,13 trials had 101-204 participants. Heterogeneity across intervention type, delivery and outcome measures prevented meta-analysis. Most individual trial data showed some positive impact on fatigue including exercise training, inspirational muscle training, education, Qiqong, progressive muscle relaxation, mindfulness, cognitive behavioural therapy and dietary approaches including supplements. Trials for patient-centred care, tai chi, biofeedback, meditation, and hawthorn extract did not show any effect on fatigue. A definition of fatigue was provided by some of the trial authors, and a range of outcome measures were used to measure fatigue.

Consequences

The evidence base for the efficacy of self-management methods for alleviating HF-related fatigue is modest in both study number, size, and quality. Yet it does present a choice of promising strategies, that could appeal to a range of self-management preferences for individuals with HF. Further well-designed trials are needed, along with consensus work on fatigue definitions and reporting.

Dr Ishrat Islam - Research Associate, PRIME Centre Wales, Cardiff University

Development of a core outcome set for the evaluation of interventions preventing COVID-19 in care homes (COS-COVID-PCARE Study)

Prof Kerry Hood, Director, Centre for Trials Research, Cardiff University Prof Fiona Wood, Post-Graduate Research Lead, Division of Population Medicine, Cardiff University Dr Victoria Sheperd, Research Fellow, Centre for Trials Research, Cardiff Univers

Problem

COVID-19 has had a devastating impact on care home residents, with almost half of all international COVID-19 deaths during the first wave occurring in care homes. Pharmacological and non-pharmacological interventions to prevent the transmission of COVID-19 in care homes are being developed and evaluated. However, a lack of consensus around outcome measures make comparisons between interventions challenging. A minimum set of outcomes termed a core outcome set (COS), will ensure that the results of interventions can be compared and combined.

Approach

A range of stakeholders (care home staff, relatives, researchers and healthcare professionals) participated in two rounds of an online Delphi survey followed by an online consensus. A review of relevant trials identified a candidate list of outcomes. Participants rated a list of candidate outcomes on a nine-point scale in the first round with the opportunity to propose additional outcomes. Outcomes were eligible for inclusion in the 2nd round of Delphi if they met a priori threshold of consensus. Participants then re-scored the selected outcomes in Round 2. A consensus meeting was held to agree on the final COS.

Findings

Key stakeholders (n=70) including care home representatives (n=19), healthcare professionals (n=20), people with personal experience (n=7), researchers (n=15) and others (n=9) participated in the Delphi. They scored 25 candidate outcomes in Round 1, with 10 new outcomes included in Round 2. Following the Delphi survey, 21 items were included in the COS, with 9 equivocal items requiring further discussion to determine inclusion. An online consensus meeting was held with researchers (n=6), clinicians (n=2), relatives of people living in care homes (n=2), and 'others' (n=2) attending, and 3 of the 9 items were included. The final COS comprised 24 outcomes across domains of infection (n=4), severity of illness (n=7), mortality (n=2), and 'others' (n=11).

Consequences

Uptake of the COS will reduce heterogeneity between trials to prevent COVID-19 in care homes. The outcomes identified in this COS may also be relevant to future pandemics and to interventions that prevent other infections in care homes, such as influenza. Future work should identify which instruments should be used to measure these outcomes.

Iwan Jones - University Of Southampton

Exploring symptoms in uncomplicated female urinary tract infection and their relationship to bacterial infection and age

Dr Beth Stuart, Professor Michael Moore, and Paul Little

Problem

Acute uncomplicated UTIs are a common presentation in primary care, but they can be often misdiagnosed. This can be detrimental to treatment and increase inappropriate antibiotic prescriptions and anti-microbial resistance. A recently published Danish paper suggested that the diagnostic value of symptoms used for diagnosis of UTIs could vary according to age.

Approach

Our aim was to explore whether this result could be replicated in a large UK cohort and see if this pattern was present. We did this be starting with two observational cohorts of females presenting in general practice with UTIs between January 2002 and February 2005. These were merged, and patient characteristics described by age group, consistent with the published Danish study. We calculated the sensitivity, specificity, positive and negative likelihood ratios for the symptoms, dysuria, day and night frequency, urgency, and abdominal pain, across the age groups. We focused on reporting PPV and NPV in line with the results reporting in the Danish paper, and because they provide the best way of interpreting changes across age groups with respect to the diagnostic utility of symptoms. We then also compared our likelihood ratios with those reported in the Danish study.

Findings

Our results showed dysuria being predictive of UTI with an overall PPV of 1.2 (95% CI 1.29-1.39), with day frequency, night frequency, and urgency all having similar PPVs. Abdominal pain had an overall NPV of 1.15 (1-1.33), both from the normal analysis. The positive and negative likelihood ratios showed no substantial difference across age groups. Overall, we found no evidence for a pattern across the age groups, in contrast to the Danish report which did.

Consequences

From our data we could not confirm a pattern across age groups for the predictive ability of symptoms in UTI. Further research is needed into the topic to establish if the predictive value of symptoms varies according to age.

Mark Kingston - Swansea University Medical School

Paramedics in Primary Care: Implementation matters

Alison Porter

Problem

Pressures of patient demand and GP shortages have prompted a major workforce shift in primary care in the UK. Increasingly, paramedics are joining the clinical team in primary care – but with wide variation in terms of how they are employed, managed and supported. With numbers of paramedics in primary care rapidly increasing in line with current policy, evidence is needed to understand how paramedics can be successfully implemented.

Approach

We evaluated initiatives introduced jointly by a health board and ambulance service in two separate sites. Each featured advanced paramedics (APs) – paramedics with additional education - rotating between their usual role and the new primary care role. In site A, the service of 9 APs spanned across 5 general practice clusters. Site B featured 1 general practice with 8 APs. We undertook 28 qualitative interviews with managers, practice staff, paramedics and patients to understand implementation at both sites. We used the iPARIHS implementation framework (Harvey and Kitson 2015) as a conceptual lens to review data (transcripts); based on its four interrelated domains of context, innovation, recipients and facilitation.

Findings

Site A was introduced as part of a service improvement exercise, with external funding, a focus on primary care training and personal development, and a structured lead in time. In contrast site B APs were introduced at short notice to address an acute GP shortage. At both sites the innovation was similar – a mix of home visits and in practice clinics undertaken by the practitioners. Interviewees reported that the services helped to increase capacity, and were well received by patients and most staff. At Site A facilitation, led by dedicated project staff and training helped to shape the culture and preparedness. Site B staff reported less readiness, impacting on morale, interprofessional working, and sustainability.

Consequences

Paramedics are a rapidly emerging part of the primary care team, but there is great variation in service models and in their implementation. Our comparative approach, informed by iPARIHS, illustrates the importance of understanding implementation in the potential success of such initiatives. Further research should consider implementation alongside cost and clinical effectiveness.

Judit Konya - University of Exeter Medical School HEE Kernow Health CIC Training Hub

The role of Pharmacists in primary care in the care of patients with diabetes – a narrative review of studies in the United Kingdom

JL Campbell, D Bearman, CE Clark

Problem

Diabetes is one of the most prevalent chronic conditions in the UK. Pharmacists have increasingly important roles in the community assisting with diagnosis and management of diabetes. Evidence suggests that they can have a beneficial effect on clinical outcomes, however, it is unknown how, exactly, community and primary care pharmacists contribute to the care of patients with diabetes.

Approach

This study identified recent or current UK based initiatives involving pharmacists in diabetes care in the community or general practice, published in 2004, or later. Medline and CINAHL databases were searched, with relevant professional websites hand searched. All publication types were eligible; searches were updated in October 2021.

Findings

3865 abstracts were screened and 235 included for full text review. One quarter of citations retrieved from the databases were published within the last two years, indicating rapid growth in the literature. This expansion was not observed during the hand searches. The full text reviews are ongoing and final findings will be presented at the conference. Findings from the original searches indicated that a range of interventions can be delivered by pharmacists which are generally positively valued by patients, pharmacists, commissioners and primary healthcare staff; and clinical outcomes, where reported, generally improved. The community pharmacy is a convenient, accessible setting for screening, and assisting the diagnosis and management of diabetes.

Consequences

Pharmacists in various roles are contributing to the care of people with diabetes in community and general practice settings. A better understanding of these roles and their impact could improve integrated service delivery.

Judit Konya - University of Exeter Medical School HEE Kernow CIC Training Hub

Early cancer diagnosis – can outcomes in deprived areas be improved by involving community pharmacists?

RD Neal, CE Clark, D Bearman, JL Campbell

Problem

The key to the success of cancer treatment and better clinical outcomes is early detection. Clinical outcomes from cancer are worse in deprived communities. The role of primary care is essential in early diagnosis as patients with cancer related symptoms most commonly present to primary care for initial consultation. The significantly increased workload in general practice and the difficulties deprived communities experience accessing general practice raise the possibility that other health service providers that are easily accessible, such as community pharmacies, can contribute to the recognition of symptoms representing cancer.

Approach

A scoping review of the available literature was conducted by searching PubMed using keywords “pharmacist” and “cancer”, and by handsearching relevant UK-based websites. We aimed to summarize the evidence from the UK, examining gaps in the available research outcomes.

Findings

The PubMed search identified 245 titles. Five of these were relevant. One of these studies was a systematic review with no UK-based studies included. Only one of the five publications was from the UK: an assessment of an online decision support tool that can be completed in community pharmacies. Hand searches identified the Accelerate, Coordinate, Evaluate (ACE) program, which includes five different projects contributing to the early diagnosis of cancer. Nine further studies reported on initiatives addressing raising awareness, providing education, or offering risk assessment (and in some cases referral to a GP or directly to secondary care). Methods varied, but, in general, outcomes were poorly reported or not at all.

Consequences

More evidence is needed to evaluate the effectiveness of interventions in community pharmacies aimed at recognising cancer symptoms early. Feasibility of such approaches, acceptability to patients and stakeholders, and particularly the effectiveness of the interventions and clinical outcomes need to be further characterised. In line with The National Institute for Health and Care Excellence (NICE) research recommendations, these would be best explored by comparing uptake in affluent and deprived populations to assess if the community pharmacy team can be part of a revised pathway of care.

Harleen Kooner - University Of Southampton

Infection control behaviours to reduce transmission of COVID-19 within households: a retrospective survey

Taeko Becque, Joelle Houriet, Bertrand Graz, Marco Leonti, Beth Stuart, Michael Moore, Paul Little, Nick Francis, Merlin Willcox

Problem

Individuals who share a household with someone who has COVID-19 are at high risk of contracting the infection. Understanding the role of infection control behaviours in reducing the transmission of COVID-19 is key to controlling the spread of the SARS-CoV-2.

Approach

To describe the association between self-reported us of infection control behaviours and risk of COVID-19 amongst household contacts. The Retrospective Survey of Prevention, Treatment, Occurrence, and outcomes of COVID-19 in the community (RTO COVID-19) was an online survey which recruited members of the public in 14 countries from July 2020 to June 2021, including through mass emailing universities, and texts from GP practices. In this analysis, we first explored the association between reported use of infection control behaviours and developing COVID-19 in participants who reported having a household contact with COVID-19 or any respiratory tract infection. We also explored associations between reported infection control behaviours of participants who had confirmed or probable COVID-19, and subsequent illness in other household members. Logistic regression was used to describe associations between infection control measures and transmission of COVID-19, while adjusting for potential confounders.

Findings

Overall, 64,557 respondents returned a fully completed survey. In respondents who had a household member with suspected COVID-19 (n=6979), the only behaviours associated with significantly reduced risk were wearing a facemask (OR 0.44, 95% CI 0.30-0.65) and social distancing (OR 0.56, 95% CI 0.37-0.85). In respondents with confirmed or probable COVID-19 (n=3748), the only behaviour associated with significantly reduced risk amongst other household members was social distancing (OR 0.52, 95% CI 0.28-0.96). Behaviours to prevent fomite transmission (eg. washing objects etc.) were not significantly associated with COVID-19 transmission amongst household contacts.

Consequences

Our results are consistent with the wide body of evidence suggesting that COVID-19 is mainly spread through aerosol transmission. Our data suggest that wearing a facemask and social distancing can substantially reduce the risk of household transmission, although we found stronger evidence for facemasks providing protection to those wearing them than we did for the use of facemasks to protect others, when the person wearing the mask had COVID-19.

Dr Jeffrey Lambert - Department for Health, University of Bath

Facilitating access to online NHS primary care services - current experience and future potential (Di-Facto): The Practice Survey

Rachel Winder Dr Gary Abel Professor John Campbell Dr Brandi Leach Hamish Evans Dr Mayam Gomez-Cano Dr Helen Atherton

Problem

There has been a recent policy drive for general practice to increase provision and use of primary care online services (e.g. booking appointments, arranging repeat prescriptions, and online consultations). However, patient engagement with online services remains slow, particularly in vulnerable and marginalised groups. Whilst practices can facilitate patients' engagement, the extent and nature of 'digital facilitation' is not clear.

Approach

As part of the NIHR funded Di-Facto study, we surveyed 500 general practices in four geographic regions, to identify and characterise how they promote, support and enable patients to use online services. An earlier scoping review informed questionnaire development.

Findings

156 practices responded (31%), with most offering 5 to 8 online services. Passive facilitation (e.g. leaflets, practice website) (30% to 83%) was provided more often than active facilitation (e.g., practice champion, workshops) (7% to 23%), with clinical and non-clinical staff being involved. Facilitation supporting patients to order repeat prescribing online was most frequently reported (53% of practices). Practices reported specifically targeting vulnerable or minority groups, in particular older adults. Most responders agreed that both the practice (85%) and NHS policy makers (e.g., CCGs, 88%) had a responsibility to promote and support online services, and that this was beneficial to patients (96%).

Consequences

Findings from this survey and the wider Di-Facto study have implications for patient and practice needs and will inform the shaping of policy at the regional and national level including policy aimed at ensuring how best to include and support vulnerable and minority groups in their use of NHS online services.

Paul Little - University of Southampton

Antibiotics for lower Respiratory Tract Infection in Children presenting in Primary Care (ARTIC PC): a randomised placebo controlled trial

: Nick A. Francis. Beth Stuart, Natalie Thompson,Dr Taeko Becque, Alastair D Hay, Kay Wang, Anthony Harnden, Joseph Little, Charlotte Hookham, Kate Rowley, Joanne Euden, Catherine Woods, Christopher C. Butler, Geraldine Leydon, Kerenza Hood, Jane Whitehu

Problem

Antibiotic resistance is a global public health threat. Antibiotics are very commonly prescribed for children presenting with uncomplicated lower respiratory tract infections (LRTI) but there is little randomised evidence of the effectiveness of antibiotics, both overall or among key clinical subgroups

Approach

Children aged 6 months to 12 years presenting in primary care with acute uncomplicated LRTI, where pneumonia was not suspected clinically, were randomised to receive Amoxicillin 50mg/kg/day in divided doses orally for 7 days, or placebo. The primary outcome was the duration in days of symptoms rated moderately bad or worse (measured using a validated diary).

Findings

432 children were randomised (221 antibiotic, 211 placebo). The primary analysis imputed missing data. Duration of moderately bad symptoms was similar in antibiotic and placebo groups (median 5 vs 6 days, respectively; hazard ratio (HR) 1.13 (0.90 to 1.42)). Potential harms were similar in both groups: return with new or worsening symptoms (29.7%, 38.2%, risk ratio 0.80 (0.58 to 1.05)), where hospital assessment was required (2.4% vs 2.0%) and side effects (38% vs 34%). No differences were seen for the primary outcome in the five pre-specified clinical subgroups where antibiotic prescribing is common (chest signs; fever; physician rating of unwell; sputum/rattly chest; short of breath). Estimates from complete cases (n=317) and a per protocol analysis were similar. NHS costs per child were slightly higher with antibiotics (antibiotic £29; placebo £26) and societal costs were similar (antibiotic £33, placebo £33).

Consequences

Amoxicillin for uncomplicated chest infections in children is unlikely to be clinically effective both overall and for key subgroups where antibiotics are commonly prescribed, and unlikely to reduce health or societal costs.

Dr Elizabeth Lovegrove - University of Southampton

Low-dose amitriptyline for the prevention of post-herpetic neuralgia (ATHENA): a Study Within A Trial (SWAT).

Mr Seamus Gate, Dr Stephanie J MacNeill, Ms Yumeng Liu, Ms Sian Wells, Ms Lorelei Hunt, Ms Anna Gilbertson, Dr Robert Johnson, Dr Rebecca Kandiyali, Professor Hazel Everitt, Professor Matthew Ridd

Problem

Herpes zoster ('shingles') is commonly diagnosed in general practice. Antiviral treatment, (recommended for patients who are immunocompromised, have non-truncal involvement, moderate/severe pain or rash, or are 50 years+) is most effective when started within 72 hours of rash onset. However, antivirals do not reduce the incidence of post-herpetic neuralgia (PHN). ATHENA is a multi-centre, individually randomised, pragmatic placebo-controlled superiority trial to determine if prophylactic low-dose amitriptyline is clinically and cost effective for the prevention of PHN. This SWAT is a cluster randomised controlled trial which aims to ascertain if a practice-level educational intervention increases the proportion of patients with shingles who are assessed within 72-144 hours of rash onset, therefore additionally improves recruitment into ATHENA.

Approach

Shingles has a unique presentation, including a prodrome and a painful, blistering unilateral dermatomal rash. Reception staff in GP surgeries routinely ask about patients' symptoms, to facilitate an appropriate appointment. Our intervention, which will comprises an educational poster, desktop background and video, is aimed at receptionists. Improving their knowledge about shingles and the benefits of early treatment may support them to prioritise patients with shingles-like symptoms. We will recruit up to 120 GP surgeries, across West of England, Thames Valley and South Midlands and Wessex CRN areas, and randomise them to intervention or control. Intervention practices will receive educational materials, to be displayed for four months (with reminders). Control surgeries will receive only ATHENA trial posters, designed for patients/display in waiting rooms and practice websites. Baseline data, including shingles incidence, will be collected. The primary outcome measure is the proportion of shingles patients seen within 72-144 hours of rash onset, who are therefore also eligible for recruitment into ATHENA.

Findings

Trial set up and ethical approval is complete, and practice recruitment underway. Intervention format and content, the challenges of this SWAT and initial figures regarding implementation will be presented.

Consequences

This SWAT will provide evidence on whether a practice-level educational intervention improves the timely assessment of patients with shingles in general practice and whether such an approach can improve trial recruitment.

Efi Mantzourani - Digital Health and Care Wales, Cardiff, Wales, UK / Cardiff School of Pharmacy and Pharmaceutical Sciences, Cardiff University, Cardiff, Wales, UK

What is the value of routine point-of-care tests to detect Strep A infections as part of a Sore Throat Test and Treat service in community pharmacy? Comparing two service delivery models.

Rebecca Cannings-John, Centre for Trials Research, Cardiff University, Cardiff, Wales, UK Andrew Evans, Primary Care Services, Welsh Government, Cardiff, Wales, UK Haroon Ahmed, School of Medicine, Cardiff University, Cardiff, Wales, UK

Problem

The community pharmacy-led Sore Throat Test and Treat (STTT) service in Wales was introduced in November 2018. It provided a clinical pathway to better utilise pharmacist skills, shift management of common ailments to allied health professionals, and free up GP time for more complex and urgent medical issues. Under the service, a structured clinical assessment with FeverPAIN/Centor scores was undertaken by pharmacists, with a Point-of-Care Test (POCT) for Group A Streptococcus (GAS) infection when threshold scores were met (FeverPAIN >1 or Centor>2). In November 2020, a new service model was temporarily agreed as a result of COVID-19, without routine use of POCT. This provided an opportunity to expand the evaluation of this new service delivery model and consider the optimal way to support changes in sore throat assessment in primary care. GAS POCT is not routinely adopted in GP consultations in the UK, but there are diverging opinions internationally and evidence is limited, particularly in community pharmacy. The aim was therefore to explore the impact of removing the routine POCT on antibiotic supply.

Approach

Secondary analysis of routinely collected STTT consultation data, obtained for the pre-pandemic period (Nov18-Sep19), compared to consultation data obtained during the pandemic (Nov20-May21).

Findings

The overall antibiotic supply rate (irrespective of threshold scores) increased by 27% (from 21% (940/4,468; 95% CI: 20-22%) to 48% of all consultations (95/199; 95% CI: 41-55%)). When only consultations eligible for POCT were considered, this increased by 36% (from 27% (922/3,369; 95% CI: 26-29%) to 63% (93/147; 95% CI: 55-71%)). For high clinical scores (FeverPAIN 4/5 or Centor 3/4), where NICE guidance advises an immediate or back-up antibiotic prescription, more than half of patients (56%, 646/1,154) were not offered antibiotics following a negative POCT result pre-pandemic; this decreased to 9.3% (8/86) when routine POCT was removed.

Consequences

Preliminary data suggests that in community pharmacies the pre-pandemic delivery model is the optimal pathway and a stepwise approach to the management of acute sore throat may result in fewer antibiotic prescriptions for sore throat symptoms. STTT service delivery beyond the COVID-19 pandemic should involve a diagnosis confirmed by a validated POCT.

Tanimola Martins - University of Exeter

Ethnic inequalities in routes to diagnosis of cancer: a population-based UK cohort study

Gary Abel Obioha C Ukoumunne Luke T.A. Mounce Sarah Price Georgios Lyratzopoulos Frank Chinegwundoh William Hamilton

Problem

UK Asian and Black ethnic groups have poorer outcomes of some cancers and are less likely to report a positive care experience than their White counterparts. This study investigated ethnic differences in the route to diagnosis (RTD) to identify areas in patients' cancer journey where inequalities lie, and targeted intervention might have optimum impact.

Approach

We analysed data of 160,253 patients with 10 cancers (2006-2016) from the RTD project linked to primary care data. Crude and adjusted proportions of patients diagnosed via six routes (emergency, elective GP referral, Two-week wait (2WW), screen-detected, Hospital and Other routes) were calculated by ethnicity. Adjusted odds ratios (including two-way interactions between cancer and age, sex, IMD, and ethnicity) determined cancer-specific differences in RTD by ethnicity.

Findings

Across the 10 cancers studied, most patients were diagnosed via 2WW (36%), elective GP referral (23%), emergency (19%), hospital routes (10%), and screening (8%). Compared with White patients, Asian and Black patients were less likely to follow the emergency RTD. Instead, they were more likely to be GP-referred, with Black patients also more likely to follow the 2WW route. However, there were notable cancer-specific differences in the RTD by ethnicity.

Consequences

Our findings suggest that where inequalities exist, the adverse cancer outcomes among ethnic minorities are unlikely to be arising solely from a poorer diagnostic process.

Dr Sara McKelvie - Primary Care Research Centre, University of Southampton

Team Decisions to manage Clinical Uncertainty

Dr Margaret Glogowska, Professor Daniel Lasserson, Professor Joanne Reeve

Problem

AEC (Ambulatory Emergency Care) provides acute assessment and treatment in the community for acutely unwell complex older patients, with patients staying in their own homes overnight. Services such as AEC are part of a new landscape of Primary and Community Care services developed to treat patients closer to home. This investigation aimed to understand the impact of the AEC Setting on Clinical Decision-Making of senior clinicians working within Multi-Disciplinary Teams (MDTs)

Approach

Three AEC sites were purposively sampled to recruit twelve clinicians with backgrounds in Geriatrics, General Practice, Emergency and Acute Medicine. This qualitative investigation used focused ethnography within a case study approach to understand the decision-making processes in the context of the AEC environment. Observation during an AEC shift was complemented by informant interviews. A framework approach to thematic analysis used "a priori" and data derived codes to develop explanatory themes. Constant comparison and cognitive task analysis were used to evaluate the clinicians' decision-making processes for index patient cases.

Findings

Collaborative team-based approaches to decision making were frequently seen in AEC. AEC clinicians used their MDTs to aid problem solving. The MDT was particularly useful at assessing the patients' wider needs such a physical function, home life and need for social care. Information from the MDT could facilitate discharge and access the patient further help. For senior clinicians the MDT also provided a sounding board, supporting the cognitive and emotional load of working in urgent care. In summary, AEC senior clinicians worked with their team to improve effectiveness, deal with complexity, and manage stress.

Consequences

Team-based working with shared responsibility and mutual support helped AEC clinicians validate their decisions and provided emotional support for working in uncertainty. In Primary and Community Care new teams are being developed to manage NHS England initiatives such as the Urgent Community Response. These interventions often require new team members such as Advanced Clinical Practitioners (ACPs) and further research is needed how these roles are supported in Primary and Community Care. Further research is needed to understand whether teamworking in Primary Care and Community Care has the potential to reduce stress, improve wellbeing and increase staff retention.

Dr Ruth Mears - University of Bristol

A cross-sectional survey of child weight management service provision by acute NHS trusts across England in 2020

Sophie Leadbetter, Toby Candler, Hannah Sutton, Debbie Sharp, Julian Hamilton-Shield.

Problem

Between 2019-20 to 2020-21, the National Child Measurement Programme (NCMP) reported the highest ever annual increase in obesity rates in primary school aged children. Among 10-11 years old, 25% are now classified as obese. NICE recommends GPs should raise awareness of support available for children living with obesity, and refer children to local weight management programmes, where appropriate. However, awareness of the current status of weight management service provision for children in England is lacking, in terms of geographical distribution, service characteristics and whether the 'gold-standard' multi-disciplinary team approach is offered.

Approach

A survey was sent as a 'freedom of information' request to all acute NHS trusts in England in 2020, asking whether they provide a weight management service for children living with obesity. For those trusts providing a service, data were collected on eligibility criteria, funding source, personnel involved, number of new patients seen per year, intervention duration, follow-up length and outcome measures. Service characteristics were reported using descriptive statistics. Service provision was analysed in the context of ethnicity and IMD score of the trust catchment area.

Findings

Ninety-four percent of acute NHS trusts responded to the survey, of which 23% provided a weight management service for children living with obesity. There were inequalities in the proportion of acute NHS trusts providing a service across the different regions of England, ranging from 4% (Midlands) to 36% (London). For trusts providing a service, there was variability in eligibility criteria, funding source, intervention format and outcome measures collected. Most trusts reported seeing <200 new patients per year. A multi-disciplinary approach was not routinely provided, with only 41% of services reporting ≥3 different staff disciplines.

Consequences

In 2020, there were geographical inequalities in weight management service provision by acute NHS trusts for children living with obesity. Services provided lacked standardisation and did not routinely offer children multidisciplinary care. A clear realistic national strategy outlining who should receive initial priority for specialist multi-disciplinary obesity care is needed, as demand will exceed capacity for the foreseeable future and service provision across England should be equitable.

Shakira Milton - The University of Melbourne

Running a trial remotely. An RCT of a decision aid to support informed choices about taking aspirin to prevent colorectal cancer and other chronic diseases: teletrial design and recruitment during COVID-19

Jennifer McIntosh, Lucy Boyd, Napin Karnchanachari, Finlay Macrae & Jon David Emery

Problem

In response to the COVID-19 pandemic, about 80% of non-COVID-19 trials were interrupted. In December 2019, just before the pandemic, we were funded to conduct a trial in general practice to test the efficacy of a decision aid to implement the aspirin guidelines: The Should I Take Aspirin (SITA) trial. The COVID-19 pandemic restricted our ability to recruit patients in general practice waiting rooms. This paper describes the novel teletrial methods which we developed to allow us to continue the SITA trial during the pandemic.

Approach

Six general practices in Victoria, Australia have been recruited into the trial. Between October 2020 and April 2021, we screened 566 patients for eligibility, 532 (94%) by telephone and we approached 34 patients in the waiting rooms. We successfully recruited 264 people (87% of eligible patients). We delivered the trial consultations using the teletrial model for 57 participants (20% off all recruited patients).

Findings

Approaching patients over the phone minimised our face to face contact and allowed us to safely recruit under some of the strictest COVID-19 restrictions globally.

Consequences

We are now applying this to other trials in general practice as an effective approach to increase participation and improve the external validity of our research.

Abigail Moore - University of Oxford

Recognition and management of acute functional decline in older people living in care homes: a qualitative interview study with care home staff

Margaret Glogowska Dan Lasserson Gail Hayward

Problem

Older people living in care homes sometimes experience episodes of acute functional decline. These represent a diagnostic challenge to GPs and can result in antibiotic prescriptions or hospital admissions, though this may not always the most appropriate management strategy. In this study we aimed to understand how episodes of acute functional decline are recognised, managed and escalated by care home staff.

Approach

This was a qualitative interview study with UK care home staff, including managers, nurses and carers. Staff were recruited through advertisements circulated via email mailing lists, social media and word of mouth. Interviews conducted over the phone between January 2021 and January 2022. They were semi-structured and based on a flexible topic guide. Thematic analysis was facilitated by NVivo 12.

Findings

Care home staff were confident in recognising when residents were less well than usual, especially if they knew them well. However, they sometimes felt it was difficult to differentiate between an 'off day' and something more significant. Care home staff usually associated an acute functional decline with an underlying infection, particularly in the urine. Other causes they considered included medication side effects, constipation, dehydration and stroke. Initial management steps in the care home included a general assessment to look for possible causes and checking observations. Many staff mentioned doing a urine dipstick, although some talked about how this was no longer recommended. Some care home staff felt comfortable monitoring residents for a few days themselves. Some would try an intervention like analgesia or encouraging oral fluids in this period. Others preferred escalating directly to a GP. Some care home staff felt that they had become more confident in their own assessments since the beginning of the pandemic as they had had fewer visits from the GP.

Consequences

This study has helped us unpick the processes occurring in the care home before additional help is sought from other healthcare providers. The findings of this study are being used to inform the design of a feasibility prospective cohort study of care home residents.

Immaculate Ajok Okello - Ms Immaculate Ajok Okello. University of Southampton Dr Merlin Willcox. University of Southampton Dr Alice Maidwell-Smith. University of Stirling

Barriers and enablers for implementing maternal and perinatal death surveillance and response in low- and middle-income countries: a systematic review of qualitative studies

Alice Maidwell-Smith, Merlin Willcox

Problem

Maternal and perinatal mortality rates are still high in low-and middle-income countries (LMICs). Maternal-Perinatal Death Surveillance and Response (MPDSR) can effectively reduce preventable deaths. Despite this, many maternity services often do not undertake such death reviews as recommended. This systematic review and thematic synthesis of qualitative studies aims to identify the barriers, facilitators, and contextual factors influencing the practical implementation of MPDSR in LMICs. Objectives: 1. What are the experiences of personnel implementing maternal-perinatal death reviews in LMICs? 2. How do the barriers and enablers influence the implementation of maternal and perinatal death reviews in LMICs?

Approach

Electronic databases were searched in July 2021 to identify papers using qualitative methodology to explore the barriers and enablers of implementing MPDSR in LMICs (MEDLINE, EMBASE, CINAHL, Global Index Medicus, Web of Science). Additional grey literature was identified using ProQuest Dissertations and Theses, Google Scholar, and discussion with experts. Studies involving health professionals, administrators, or community focal persons implementing MPDSR were included. Studies were excluded if they did not describe qualitative data, had insufficient/poorly reported data, or used data from high-income countries. Search results were independently screened by two researchers and discrepancies were discussed with a third researcher. Two researchers independently coded the first five articles and developed a coding framework which was used for coding all the articles. Descriptive then analytical themes were derived inductively using thematic synthesis.

Findings

38 studies from 23 LMICs were identified for inclusion. Overall, the experiences of personnel influenced the implementation of MPDSR and their participation in reviews. Barriers identified were non-prioritisation of reviews due to inadequate leadership, a blame environment, excessive workload, hierarchical differences, lack of motivation and capacity to conduct reviews. Enabling factors included formal and informal support, motivation, and respect of the “no-name, no blame” principle. Suggestions for improvement included providing adequate resources, training and an incentive to participate.

Consequences

For effective MPDSR, health managers and policymakers should address the factors that fuel a blame culture and impair effective use of human and financial resources. Interventions should prioritise good leadership, communication and practical strategies to motivate staff and encourage implementation of recommendations.

Tanuka Palit - Centre of Academic Primary Care, Bristol Medical School, Bristol, UK

A qualitative study to explore the relationships between multidisciplinary team members who provide community palliative and end of life care.

Charlotte Chamberlain, Candy McCabe, Adam McDermott, Sarah Mitchell, Lucy E. Selman, Katie Versaci, Lucy Pocock

Problem

The Coronavirus pandemic saw a dramatic rise in all community deaths, but in particular private home deaths rose significantly and have remained above the five-year average across 2020 and 2021(1). Most people who die in private homes are cared for by General Practitioners (GPs) and community nurses, with the help of specialist palliative care (SPC) teams. With the ongoing strain from the pandemic, and with increasing rates of chronic illness and multimorbidity, this has only increased demand on these professionals when providing community palliative and end of life (EoL) care. We know that a collaborative and coordinated approach between these multidisciplinary team members is vital when providing good palliative care. However current research does not explore the roles and relationships between these healthcare professionals or describe what factors may help or hinder their partnership working. We also know that the Coronavirus pandemic caused a disconnect between these teams, leading to a shift in roles and responsibilities. It is therefore important to seek the views of these healthcare professionals, to help us understand how care is coordinated in the community setting. This will help us understand where improvements in service provision could be made. 1.Deaths registered in private homes, England and Wales - Office for National Statistics [Internet]. [cited 2021 Nov 22]. Available from: https://www.ons.gov.uk/peoplepopulationandcommunity/birthsdeathsandmarriages/deaths/articles/deathsinprivatehomesenglandandwales/2020finalandjanuarytojune2021provisional

Approach

We aim to explore the main roles and responsibilities of GPs, community nurses and SPC teams within community palliative care, as perceived by each professional group, and define their relationships. We also aim to explore how the Coronavirus pandemic has affected these collaborations. A qualitative exploratory approach will be used to conduct semi-structured interviews with GPs, community nurses and SPC nurses across parts of South West England. Around seven to ten individuals from each professional group will be interviewed.

Findings

Data collection has not yet commenced but the proposed plan is presented here. Data collection will continue until data saturation is obtained for main themes.

Consequences

We hope that by understanding the current strengths and challenges in collaboration between these professional groups, we can inform future models of partnership working in community palliative and EoL care.

Dr Lucy Pocock - Bristol Palliative and End of Life Care Research Group, University of Bristol

Communication of poor prognosis between secondary and primary care: a systematic review with narrative synthesis

Samuel WD Merriel, Sam T Creavin, Tanuka Palit, Emma Gilbert, Steven Moore, Fliss E Murtagh, Sarah Purdy, Stephen Barclay, Lucy E Selman

Problem

Emergency admissions in the last year of life are costly to the NHS, often unnecessary, and can be traumatic for patients and their families. A significant proportion of people die in the 12 months following an admission. Hospital admission is, therefore, a unique opportunity for hospital clinicians to identify patients with a poor prognosis (probably in the last year of life) and share this with General Practitioners (GPs) at discharge. This can lead to improved continuity of care, providing a trigger for the GP to initiate Advance Care Planning discussions with patients and their family/carers. This has the potential to reduce avoidable admissions to hospital and increase the likelihood of patients dying in their preferred place. This systematic review with narrative synthesis aims to produce a critical overview of research on the communication of poor prognosis between secondary and primary care.

Approach

We conducted a systematic review with narrative synthesis to integrate and summarise findings from included studies. We searched Medline, EMBASE, CINAHL, and the Social Sciences Citation Index for all study types, published since 1st January 2000, and conducted reference-mining of systematic reviews and publications. Study quality was assessed using the Mixed Methods Appraisal Tool. In accordance with the guidelines, our systematic review protocol was registered with the International Prospective Register of Systematic Reviews (PROSPERO) on 19th May 2021 (CRD42021236087).

Findings

In total, 19,486 study reports were identified from the database searches. Of these, 173 full-text reports were assessed and 24 studies were deemed eligible for inclusion in this review. Data extraction and evidence synthesis is in progress and will be complete prior to March 2022. Data will be presented on how poor prognosis is communicated between secondary and primary care, the facilitators of, and barriers to, this communication, the acceptability and usefulness to patients, family/carers and clinicians and evidence of the impact of this communication on patient care.

Consequences

The findings will inform a qualitative study to investigate the communication of poor prognosis from secondary care to primary care at hospital discharge. We will publish our findings in a peer-reviewed journal as per PRISMA 2020 guidance.

Ian Porter - University of Exeter, College of Medicine and Health

The International Survey of People Living with Chronic Conditions (PaRIS survey): development of the patient questionnaire

Mieke Rijken, Oliver Groene, Rosa Suñol, Rachel Williams, Michael van den Berg, Jimmy Martin Delgado, Jon P Evans, Marta Ballester, Janika Blömeke, Laura Thomas, Chloe Thomas, Peter Groenewegen, Wienke Boerma, Monique Heijmans, Katehrine De Bienassis…

Problem

The Organization for Economic Cooperation and Development (OECD) PaRIS survey aims to support countries in improving care for people living with chronic conditions by collecting information on how these people experience the quality and performance of the primary and ambulatory care services they use in their country. We present the development of the patient questionnaire of this survey.

Approach

Candidate scales and items were identified through a comprehensive and systematic process including a series of systematic literature reviews, engagement with international stakeholders including the PaRIS Patient Advisory Panel, Technical Advisory Community and National Project Managers of participating countries, and oversight by a Working Party of OECD member states representatives. Following a mapping exercise onto the conceptual framework, four instruments for each domain were shortlisted using predefined criteria. The psychometric performance of the candidate instruments was assessed using the EMPRO method. A subsequent modified Delphi procedure was implemented for selecting a core instrument for each domain and additional relevant scales/items. Further consultations took place with the relevant stakeholders to confirm the suitability of the proposed questionnaire, whose feedback resulted in a number of iterations until a final version was agreed.

Findings

217 instruments were identified measuring one or more of the domains of the conceptual framework. The two-staged Delphi procedure resulted in consensus on a single core instrument for each of the four main domains, as well as additional questions to ensure comprehensiveness. The final version of the survey includes the following sections: “Your health” (18 items; PROMIS Global-10, WHO-5, and others), “Managing your health and health care” (26; Porter-Novelli and others), “Your experience of health care (P3CEQ and others)” (49), About yourself (24).

Consequences

A comprehensive questionnaire has been constructed based on the PaRIS survey framework for people living with chronic conditions and following an inclusive approach. The current questionnaire has been evaluated through cognitive testing and will soon be piloted in a Field Trial in participating countries. These subsequent stages will offer opportunities for improving the questionnaire, ensuring adequate performance and offering insights into how the questionnaire can be modified to reduce the burden of administration while balancing comprehensiveness and metric performance.

Yvette Pyne - University of Bristol

Meta-work: how we research is as important as what we research

Stuart Stewart

Problem

"Manuscripts, like sea turtle hatchlings, face many hazards during their harrowing journey from the nest to the open sea, and many never make it.". With MEDLINE indexing an average of two new citations every minute, the volume of successful medical research publication belies the extent of academic work that never reaches the DOI finish line. Almost half of all published abstracts do not lead to published results and papers and there are likely many reasons why this happens; whether the research itself was not finished due to funding problems, the research was completed but not written up, or the researchers could not find a journal that would publish their findings. A common thread weaving through these issues relates to the availability of time and the ability to use that time to produce only high-quality writing.

Approach

We offer a short presentation describing key pointers on how we, as early career academics have addressed the issue of "meta-work" in academia through the selective use of digital tools that help us streamline our research workflow from reading and assimilating existing literature to capturing new insights and generating new ideas.

Findings

Through adopting these techniques ourselves in the last year, we have produced several first author publications (including an accepted manuscript on this topic in the BJGP), are working on two books, and are chief investigators on three different projects despite also spending half of our week in clinical GP training.

Consequences

Early career researchers are ‘pluripotent’ with endless opportunities to learn and grow from. By dedicating some thought to how we research as well as what we research, we can make the most of our finite time and energy and have even more fulfilled and productive academic careers.

Tanvi Rai - Nuffield Department of Primary Care Health Science University of Oxford

What could help shift research activity to the areas with the highest disease prevalence? A qualitative study exploring how NIHR funded Chief Investigators select trial sites in multi-site RCTs.

Sharon Dixon Sue Ziebland

Problem

Participating in research benefits patients, clinicians and healthcare settings. Clinical research activity in the UK does not align with areas of highest disease prevalence. The NIHR encourages the Chief Investigator's (CI's) they fund to focus their research 'with and in the populations most affected'. Little is known about how NIHR CI's approach decision making about trial site selection in multi-site RCTs.

Approach

We undertook qualitative semi-structured telephone interviews with a purposive sample of thirty CIs of NIHR funded RCTs. We explored how they made decisions about trial site inclusion and selection and asked for their thoughts on recruitment in areas of highest disease prevalence.

Findings

CIs want to deliver successful high-quality trials on time and in budget. They were motivated by scientific excellence and could see the value of recruiting in areas of high prevalence. However, approaching newer or less research active (experienced) sites was experienced as risky, potentially compromising trial delivery. Fears of trial closure if recruitment or retention were low, with associated reputational risks, were important considerations. Accounts from the CIs who had 'broken the mould' suggest that nurturing new sites can be highly successful. CIs perspectives on what would support them to develop trial sites in areas of high disease prevalence offers insights into opportunities for shifting behaviour.

Consequences

The availability of 'heat maps', which show the areas of highest disease prevalence (and existing research disparities) are a valuable tool which could support site selection and research planning. Inclusive (and representative) PPIE and early embedded qualitative research in trial design and set-up can foster a more nuanced and inclusive approach to recruitment. Funders could play a powerful role, for example through incentivising recruitment in areas of high prevalence or by seeking (and valuing) more granularity in recruitment reports. Improving equity of care and research, including capacity building was important to CIs. However, they were primarily motivated by their commitment to delivering successful trials and good science. Therefore, highlighting the potential benefits for trial delivery is likely to be a powerful tool to encourage CIs to focus research on areas of greatest need.

Debra Richards - University of Plymouth

Effectiveness of a primary care based collaborative care model to improve quality of life in people with severe mental illness: the PARTNERS2 cluster randomised controlled trial

Charley Hobson-Merrett, Siobhan Creanor, Benjamin Jones, Joanne Hosking, Humera Plappert, Sheriden Bevan, Nicky Britten, Michael Clark, Linda Davies, Bliss Gibbons, John Gibson, Pollyanna Hardy, Alison Jeffery, Steven Marwaha, Tim Rawcliffe, Ruth Sayers,

Problem

Individuals living with severe mental illness (SMI) can have significant emotional, cognitive, physical and social challenges. Many people with SMI in the UK do not receive specialist mental health care, instead seen only in primary care. A significant policy shift in the UK prioritises better integration between primary and secondary care. Collaborative Care is a system of care which includes clinicians from primary and secondary care working together, proactive review, and psychological support. It has not been tested for SMI in the UK. We aimed to evaluate if a primary care-based collaborative care model (PARTNERS) would improve quality of life for people with diagnoses of schizophrenia, bipolar, or other psychoses compared to usual care.

Approach

We undertook a randomised controlled superiority trial, randomised at a 1:1 ratio at GP practice level. Participants with diagnoses of schizophrenia, bipolar or other psychosis received either the PARTNERS intervention or usual care. Our primary outcome was quality of life, measured using the Manchester Short Assessment of Quality of Life (MANSA) at 9 to 10 months.

Findings

Our trial was conducted in four areas in England. We recruited 39 GP practices and 198 participants. The follow up rate was 86%. Mean change in overall MANSA score did not differ between the groups (estimated fully adjusted between-group difference 0.03, 95% CI -0.25 to 0.31; p=0.819). We also found no difference for any secondary measures. Safety outcomes (e.g. crises, acute episodes) did not differ between those receiving and not receiving the intervention. While the costs of intervention and control were similar there is insufficient evidence to draw conclusions about the overall cost-effectiveness of PARTNERS.

Consequences

While PARTNERS was not shown to be superior to usual care, the change to PARTNERS care was not shown to be unsafe. Therefore, although collaborative care may not improve patient outcomes compared to usual care, it might still be considered an appropriate method of care to operationalise the current UK policy changes. Key components of the PARTNERS model could be developed further and tested to this end.

Matthew Ridd - University of Bristol

Amitriptyline for the prevention of post-herpetic neuralgia (ATHENA): study protocol

Sian Wells, Stephanie MacNeill, Jess Frost, Jodi Taylor, Oliver van Hecke, Robert Johnson, Anthony Pickering, Rebecca Kandiyali, Kirsty Garfield, Jonathan Banks, Julie Clayton, Lorelei Hunt, Ioana Fodor, Vikki Wylde, Alastair Hay, Hazel Everitt

Problem

Around 20% of people with Herpes Zoster (HZ or shingles) develop post-herpetic neuralgia (PHN), which can be difficult to treat and has a substantial impact on the quality of life of those affected. Our study will determine the clinical and cost-effectiveness of prophylactic low-dose amitriptyline for the prevention of PHN, as previously reported in a small RCT (Bowsher 1997).

Approach

Design: Multi-centre, individually randomised, pragmatic two arm placebo-controlled superiority trial. Recruitment: Patients ≥50 years, diagnosed by their GP with HZ within 144 hours of rash onset, and no contraindication to taking amitriptyline. Assuming 20% PHN in control and a relative risk reduction of 45%, with a 20% loss to follow-up, 846 participants will be required to detect a benefit from amitriptyline on a binary outcome for PHN (present/absent) at 90 days, with 90% power. Intervention: Amitriptyline 10-30 mg or matching placebo, self-titrated, for 70 days. Nested qualitative study: Interviews with ~20 GPs and ~45 participants, to support and optimise trial delivery and understand the acceptability of the intervention Study Within A Trial: GP surgeries will be cluster-randomised (1:1) to evaluate a practice-level education package, designed to facilitate early diagnosis of shingles. Health economic analysis: Primary analysis will present both cost-effectiveness and cost-utility analysis from an NHS/personal social services perspective.

Findings

Primary outcome: presence/absence of PHN (≥3/10 on numerical rating scale of average pain in last 24 hours, Zoster Brief Pain Inventory) at 90 days after rash onset. Secondary outcomes: worst/least/current pain; quality of life (ZBPI and EQ-5D-5L); frailty (Tilburg Frailty Indicator); mental health (PHQ9 and GAD7); medication use; NHS resource use (GP appointments, prescriptions and referrals; out-patient attendance and hospital treatment); masking (Bang Blinding Index); side-effects and adverse events.

Consequences

If starting amitriptyline early on does help, it is a cheap medicine that would prevent prolonged, difficult-to-treat pain for thousands of people. However, amitriptyline commonly causes side-effects such as dizziness, dry mouth and constipation. It can also cause problems when used together with some other medications. This study is needed so we can be sure that any benefits outweigh harms.
Funder: NIHR HTA (NIHR129720)

Penny Seume - Centre for Academic Primary Care, Bristol Medical School: Population Health Sciences, University of Bristol

A more efficient approach to randomised controlled trials in primary care using routinely collected practice-level data

Peter S Blair, Jenny Ingram, Clare Clement, Grace Young, Jodi Taylor, Christie Cabral, Patricia J Lucas, Elizabeth Beech, Jeremy Horwood, Padraig Dixon, Martin Gulliford, Nick A Francis, Sam Creavin, Athene J Lane, Scott Bevan & Alastair Hay

Problem

Conducting randomised controlled trials (RCTs) in primary care is challenging, especially when recruiting patients during time-limited consultations. Selecting patients with less complex needs or practices with experience in research activities can increase bias, and physical access to patient's notes is costly and time-consuming. A more light-touch approach, with practice-level intervention adoption, avoiding recruitment of individuals, is possible. The CHICO (CHIldren's COugh) cluster RCT aimed to reduce antibiotic prescribing in children presenting with respiratory tract infection and cough, using a practice systems' integrated intervention and routinely collected data (electronic health records) at CCG level as the primary outcome.

Approach

The change from a traditional patient-level research design in our previous feasibility RCT to a light touch practice-level design used in the CHICO RCT, provided an opportunity to look at the barriers and facilitators to a more efficient approach impacting on practice recruitment, engagement, understanding of research and data collection. The CHICO study used available routine data and worked with Clinical Commission Groups (CCGs) and Clinical Research Networks (CRNs) in England (with whom we conducted 5 semi-structured interviews analysed using the framework approach).

Findings

The 15 CRNs were helpful in recruiting 294 practices (95% of our target) representing 336,102 registered 0-9 year-olds (5% of 0-9 year-olds in England). Recruitment took 24 months rather than the intended 12 months due to delays in obtaining agreement from 47 CCGs (providing the co-primary outcomes) and due to the COVID-19 pandemic. Engagement with CCGs and understanding of their role in research was variable. The co-primary outcomes of dispensed antibiotics and hospitalisation rates for our target population were provided by the CCGs and largely complete. Installation of the intervention was relatively straight-forward although the impact of system provider updates and variation in experience of system users required extended support for some practices. The merging of CCGs and practices during the trial needs factoring into the planning and design of any study.

Consequences

The infrastructure for efficiently designed trials within primary care in England is viable and should be promoted where appropriate, particularly where routinely collected electronic health records are available for primary outcomes.

Vanashree Sexton - University of Warwick

Telephone based digital triage in urgent care provision: A routine data analysis of patients' service use and patterns of triage advice

Dr Gary Abel Prof Jeremy Dale Dr Helen Atherton

Problem

Services providing out-of-hours care often use digital triage where staff members use a 'digital triage tool' to help refer patients to appropriate health care services, based on the patient's symptoms. Despite wide adoption by health services, there has been limited research into patterns of use of digital triage, and factors that influence the generated recommendations.

Approach

A cross sectional analysis of anonymised call record data from ~200,000 patients using four English urgent care services between April 2019 and October 2020 was performed. We described patient characteristics and presenting symptoms, as well as investigating factors that influence triage advice generated using regression approaches. The analysis evaluated service use prior to and during the Covid-19 pandemic.

Findings

The call rate was 7% higher after the start of Covid-19 (April - September 2020) compared to the previous year (April - September 2019: 0.93 (0.92 - 0.94), p<0.001). Call rates for male patients were lower than female patients (males: RR: 0.73 CI:0.72 – 0.74; p< 0.001). Call rates were higher in patients living in more deprived areas compared to less deprived areas (most deprived IMD decile: RR:3.15, CI: 3.08 – 3.21; p < 0.001, compared to IMD decile 6). The urgency of triage advice increased with increasing age, with highest urgency advice seen in patients aged over 85. Nearly one third of calls were recommended to "self-care" through digital triage, however these calls were frequently made more urgent by the call taker. The factor that most influenced triage advice urgency was the clinician conducting triage; there was large variation in the frequency of "upgrading" (manual adjustment of advice to make it more urgent) between clinicians.

Consequences

Digital triage is central to telephone-based care and if optimised has potential to improve care for patients whilst reserving the need for face-to-face contact for when it is necessary. This study highlights findings relevant for services and policymakers relating to 1) patterns of service use, for example potential under-use amongst certain sub-groups 2) potential inconsistencies within digital triage tools, and 3) variation between services potentially highlighting areas for training and improvement.

James Sheppard - University of Oxford

The association between antihypertensive treatment and serious adverse events by age and frailty: an observational cohort study of 3.8 million patients followed up for 10 years

Constantinos Koshiaris; Richard Stevens; Richard J McManus; on behalf of the STRATIFY Investigators

Problem

Antihypertensives are effective at reducing the risk of cardiovascular disease, but limited data exist quantifying their association with serious adverse events (SAEs), particularly in older people with frailty. This study examined this association using data from a large database of electronic health records.

Approach

This was a retrospective observational cohort study, utilising data from the Clinical Practice Research Datalink in England. Patients were eligible if they were aged 40 years or older, with a systolic blood pressure reading between 130-179 mmHg and not previously prescribed antihypertensive treatment. Outcomes were defined as hospitalisation or death within 10 years due to hypotension, syncope, falls, fractures, acute kidney injury (AKI), electrolyte abnormalities and gout. The association between antihypertensive treatment and SAEs was examined by cox regression, using propensity score adjustment to adjust for confounding. Subgroup analyses were undertaken by age and frailty.

Findings

A total of 3,834,056 patients, aged 57±12 years, were eligible for the study. Of these, 484,187 (12.6%) were prescribed antihypertensive medication in the 12 months prior to the index date. Antihypertensives were associated with an increased risk of hypotension (HR 1.32, 95%CI 1.29-1.35), syncope (HR 1.20, 95%CI 1.17-1.22), falls (HR 1.23, 95%CI 1.21-1.26), AKI (HR 1.44, 95%CI 1.41-1.47), electrolyte abnormalities (HR 1.42, 95%CI 1.43-1.48) and gout (HR 1.32, 95%CI 1.46-1.52). The absolute risk of SAEs with treatment was very low, ranging from two gout events to twelve AKI events per 10,000 patients treated per year. In older patients and those with severe frailty, this risk was increased up to 116-120 events per 10,000 patients treated per year.

Consequences

Antihypertensive treatment is associated with an increased risk of SAEs, but the absolute risk of harm is very low. However, in older patients and those with severe frailty, this absolute risk is increased and physicians should take this risk into consideration when making prescribing decisions.

David Shotter - Institute of Health Research, University of Exeter Medical School

Deriving alternative explanations for features of cancer

Bianca Wiering Sarah Price Kesri Gajadhar Willie Hamilton Sarah Moore Jose M Valderas Sam Merriel Gary Abel Luke Mounce

Problem

Patients presenting with a feature (i.e. signs, symptoms or abnormal test results) of potentially undiagnosed cancer in primary care may have pre-existing chronic or recurrent conditions that offer a plausible alternative explanation for that feature. For example, cough is a common symptom of both chronic obstructive pulmonary disease and lung cancer. We sought to capture common "alternative explanation" conditions for key features of cancer included in national guidelines, and detail our method for achieving this robustly.

Approach

We first used the National Institute for Health and Care Excellence's (NICE) suspected cancer guidelines (NG12) to identify single features (signs and symptoms) for which expedited clinical action is recommended (e.g. an urgent referral for rectal bleeding). Four GPs independently identified chronic or recurrent conditions that could present with these cancer features. The GPs then met to review the collated list and discuss discrepancies over which alternative explanation conditions should be included. A condition was considered to be an alternative explanation when at least 3 of the 4 GPs agreed on its inclusion. Unanimity was not required in order to catch conditions considered alternative explanations that would be considered by the majority of GPs.

Findings

In total, we identified 73 single features of possible cancer associated with one or more of 33 cancer sites. 500 alternative explanation pairs were selected by the 4 GPs independently, with 343 (68.6%) proposed by at least 2. Following group discussions, 395 pairs were retained, involving 109 unique chronic or recurrent conditions. The median (25th, 75th percentiles) number of alternative explanations conditions of a given cancer site was 10 (4, 31). Colorectal cancer had the most alternative explanation pairs (57), including haemorrhoids, ulcerative colitis and Crohn's disease. The condition providing the most alternative explanations was cirrhosis (14). More common conditions such as obesity (11) and anxiety (11) also frequently provided alternative explanations.

Consequences

These alternative explanations may be used in studies identifying patients whose diagnostic pathway may be affected by an alternative explanation for their cancer feature. These will be made publicly available to facilitate further research in this area.

David Shotter - Institute of Health Research, University of Exeter Medical School

A robust process for generating SNOMED-CT codelists

Bianca Wiering Sarah Price Kesri Gajadhar Willie Hamilton Sarah Moore Jose M Valderas Rob Price Rob Daniels Jess Watson Gary Abel Luke Mounce

Problem

Collated lists of clinical codes underpin the creation of outcome and exposure variables in observational studies of electronic medical records. The Read code thesaurus of clinical terms was retired in April 2016 and replaced by a structured clinical vocabulary (SNOMED-CT). Our studies of the role of comorbidity in cancer diagnosis require new SNOMED-CT codelists for 100 chronic or recurrent conditions, some of which have existing Read codelists created by Payne et al. for the Cambridge Multimorbidity Score (CMS).

Approach

SNOMED-CT codes were identified by searching the code descriptors using comprehensive search terms for each condition. Some conditions required codelists for prescriptions and tests. All drugs indicated for specified conditions (e.g. asthma) were identified using relevant British National Formulary chapter "umbrella" codes in the NHS Dictionary of Drugs and Medical Devices. All search terms and BNF chapters were agreed following independent feedback from two clinicians. Searches were supplemented with pre-existing Read codelists, where available. This was achieved using dictionaries from the Clinical Practice Research Datalink, which have some mapping between Read codes and SNOMED-CT codes. Candidate condition-specific codelists were independently reviewed by two clinicians. Codes selected by at least one clinician were accepted. Information about between-clinician agreement was recorded.

Findings

7,042 codes were originally identified, plus a further 502 after clinician feedback on searches. This gave 7,544 potential codes, with a median (IQR) of 50.5 (18.5, 103.5) per condition. Of these, 4,128 (54.7%) were verified as being related to a condition of interest, with a median (IQR) of 19 (8, 45.5) per condition.

Consequences

We have a repository of robustly constructed and verified SNOMED-CT codelists including 100 clinical features, medical conditions and prescribed drugs for use in observational studies of electronic medical records. These will be freely available online and enable use of the Cambridge Multimorbidity Score in SNOMED coded datasets.

Dr Joshua Smith - University of Bristol, Centre for Academic Primary Care

Understanding the policy landscape of trauma-informed approach in the UK: a qualitative study with healthcare professionals

Elizabeth Emsley, David Martin, Natasha Lewis

Problem

The prevalence and impact of psychological trauma, including the risk of mental and physical sequelae, is widely acknowledged. Awareness of patient retraumatisation in healthcare settings has developed alongside recognition that staff may themselves both have experienced trauma and be at risk of vicarious trauma. A trauma-informed (TI) approach is a framework for a system change intervention, which involves change in organisational culture, creating environments and relationships with clinicians that promote recovery and prevent re-traumatisation. Our systematic review of TI approaches in primary and community mental healthcare identified limited evidence for its effectiveness in the UK, despite endorsement in various policies. Our document analysis found geographical and conceptual variation in how a TI approach is represented in UK policies and the policy-evidence gap. This qualitative study aimed to explore professional perspectives on reasons for this representation.

Approach

We conducted semi-structured interviews with key professional informants at decision making level in a range of organisations, all of whom had experience of developing or implementing a TI approach in healthcare. Interviews were coded in NVivo and analysed using the framework method.

Findings

We interviewed 11 informants from NHS, third and private sector. Stronger representation of TI approaches in policy in some local authorities and devolved nations was attributed to buy-in from passionate local and national leaders at a decision-making level. Patchy implementation in England was attributed to a lack of central leadership and inadequate funding. Whilst the need to maintain flexibility in implementation was recognised, professionals called for harmonisation of TI approaches nationally, political and financial support, contextual tailoring of the framework. Lack of funding and limited capacity of the developers and implementers of TI initiatives can explain the evidence-policy gap.

Consequences

The concept of a TI approach is gaining prominence in the UK, appearing in national and regional policy, with interested decision-makers across sectors. Harmonisation of TI approaches across the country will support effective implementation, alongside efforts to evaluate and build an evidence base for TI healthcare in the UK.

Dr Jane R Smith - Exeter Collaboration for Academic Primary Care (APEx), University of Exeter Medical School

Exploring a whole-practice approach to improving management of at-risk asthma patients: a mixed-methods process evaluation of the At-Risk Registers Integrated into primary care to Stop Asthma crises in the UK (ARRISA-UK) intervention

Ms Rachel Winder, APEx, University of Exeter Medical School Dr Leon Poltawski, APEx, University of Exeter Medical School Dr Stanley Musgrave, Norwich Clinical Trials Unit, Norwich Medical School, University of East Anglia Dr Michael Noble, APEx…

Problem

The ARRISA-UK trial is evaluating whether a GP practice-wide intervention involving staff training and flagging of electronic records reduces emergency attendances, hospitalisations and deaths amongst 'at-risk' asthma patients. A process evaluation aimed to assess intervention fidelity and implementation, elucidate mechanisms of impact and identify contextual factors potentially influencing effectiveness.

Approach

A mixed-methods approach was used to collect and analyse quantitative and qualitative data provided by clinicians, receptionists, dispensing and other staff at intervention group practices before, during and after the ARRISA-UK training and flagging. Analyses of data from study records, online training software, questionnaires and focus groups (conducted at 18 practices) were synthesised using a triangulation protocol to address the process evaluation aims.

Findings

Across all sources, 722 individual staff from 128/139 practices which remained in the study provided data contributing to the process evaluation. Most intervention elements were delivered with high fidelity and all practices met minimum requirements for participation. However, a smaller proportion met optimal standards due to, for example, lower than intended engagement of reception and dispensing staff. Practice action plans prepared following training were generally detailed and included a large number of actions aimed at improving the way staff, and particularly receptionists, managed at-risk asthma patients. Although dissemination of plans could have been improved (particularly to many receptionists and new staff not involved in initial planning), there was evidence of successful implementation of plans at most practices, with reported changes in patient management including enhanced access, improved communication and more pro-active and opportunistic asthma care. Various individual staff- and practice-level mechanisms could explain impacts on patient care, experiences and outcomes reported by some staff. The flag and ensuing receptionist actions appeared instrumental in activating these. Practice characteristics, particularly staff turnover, influenced intervention implementation and sustainability.

Consequences

The ARRISA-UK intervention was successfully delivered and reasonably effectively implemented at most practices, with receptionists playing a key role in instigating actions in response to flags. Though there were areas for improvement, reports of ensuing individual staff- and practice-level changes had potential to improve patient care and outcomes, which ongoing analyses of trial data will assess.

Dr Claire Friedemann Smith - University of Oxford

Optimising GPs' communication of advice to facilitate patients' self-care and prompt follow-up when the diagnosis is uncertain: A realist review of 'safety-netting' in primary care

Dr Hannah Lunn Dr Geoff Wong Dr Brian D Nicholson

Problem

Safety-netting is considered best practice and is very widely used in primary care, but research has shown that it is used in consistently and advice on its effective communication is primarily based on expert consensus.

Approach

Objectives. To produce a programme theory of safety-netting communication in primary care by answering the question: How and why does safety-netting facilitate appropriate self-care and re-consultation, for whom, and under what circumstances? Design. Realist review. Data sources. Five electronic databases, websites of charitable, professional, and government bodies, and grey literature. Eligibility criteria. Any study design, except case reports, assessing outcomes related to understanding and communication of safety-netting advice or risk communication, or the ability of patients to self-care when appropriate and re-consult when necessary. Data extraction and analysis. Characteristics of included documents were extracted into a pre-prepared Excel spreadsheet, and full texts uploaded into NVivo and coded. A random 10% sample was independently double extracted and coded to check for consistency. Coded data was synthesised and its ability to contribute an explanation for the contexts, mechanisms, or outcomes of effective safety-netting communication considered. Draft context, mechanism and outcome configurations (CMOCs) were written by the authors and reviewed by an expert panel of primary care professionals and patient representatives.

Findings

95 documents were included. Our CMOCs and programme theory explain what information safety-netting advice should contain, the importance of ensuring understanding and agreement with safety-netting advice, what additional factors should be considered, and how the safety-netting advice should be documented. We present 15 recommendations to enhance the communication of safety-netting advice and map these onto established consultation models.

Consequences

The effective communication of safety-netting advice relies on understanding the information needs of the patient, barriers to acceptance of the advice, and explanation of the reasons why the advice is being given. Reduced continuity of care, increasing multi-morbidity, and remote consultations represent threats to safety-netting communication.

Pamela Smith and/or Dr Gwenllian Moody - Division of Population Medicine, Cardiff University

Feasibility of a Targeted Intensive Community-based campaign To Optimise Cancer awareness (TIC-TOC)

Dr Julia Townson, Dr Rebecca Cannings-John, Dr Julia Hiscock, Helen Stanton, Eleanor Clarke, Dr Bernie Sewell, Dr Grace McCutchan, Prof Kate Brain

Problem

Rapid Diagnostic Centres (RDC) are being implemented across the UK as one-stop shops to accelerate the diagnosis of vague suspected cancer symptoms. RDCs are designed as a single point of access to multidisciplinary teams, supported by rapid diagnostics. Targeted behavioural interventions are needed to augment RDCs that serve socioeconomically deprived populations who are disproportionately affected by cancer. The aim of this study is to assess the feasibility and acceptability of delivering and evaluating a community-based symptom awareness intervention in an area of high socioeconomic deprivation.

Approach

Intervention materials and messages were co-produced with local stakeholders in Wales. Cancer champions (lay members of the local community) have been trained to deliver intervention messages, and intervention materials are being distributed (e.g. broadcast media, branded pharmacy bags, posters, leaflets) and added to online platforms (e.g. social media, digital billboards in supermarkets). A mixed-methods study will assess the feasibility of delivering the intervention and the feasibility of the intervention evaluation methods. Consent rates and proportion of missing data for questionnaires given to patients (n=189) attending RDCs will be measured and self-reported patient interval (primary outcome) will be assessed. Qualitative interviews will assess intervention acceptability and barriers/facilitators to delivery.

Findings

Recruitment will finish in March 2022. Due to restrictions as a result of the pandemic, our recruitment strategy has been amended to help reduce barriers to remote data collection. To date, 86 individuals have agreed to be contacted about the study with eight participants having completed the questionnaire. Seven qualitative interviews have been conducted.

Consequences

This project will inform a potential future controlled trial to assess intervention effectiveness in reducing the patient interval for vague cancer symptoms. The results will be critical to informing national policy and practice regarding behavioural interventions to support RDCs in highly deprived populations.

Devika Sreejith - University of Southampton

The Views Of Patients And Their Doctors/Nurses About The Use Of Herbal Medicines For The Management Of Type 2 Diabetes – Systematic Review Of Qualitative Studies

Merlin L. Willcox, Evie Andrews

Problem

By 2030 the total number of people with diabetes worldwide is projected to be 366 million. Many patients choose to use herbal medicines for the management of type 2 diabetes. Several herbs are effective for glycaemic control in type 2 diabetes and are less likely to produce side effects that are seen with the use of conventional therapy. It is important to understand how these could contribute to improving self-management of type 2 diabetes.

Approach

Aim: To understand the views of patients and their doctors/nurses on herbal medicines for the management of type 2 diabetes. Databases MEDLINE, EMBASE, CINAHL, SOCIOFILE, and GOOGLE SCHOLAR were searched for qualitative studies in patients with type 2 diabetes about their views on herbal medicines. Papers were double screened on Rayyan and the CASP tool was used for quality appraisal of the included papers. Full texts were imported into Nvivo and were coded using both deductive and inductive approaches. Thematic synthesis was used for data analysis.

Findings

After database screening, 4528 papers were retrieved, of which 22 studies were included. On assessing the quality of these papers, most of them provided valuable evidence supporting the research question. There were 12 studies from high-income countries and 10 studies from low- or middle-income countries. Some of the major barriers to conventional therapies were its side effects, patients' cultural beliefs, their lack of knowledge about modern medicine and its effects. On the other hand, most patients preferred herbal medicine due to lesser side effects, cultural beliefs, influence from family and friends, and availability. In many cultures home remedies which include several herbs, are perceived to be more effective for the management of diabetes and its complications.

Consequences

Understanding the barriers for non-adherence to modern medicine and facilitators for herbal medicines can be useful for health professionals to tailor their advice and treatment to the patients' preferences. Hence our study reveals the attitudes of patients and healthcare professionals from different countries and cultures, towards herbal medicine.

Richard Stevens - University of Oxford

Primary healthcare evaluation in big data bases: opportunities for interrupted time series analysis

Genevieve Monaghan Apostolos Tsiachristis

Problem

Quasi-experimental designs are increasingly accepted in clinical research alongside the use of routinely collected data. This is reflected in the latest guidance of the Medical Research Council on evaluating complex health interventions using, among others, interrupted time series analysis (ITSA). However, time series analysis is rooted in economics and its implementation in large primary care datasets is relatively limited. In this study, we aim to quantify the evidence for first-order autocorrelation in a diverse set of previously published primary care database studies.

Approach

We identified 25 papers that used ITSA on Clinical Practice Research Datalink (CPRD) data, of which 13 papers used monthly time series. We extracted pre-intervention data for analysis. We calculated the autocorrelation function (ACF) and partial autocorrelation function (PACF) of the data after removing trends with (a) first-order differencing or (b) linear regression. Monthly indicators were used to adjust for seasonality.

Findings

After excluding 3 studies from which we could not extract sufficient data, we obtained data from 10 published evaluations, of which 9 used a prescriptions outcome and 1 used an incidence outcome. When using differencing to detrend the data, 9 of 10 time series showed statistically significant (negative) first-order autocorrelation. When using linear regression to detrend the data, 1 of 10 residual time series showed significant (positive) first-order autocorrelation. If correction for seasonal trends was omitted, 5 of 10 residual time series showed significant first-order autocorrelation.

Consequences

Data used in healthcare evaluations may be simpler in structure than economic data and more often suitable for simpler analysis methods such as ordinary least squares regression. When detrending the data, differencing may be less helpful than in many economic data sets. However, adjustment for seasonality remains essential.

Dr Alun Surgey - North Wales Centre for Primary Care Research, Bangor University

ThinkCancer! Results from a phase 2 randomised controlled feasibility trial

Dr Annie Hendry, Ms Stefanie Disbeschl, Mr Matthew Jones, Dr Nia Goulden, Ms Bethany Anthony, Prof Nefyn Williams, Prof Richard Neal and Prof Clare Wilkinson

Problem

Diagnostic delay for patients with cancer generally leads to poorer outcomes. “ThinkCancer!” is a novel evidence based complex behaviour change intervention aimed at whole practice teams. A multicomponent workshop includes educational sessions for both clinical and non-clinical staff and a convenor led quality improvement session to design a bespoke practice safety netting plan. Nomination of a safety netting champion is encouraged to support implementation and change.

Approach

To evaluate ThinkCancer!, a randomised controlled feasibility trial involving 30 primary care teams in Wales was undertaken to assess feasibility criteria, select primary and secondary outcome measures and iteratively adapt the intervention. A mixed methods process evaluation included qualitative interviews and Normalisation Process Theory (NPT) evaluation of embedding and sustainment of the intervention through the use of a modified NoMAD tool questionnaire. An economic evaluation is ongoing. Due to Covid-19 the intervention was adapted to be delivered virtually.

Findings

30/30 (100%) practices were recruited from 45 expressions of interest and 24/30 (80%) retained at 6 months, with 19/21 (90%) interventions delivered, meeting our “Go” criteria (Red:Stop, Amber:Review, Green:GO). Data collection also met “Go” with 86% and 71% data obtained at baseline and follow up respectively. Intervention fidelity and reach improved with time due to dissemination of information through the practice. Findings from qualitative interviews highlight participant views on all aspects of the ThinkCancer! intervention and its implementation alongside contextual factors and practice culture. This, in addition to workshop feedback, NoMAD results and data regarding primary and secondary outcome measures will be presented in further detail.

Consequences

The results and lessons learned will inform the final iteration of the ThinkCancer! workshop and the design and delivery of a definitive phase 3 pragmatic trial to assess the effectiveness and cost effectiveness of this novel behaviour change intervention. Delivery at scale with additional opportunities for participants to receive the intervention will improve fidelity and reach and may allow for cross pollination of best practice between practice teams.

Amelia Talbot - Nuffield Department of Primary Health Care Sciences, University of Oxford

Experiences of Treatment-Resistant Mental Health Conditions in Primary Care: A Systematic Review and Thematic Synthesis

Charlotte Lee, Sara Ryan, Nia Roberts, Kamal Mahtani, Charlotte Albury

Problem

Most adults fail to achieve remission from common mental health conditions based on pharmacological treatment in primary care alone. There is no data synthesising the reasons. This review addresses this gap through a systematic review and thematic synthesis to understand adults' experiences of using primary care for treatment-resistant mental health conditions (TRMHCs). We use the results to produce patient-driven recommendations for better support in primary care.

Approach

Eight databases were searched from inception to December 2020 for qualitative studies reporting research on the experience of people with TRMHCs in primary care. We included the following common mental health conditions as defined by NICE: anxiety, depression, panic disorder, post-traumatic stress, and obsessive-compulsive disorder. Studies were independently screened by two reviewers. Eligible studies were analysed using an aggregative thematic synthesis.

Findings

Eleven studies of 4,456 were eligible. From these eleven studies, 4 descriptive themes were developed to describe cyclic care that people with TRMHCs experienced in primary care. In the first stage, people preferred to self-manage their mental health and reported barriers that prevented them from seeing a GP (e.g., stigma). People felt it necessary to see their GP only when reaching a crisis point. In the second stage, people were usually prescribed antidepressants, but were skeptical about any benefits it had to their mental health. In the third stage, people self-managed their mental health (e.g., through adjusting antidepressants dosage). The fourth stage described the reoccurrence of mental health and resultant need to see a GP again. The high-order theme, ‘breaking the cycle,’ described ways in which this cycle could be broken including via continuity of care

Consequences

People with TRMHCs and GPs could break cyclic care by having a conversation about what to do when antidepressants fail to work. This conversation could include using non-medicinal therapies like mindfulness and counselling.

Peter Tammes - University of Bristol, Centre for Academic Primary Care (CAPC)

The association of continuity of primary care with initiating prescribing and treatment adherence for cardiovascular medication: a cohort study among patients in England

Chris Salisbury, Richard Morris, Rupert Payne

Problem

Continuity of care and medication use are both crucial aspects of primary healthcare. However, the relationship between them has not been studied in detail. The study's aim is to test the hypotheses that better continuity of care is associated with more appropriate medication prescribing initiation and medication adherence, and that over-familiarity results in suboptimal medication use and perfect continuity is not associated with more appropriate prescribing or better adherence than good continuity.

Approach

Random sample of 300,000 patients aged 30+ in 2017 within 83 English GP practices from the CPRD dataset. Patients were assigned to a randomly selected index date in 2017 on which medication use and continuity of care were assessed. The above hypotheses were tested in patients in five specific cardiovascular-related therapeutic areas. The main outcomes measures were (A) Prescription for statins (separately for primary and secondary prevention), anticoagulants, antiplatelet agents, and antihypertensives covering the patient's index date, and (B) adherence to these treatments estimated using medication possession ratio. Continuity of Care index score was calculated for 173,993 patients with 4+ GP consultations two years prior to their index date and divided into five categories: absence of continuity, below-average, average, above-average and perfect continuity. Adjusted associations between continuity of care, medication use and adherence were examined using logistic regression.

Findings

Patients with above-average continuity were more likely being prescribed medications. In comparison, patients with absence of continuity had reduced prescribing, most notably for antiplatelet agents (OR 0.56, 95%CI 0.35-0.88) and antihypertensives (OR 0.53, 95%CI 0.43-0.65). Patients with perfect continuity were more likely prescribed medications than those with above-average continuity, most notably statins (primary prevention OR 1.24, 95%CI 1.02-1.50; secondary prevention OR 1.34, 95%CI 1.08-1.65), and antiplatelets (OR 1.28, 95%CI 1.02-1.62). Continuity of care was generally not associated with medication adherence, except for statins for secondary prevention: absence (OR 0.59, 95%CI 0.31-1.15), below-average (OR 0.86, 95%CI 0.65-1.11) and average (OR 0.75, 95%CI 0.61-0.92) continuity were associated with reduced adherence compared to above-average continuity.

Consequences

Better continuity of care is associated with increased rates of prescribing important cardiovascular medication but does not appear to be related to better adherence to this medication.

Pui San Tan - Nuffield Department of Primary Care Health Sciences, University of Oxford

Temporality of body mass index, blood tests, comorbidities, and medication use as early markers for pancreatic ductal adenocarcinoma (PDAC): a nested case-control study

Cesar Garriga, Ashley Kieran Clift, Weiqi Liao, Martina Patone, Carol Coupland, Rachael Bashford-Rogers, Shivan Sivakumar, Julia Hippisley-Cox

Problem

Prior studies identified clinical factors associated with increased risk of pancreatic ductal adenocarcinoma (PDAC). However, little is known regarding their time-varying nature, which could inform earlier diagnosis. This study assessed temporality of body mass index (BMI), blood-based markers, comorbidities, and medication use with risk of PDAC.

Approach

We performed a population-based nested case-control study of 28,137 PDAC cases and 261,219 matched-controls in England using primary-care records with linkages to cancer, hospital and death registry. We evaluated five-year trends of BMI and blood-based markers prior to index date in individuals with recent-onset, long-standing, and no type-2 diabetes. Associations of PDAC with comorbidities and medication use by onset time were evaluated using odds ratios and 95% confidence intervals.

Findings

Across recent-onset, long-standing and no type-2 diabetes status, five-year trends showed biphasic BMI decrease and HbA1c increase prior to PDAC; early-gradual phase begin approximately 2-3 years prior followed by late-rapid phase beginning approximately 1-2 years prior to PDAC. Liver markers and blood counts (white blood cell, platelet) showed monophasic rapid-increase approximately 1 year prior to PDAC. Further, recent pancreatic cyst, pancreatitis, type-2 diabetes, venous thromboembolism and initiation of certain glucose-lowering and acid-regulating therapies prior to PDAC were associated with highest risk of PDAC.

Consequences

Across type-2 diabetes status, BMI and HbA1c derange biphasically with early-gradual changes 2-3 years prior followed by late-rapid changes 1-2 years prior to PDAC. Liver markers and blood counts derange monophasically from 1 year prior to PDAC. Profiling these in combination with their temporality could inform earlier PDAC diagnosis.

Dr Tom Thompson - Faculty of Health, University of Plymouth, Plymouth Science Park, Plymouth, PL6 8BX, UK tom.thompson@plymouth.ac.uk

The influence of socioeconomic status on engagement and response to a behavioural intervention to support people wishing to reduce but not quit smoking and increase physical activity (The TARS trial)

Dr Adam Streeter Dr Lynne Callaghan Ms Jane Horrell Prof Adrian H Taylor Miss Jade Chynoweth Dr Wendy Ingram Prof Michael Ussher Prof Paul Aveyard Prof Rachael L Murray Prof Tess Harris Prof Siobhan Creanor

Problem

Socioeconomic status (SES) plays an important role in both physical and mental health, with lower socioeconomic groups having higher levels of clustering in unhealthy behaviours (e.g. smoking, physical activity, alcohol use, and poor diet) and accessing services at lower rates than those in higher groups. Often, public health messages and systems can be inappropriate or out of reach for people in lower socioeconomic groups leading to poor engagement and outcomes.

Approach

TARS was an NIHR funded RCT with four sites (Plymouth, London, Oxford and Nottingham) that recruited 915 people (through primary care and the community) wishing to reduce their smoking but not quit whilst supporting positive changes in physical activity. 457 participants were randomised to receive the TARS intervention – an 8 week one-to-one client centred motivational intervention designed to empower the participants by targeting changes in confidence and importance for changing behaviour.. Quantitative data were collected at 3 and 9 months, and an embedded mixed methods process evaluation collected qualitative data throughout. Postcodes were used to identify an Index of Multiple Deprivation score, and hence and individual's level of socio-economic deprivation.

Findings

Those living in more deprived areas demonstrated higher rates of reducing cigarettes smoked by at least 50% compared to those in less deprived neighbourhoods. Further exploratory analysis will examine the impact of deprivation on engagement levels and other secondary outcomes. The focus of reducing smoking was seen as appealing, empowering and engaging by people who have had negative experience of more traditional stop smoking services in the past.

Consequences

The focus on smoking reduction rather than cessation increased the appeal and reach of the intervention to groups who would not normally engage with smoking services, as it was seen as less threatening and more achievable. The greater gains seen in participants living in more deprived areas suggests the framing of the behaviour change goal is important, as well as the importance of a non-judgemental, client centred, and empowering intervention. The methods and design shows promise for harm reduction, positive behaviour change, and engagement among those living in more deprived areas.

Bethan Treadgold - University of Exeter

Informing the revision of Clinical Excellence Awards (INCEA): qualitative interviews with current assessors and other key stakeholders on defining and scoring excellence

Dr Emma Pitchforth, Associate Professor Gary Abel, Dr Rob Froud, Jon Sussex, Lucy Hocking, Professor John Campbell

Problem

A scheme to reward senior doctors making an outstanding contribution to the NHS has been in place since 1948. Following review and ongoing consultation, a new National Clinical Excellence Awards (CEA) scheme will be implemented from 2022. To inform a revised scoring scheme, the aim of this research was to understand how key informants would define clinical excellence, differentiate between levels of excellence in scoring, and elaborate non-discriminatory approaches.

Approach

Semi-structured qualitative interviews were conducted with 25 key informants (July – August 2021), including current assessors and representatives of professional organisations. Interviews were guided by a topic guide informed by a literature review, the aims of the study, and input from a public advisory group. Interviews were via online platforms or telephone, audio-recorded, and transcribed. Transcripts were analysed inductively using a six-phase reflexive thematic approach.

Findings

Informants expressed diverse views on what constitutes 'clinical excellence' and what should be rewarded, which included going 'over and above' job expectations, making a difference to patients and the NHS, and demonstrating the impact of excellence. Informants noted too the importance of recognising the context and setting in which excellence is achieved. In scoring excellence, informants provided inconsistent definitions for the baseline measurement score of excellence, and varying preferences for a ten-point measurement scale to replace the current four-point scale. Informants who were assessors detailed several factors that influence how they score excellence, and described their personal strategies to ensure a fair assessment, which encompassed recognising the diversity of job roles in applications and variation in presentation of evidence, and in demonstrating awareness of assessor unconscious bias. Informants did not think that the scoring system itself would disadvantage any particular groups of doctors but described perceived inequities in being able to produce evidence according to particular specialty, contexts and working hours. There was also concern that certain groups of doctors may be less likely to apply because of the self-nomination process.

Consequences

Findings informed the content of the subsequent component of the INCEA project, an online Delphi, undertaken with the aim of generating consensus around defining clinical excellence and formulating the revised scoring system for 2022.

Dr Julian Treadwell - Nuffield Department of Primary Care Health Sciences, University of Oxford.

General Practitioners' use and understanding of the quantitative benefits and harms of treatments for common long-term conditions: a qualitative interview study.

Dr Joanna Crocker Dr Alexander Rushforth Prof. Kamal Mahtani Prof. Trish Greenhalgh

Problem

To support shared decision making and improve the management of polypharmacy, it is recommended that GPs take into account quantitative information on the benefits and harms of treatments. Quantitative evidence shows GPs' knowledge of this is low.

Approach

To explore GPs' attitudes to and understanding of the quantitative benefits and harms of treatments for long term conditions, we conducted semi-structured interviews with 15 GPs across the UK. We used a framework approach for analysis.

Findings

Participants described knowing or using quantitative information on benefits and harms for only a few treatments. There was awareness of this knowledge deficit coupled with low confidence in statistical terminology. Some perceived an absence of this information as an important barrier to optimal care, others were content to follow guidelines. In the absence of this knowledge, other strategies were described to individualise treatment decisions. The idea of increasing the use of quantitative information on the benefits and harms of treatment appealed to most, with imagined benefits for patients and themselves. However, potential barriers were described: a need for accessible information that can be understood and integrated into real-world practice, system factors and communication challenges.

Consequences

GPs are aware of their knowledge deficit with regard to an understanding of quantitative benefits and harms of treatments. Most were positive about the idea of increasing their use of this in practice but described important challenges which need to be considered when designing solutions.

Julian Treadwell - Nuffield Department of Primary Care Health Sciences University of Oxford

General Practitioners' understanding of the benefits and harms of treatments for long-term conditions: an online survey.

Geoff Wong Coral Milburn-Curtis Benjamin Feakins Trish Greenhalgh

Problem

GPs prescribe multiple long term treatments to their patients. For shared clinical decision-making, understanding of the absolute benefits and harms of individual treatments is needed. International evidence shows that doctors' knowledge of treatment effects is poor but this has not been researched among GPs in the UK.

Approach

To measure the level and range of the quantitative understanding of the benefits and harms of treatments for common long-term conditions among GPs, we conducted an online cross-sectional survey distributed to GPs in the UK.

Findings

443 respondents were included in the analysis. Most demonstrated poor (and in some cases very poor) knowledge of the absolute benefits and harms of treatments. Overall, an average of 11% of responses were correct allowing for +/- 1% margin in absolute risk estimates and 23% allowing a +/- 3% margin. 88% of responses overestimated and 9% of responses underestimated treatment effects. There was no tendency to differentially overestimate benefits and underestimate harms. 65% of GPs self-reported low to very low confidence in their knowledge.

Consequences

GPs' knowledge of the absolute benefits and harms of treatments is poor, with inaccuracies of a magnitude likely to meaningfully affect clinical decision making and impede conversations with patients regarding treatment choices.

George Trilloe - Cardiff University

The association of multimorbidity and polypharmacy with symptom severity and number of urodynamic diagnoses in men presenting with lower urinary tract symptoms in primary care: cross sectional study

Dr Emma Thomas Jones, Professor Adrian Edwards, Bethan Pell

Problem

In the United Kingdom Lower Urinary Tract Symptoms (LUTS) are very common, affecting roughly 3.4 million men. These symptoms negatively affect the quality of life of patients and are frequently described as "bothersome". Despite this there is sparse evidence regarding how comorbidities and polypharmacy are associated with LUTS severity in men, and eventual LUTS diagnosis derived from the gold standard of invasive urodynamics.

Approach

Men with LUTS in the UK presenting in primary care were recruited from three locations: South Wales, Newcastle and Bristol. Three hundred and fifty participants were recruited to the study. Demographic characteristics were collected and participants were asked to fill in two LUTS severity scales. These were the International Prostate Symptom Score (IPSS), and the International Consultation on Incontinence Questionnaire Short Form (ICIQ-SF). Invasive urodynamic investigations were then undertaken to diagnose the cause of the participants' LUTS. Univariate analysis followed by multivariate logistic and linear regressions were undertaken to analyse these variables

Findings

The diagnosis with the highest prevalence rate was detrusor overactivity (DO) at 73.7%. Bladder outlet obstruction (BOO) had a prevalence rate of 47.1% and the diagnosis with the lowest prevalence rate was detrusor underactivity (DU) at 40.9%. Increasing age was associated with DO, BOO and total overall number of urodynamic diagnoses but not with DU. The presence of comorbidities was associated with DO but not with BOO or DU. Being a current smoker and having polypharmacy were significantly associated with a higher score on both the IPSS and the ICIQ-SF severity scales.

Consequences

In this study a number of factors produced a statistically significant association with LUTS diagnosis and LUTS severity in men. These findings provide insight into the patterns of presentation of LUTS and could aid the development and adaptation of decision support tools for tailored management of men presenting to primary care with LUTS.

Philip Turner - Nuffield Department of Primary Care Health Sciences, University of Oxford Thames Valley and South Midlands CRN*

Rapid community point-of-care testing for COVID-19 (RAPTOR-C19): diagnostic performance of two rapid antigen detection tests for SARS-CoV-2 in symptomatic patients in community settings.

Brian Nicholson, Thomas Fanshawe, Lazaro Mwandigha, Julian Sherlock, Alice Williams, Kirsty Jackson, Kathryn Lucas*, Heather Kenyon*, Jennifer Hirst, Mary Logan, Alexandra Deeks, Helen Bohan, Simon de Lusignan, Olga Zolle*, Uy Hoang, Abigail Moore, Anna S

Problem

Point-of-care tests (POCTs) for SARS-CoV-2 provide rapid results, with the potential to inform immediate advice about self-isolation and to guide treatment. Whilst there has been an unprecedented rate of development of POCTs for SARS-CoV-2 by the diagnostics industry, data on test performance in clinical settings has been lacking, with a focus on the characterisation of assays on the laboratory bench to satisfy regulatory requirements with minimal performance data provided from the intended context of use.

Approach

We conducted a prospective observational parallel diagnostic accuracy study of POCTs for active infection in adults and children with suspected SARS-CoV-2 attending community settings, including GP surgeries and community hubs in England, and testing centres in Wales. The index tests were both SARS-CoV-2 lateral flow rapid antigen detection tests, with results interpreted by operator and by a small electronic reader system respectively. Index tests required swab samples from the nasopharynx and anterior nares, with samples processed immediately in line with manufacturer information for use. Nose and throat swab samples were also collected for the reference standard laboratory SARS-CoV-2 real-time reverse-transcriptase polymerase chain reaction (rRT-PCR) assay, which was carried out by Public Health England. All POCT procedures were carried out by clinical staff on site and not by specialist laboratory personnel.

Findings

Sequential symptomatic patients (n=763) were recruited until a minimum of 150 positive cases had been reached for each assay, in line with the requirements of the Target Product Profile (TPP) for SARS-CoV-2 POCT developed by the Medicines and Healthcare products Regulatory Agency (MHRA). We estimated the sensitivity and specificity of each test and compared these estimates against the MHRA TPP minimum performance criteria of 'Acceptable' sensitivity of greater than 80% (within 95% confidence intervals of 70-100%), and specificity greater than 95% (within 95% confidence intervals of 90-100%). Full details of analysis outcomes will be available for presentation.

Consequences

We will discuss the performance of the tests in the context of clinical utility, specifically with consideration to the capacity of the candidate tests to rule in or rule out SARS-CoV-2 infection in symptomatic patients presenting in community healthcare settings and the consequences thereof.

Yousaf U - 1. Primary Care Research Centre, University of Southampton, UK 2. Nuffield Department of Primary Care Health Sciences, University of Oxford, UK 3. University of Manchester, UK 4. University of Exeter, UK

The Effectiveness of Interventions to Reduce the Transmission of Acute Respiratory Infections in Care Homes: A Systematic Review

Dalton S, Stuart B, Pluddemann A, Panagioti M, Santalova A, Lavu D, Moore M, Willcox ML

Problem

Care homes house some of the most vulnerable people in our society. The recent COVID-19 outbreak has highlighted how dangerous an outbreak of a respiratory illness can be in a care home/facility.

Approach

We searched 4 databases (CINAHL, Medline, Embase and Cochrane Central) for randomised controlled trials (RCTs) of interventions to prevent transmission of ARIs in care homes (excluding vaccines). Titles and abstracts, then full texts of selected articles, were double screened to select relevant studies. Data was extracted by two independent reviewers.

Findings

2980 papers were identified from the four databases. Through double screening and elimination, 15 met our inclusion criteria. Prophylaxis with antivirals during outbreaks appeared to be the most effective intervention. Three trials assessed the efficacy of prophylaxis during influenza outbreaks. Oseltamivir prophylaxis for 6 weeks reduced incidence of influenza by 92% compared to placebo. Oseltamivir prophylaxis for 10 days also reduced incidence of influenza when compared to treatment of cases alone (Rate ratio 0.63, 95% CL 0.47-0.84). One small trial suggested that Zanamivir may prevent influenza. The antiviral Bamlanivimab reduced transmission of COVID-19 compared to placebo when administered prophylactically to staff and residents of skilled nursing facilities for 7 days after one confirmed COVID19 case: odds ratio, 0.43 [95% CI, 0.28-0.68]. Vitamin D and E supplementation also proved effective. Residents receiving high dose vitamin D supplementation had fewer ARIs compared to those receiving a standard dose (incidence rate ratio [IRR] 0.60; 95%CI 0.38–0.94). Fewer residents taking vitamin E acquired ARIs compared to those taking placebo (risk ratio=0.88, 95% CI=0.75– 0.99). Hand hygiene interventions reduced incidence of influenza-like illness in one trial, and of pneumonia in one trial but not in a second trial. Probiotics were studied in two trials and herbal medicines in one; neither found a statistically significant reduction in the risk of ARIs. However, their sample sizes were too restricted to form a valid conclusion

Consequences

The most effective measures were hand hygiene, vitamin supplementation (D and E) and antiviral prophylaxis during outbreaks

Dr Ross Watkins - University of Exeter

The weighting game: what online forums reveal about the patient experience of accessing weight management services

Professor Jonathan Pinkney; Dr Mark Tarrant; Mia Alexander; Dr Jenny Lloyd; Dr Lorna Burns; Professor Rod Sheaff; Dr Dawn Swancutt

Problem

There is currently a global obesity epidemic. Severe obesity (BMI>40) reduces life expectancy due to its association with developing comorbidities (e.g., diabetes, cancer) and greatly impairs quality of life. The NHS provides weight management services for people with severe obesity and evidence suggests that patients who are able to complete these programmes achieve better health outcomes than those who do not. Yet, despite their best efforts, many services struggle to deliver effective care. Beyond questions about how treatment programmes are organised, key uncertainties remain around patient pathways into weight management services. For example, while some people with severe obesity gain access to services through self-referrals, the majority access services via their GP. The implications of patient disorientation through the referral process for delivery and effectiveness of services is unknown, and therefore constitutes an important gap in understanding.

Approach

In this cross-sectional observation study using qualitative content analysis, patients' experiences of accessing weight management services were explored. Using web search engine Google with keywords and web address (URL) identifiers, a variety of public online platforms used by people with severe obesity were sourced. Within these platforms snowball sampling and search strings were used to identify threads relevant to peoples' experiences of accessing specialist weight management services (n=56). These were recorded in a document, read and re-read. Through coding of meaningful units of text, themes were constructed.

Findings

Four themes were established during data analysis: (i) Negotiating the system and playing the waiting game; (ii) Talking at cross-purposes – miscommunication between GPs and patients; (iii) Prevarication – finding the right time to talk about weight; and (iv) Familiarity with specialist weight management services. A sense of weight stigma was an overarching theme, with patients intimating that pathways into the service were shrouded by negative perceptions of obesity and a feeling that limited primary care resources were focussed on addressing acute care needs.

Consequences

Clear and timely patient referral to specialist weight management services may reduce the patient anxiety and confusion reported in online forums. Addressing weight stigma amongst patients who have severe obesity could potentially bridge the gap they perceive in access to care.

Dr Jessica Watson - University of Bristol

'I guess I'll wait to hear': a qualitative study of systems for communicating blood test results

Chris Salisbury, Penny Whiting, Willie Hamilton, Jon Banks

Problem

Rates of blood testing in primary care are rising. Communicating blood test result generates significant workload for GPs and practice staff. New systems to communicate test results are becoming available, including text message and online communication, with potential benefits and risks. This study explored doctors' and patients' expectations and experience of systems of blood testing in order to improve communication and promote patient engagement.

Approach

Twenty-eight patients, and nineteen GPs from six general practices were recruited, reflecting a range of socioeconomic and demographic characteristics. Patients were interviewed at two time points: (a) at or soon after their blood test and (b) after they had received their test results. We also undertook interviews with the GPs who requested the tests. Eighty qualitative interviews were undertaken in total; 54 patient interviews and 26 GP interviews. This gave us paired data which enabled to us to examine areas of congruence and dissonance between GPs' and patients' experience of test communication.

Findings

Methods of communicating test results varied between doctors and were based on habits, unwritten heuristics, and personal preferences rather than protocols. Doctors generally assumed that patients knew how to access their test results, whereas patients were often uncertain and used guesswork to decide when and how to try to access their tests. Patients and doctors often assumed that the other party would make contact, with potential implications for patient safety. Text message and online methods of communication have benefits, but were perceived by some patients as 'flippant' and 'confusing'. Delays and difficulties obtaining and interpreting test results can lead to anxiety and frustration for patients.

Consequences

Current systems of test result communication are complex and confusing, often based on habits and routines rather than clear protocols. Dealing with an increasing volume of test results in a digital era requires careful systems and an appreciation of patients' perspectives. This has important implications for improving patient centred care and patient safety.

Bianca Wiering - University of Exeter

Exploring the impact of comorbidities on cancer stage at diagnosis and 30 day mortality; a retrospective cohort study

Luke Mounce, Sarah Price, David Shotter, Jose M Valderas, Sam Merriel, Sarah Moore, Willie Hamilton, Gary Abel

Problem

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 are more likely to be diagnosed with late-stage cancer or die within 30 days of cancer diagnosis.

Approach

We used linked primary care (Clinical Practice Research Datalink), secondary care (Hospital Episode Statistics) and cancer registration (NCRAS) data. Patients diagnosed with any of 21 stage-able common cancers during 2012-2016 were included. A count of comorbidities was based on medical records for conditions included in the quality and outcome framework. 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.

Findings

119,667 patients were included. Preliminary results suggest that 8.7% (n=10,408) of patients died within 30 days of their diagnosis and 50.5% (48,060/95,149) of patients were diagnosed with late-stage cancer. There was evidence that stage and 30-day mortality were independently associated with age, gender, deprivation, smoking history and the presence of comorbidities ($p<0.001$), with male, older, and more deprived patients more likely to be diagnosed at late-stage or die within 30 days of diagnosis. Patients with several comorbidities and smokers were less likely to be diagnosed at late-stage or die within 30 days. For individual cancers there was no evidence that comorbidities were associated with late-stage and only for X and Y cancers is there any evidence of detriment in 30-day mortality.

Consequences

Although some patient groups were more likely to be diagnosed with late-stage cancer and die within 30 days, 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 specific comorbidities or morbidity burden better explain the relationship between multi-morbidity and cancer outcomes

Christopher R Wilcox - Centre for Primary Care Research, University of Southampton

The BLIS study: protocol for a randomised feasibility study assessing compliance, acceptability and colonisation with different dosing regimens of the probiotic supplement Streptococcus salivarius K12 (Bactoblis®) in adults

Merlin Willcox, Nick Francis, David Cleary, Stuart Clarke, Beth Stuart, Rebecca Anderson, Michael Moore, Paul Little

Problem

Acute sore throat/tonsillitis is a common reason for primary care consultation and inappropriate antibiotic prescription. Finding alternative management strategies is important. One area of research is the role of probiotics (live, non-pathogenic bacteria). Streptococcus salivarius is the predominant coloniser of the oral cavity, and the probiotic SsK12 has been shown to produce antimicrobial peptides against many of the pathogenic bacteria implicated in sore throats (including Streptococcus pyogenes), as well as anti-viral properties. Recent studies show that SsK12 (as an oral lozenge) is well-tolerated, and may have a role as a prophylactic therapy. However, there remains uncertainty with regards to the optimal dosing required to establish colonisation in the oral cavity. With a view to conducting a large-scale randomised controlled trial in the future, we have set out to evaluate two different dosing regimens of Ssk12.

Approach

We will remotely recruit 50 adults with a history of >2 recent sore throats. Participants will be randomly allocated to one of two different SsK12 dosing regimens, and self-taken throat swabs will be taken at baseline and at intervals throughout the study. Our primary outcomes are [1] the acceptability of these regimens, and [2] the prevalence of colonisation with SsK12 and how long effective colonisation is maintained (as determined by PCR and culture).

Findings

These results will provide valuable insight into the optimal dosing strategy of SsK12, as well as useful data on the feasibility of remote recruitment and return of self-taken throat swabs as part of a future randomised study - an important aspect of post-COVID research trials.

Consequences

We will present this protocol, as well as our preliminary results, at the time of SWSAPC 2022.

Rachel Winder - University of Exeter Primary Care Research Group

Di-Facto: Supporting access to online services in general practices – the patients' perspective

Gary Abel, John Campbell, Jeff Lambert, Christopher Clark, Mayam de Cano, Carol Bryce, Emma Cockcroft, Helen Atherton

Problem

The rapid adoption of online services in general practice has accelerated during the COVID-19 pandemic. Use of e-consultations, ordering repeat prescriptions online and accessing medical records are widely available. While access to services online may be welcomed by some, there is concern that many may be unable to engage effectively. Little is known about the processes, procedures, and personnel employed in general practice to support NHS patients in their uptake and use of online services, (digital facilitation) and about patients' perceptions of these efforts.

Approach

As part of the Di-Facto study (Facilitating Access to Online NHS Primary Care Services) we are undertaking a survey of 12,000 patients (aged ≥ 16) from 60 practices. Between 150 and 285 patients from each participating GP practice are being sent a survey (depending on deprivation level). Participating practices have all previously responded to the practice survey. Questionnaire development started with input from the project's patient advisory group and drew on findings from a literature review and survey of practices which formed part of the wider project. Questions address patients' familiarity and confidence in computer and internet use, their awareness and uptake of online services and their experiences of practice support provided. Questionnaires are sent by post with one reminder questionnaire and a reminder postcard. Replies are requested by post or online.

Findings

The survey is ongoing, initial results being available for the conference. To date,147 practices have been invited, 47 expressing interest, over 4000 patients invited. In addition to descriptive findings, mixed effects logistic regression will be used to examine how perception of digital facilitation varies by patient factors e.g. age, gender, ethnicity, presence of long-term conditions and confidence in using computers and the internet. Patient responses will be linked to the responses of practices in the previous survey to examine whether patients are aware of digital facilitation efforts that practices report undertaking.

Consequences

Considering the fast and ongoing roll out of online services it is important to gain a fuller understanding of how best to support patients in their use of online services and examining the patient perspective is a key factor in doing so.

Fiona Wood - Cardiff University

What matters to families about the healthcare of preterm or low birth weight babies: A qualitative evidence synthesis

David Odd, Mala Mann, Hannah Beetham, Emma Dorgeat, Tommy Isaac, Annie Ashman, Lisa Hurt

Problem

An updated WHO guideline on the healthcare of preterm or low birthweight (LBW) infants is being developed. An understanding of families' perspectives and values is required to inform the development of the guideline. We sought to understand the views of families (including mothers, fathers, parents, carers, or other family members) about the care provided by health services for preterm or LBW babies from birth until the baby reaches 24 months of age.

Approach

We searched eight databases for papers published between January 1st 2000 and June 14th 2021 using key words terms for qualitative research, preterm or LBW, and healthcare. Included populations were family members or carers of preterm or LBW babies in all study settings (low and high resource) and in all healthcare settings (home, community, primary, secondary, and tertiary care). Sampling of included studies was limited to 50 primary studies, as per guidance for qualitative evidence synthesis, based on ensuring inclusion of low and high resource countries, quality criteria and data richness. Screening, data extraction and quality assessment was conducted independently by two reviewers, with a third reviewer evaluating discrepancies. Study quality was assessed using the CASP checklist for qualitative studies. Thematic synthesis techniques were used for analysis and synthesis. The GRADE-CERQual approach was used to assess confidence in review findings.

Findings

203 studies were eligible for inclusion. Using our pre-specified criteria, we selected 50 studies for inclusion in the analysis. Eight analytical themes were identified. Confidence in most results was moderate to high. What mattered to carers was: 1) a positive outcome for the child; 2) active involvement in care; 3) support to cope at home after discharge; 4) emotional support for the family; 5) the healthcare environment; 6) information needs were met; 7) logistical support was available; and 8) positive relationships with staff.

Consequences

Although parents and family members reported a variety of experiences in their baby's care, we found high consistency in what matters to families. The views of parents experiencing care in neonatal units have been extensively studied but more research is needed on what matters to parents who receive care in the community.