

# **Reconnecting Academic Primary Care in the South West Region**



**South West Society for Academic Primary Care Conference**

**March 18<sup>th</sup>, 2021**

**Unit of Academic Primary Care, Warwick Medical School**

**9.20pm-3.30pm**

**Online meeting on Teams**

# Welcome

## Welcome from Conference Chair, Associate Professor Helen Atherton

Thank you for joining us for this rather unconventional SWSAPC conference. Quite the understatement to say much has happened in the last year, and we find ourselves connecting virtually rather than in-person. Whilst we are not able to recreate the opportunities for social interaction (and eating, and dancing...), we do hope to offer a forum for updating our community on your research, research that has never been harder to organise and conduct. Thanks to everyone who submitted an abstract, we look forward to hearing and/or reading about your work today. Our keynote speakers are here to update and inspire us along the way and we are grateful to them for giving up their time to do so. Please do enjoy the day.



This conference would not have been possible without our conference committee who have worked tirelessly to put the conference together. Thank you to everyone involved:

### Conference committee

Helen McGowan, *Conference Administrator*, Prof Jeremy Dale, *Head of Unit of Academic Primary Care*.

Dr Carol Bryce, Dr Abi Eccles, Dr Jo Fleming, Dr Sarah Hillman, Dr John McCartney, Dr Ronni Nanton, Dr Jo Parsons, Dr Rachel Spencer, Susan Zhao, Adrian Banting (WMS IT)

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## Welcome from S APC Chair, Professor Carolyn Chew-Graham

Much has changed over the last year, since the SW S APC conference in Bristol, the last face-to-face conference for many. So, "Reconnecting academic primary care" is a very apt title for the conference in 2021. We have all discovered that we can maintain connections virtually and this year's SW S APC conference offer the opportunity to talk to old friends and colleagues, and also to make new connections.

The S APC has needed to adapt over the past year, we are strengthening the work of the [Special Interest Groups](#) and planning for a fantastic [Annual Scientific Meeting](#) 30th June/1st July.

We hope that, if you are participating in the SW S APC conference in March for the first time, you will feel excited and motivated to attend the ASM, and really become part of the S APC community. If you are a 'veteran' of the S APC network, I am sure that the S APC SW conference will inspire, motivate and re-connect you.

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**While we are not asking an attendance fee for today's conference we would ask you to consider taking out or renewing your membership of S APC. Alternatively, you can make a donation through on-line banking by getting in touch with Sue Stewart at the S APC Office on [office@sapc.ac.uk](mailto:office@sapc.ac.uk) Receipts will be provided. Thank you.**

## Keynote speakers

We are pleased to welcome three excellent keynote speakers to help inspire and reconnect us in 2021.



### **Mike Tildesley**

Dr Michael Tildesley is a Reader in the Zeeman Institute for Systems Biology and Infectious Disease Epidemiology Research at the University of Warwick. He completed his Ph.D. in Astrophysical Fluid Dynamics at the University of Cambridge in 2003, but has been working in the field of mathematical epidemiology since then. His research focuses upon the development of models of infectious diseases and their utility as predictive tools. He has a particular interest in the predictive power of models in the early stages of disease outbreaks, when there is significant uncertainty regarding the spread of disease.

Dr Tildesley has strong links with policy makers, working closely with the Department for the Environment, Food and Rural Affairs, the US Department of Agriculture (USDA), the World Organisation for Animal Health (OIE) and the Food and Agriculture Organisation (FAO) upon strategies for disease control.

Dr Tildesley is currently a member of the Scientific Pandemic Influenza Modelling group (SPI-M), the modelling subgroup of SAGE, and has been working throughout the COVID-19 pandemic upon the development of models to inform a range of policy questions in the UK.

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### **Prof Sue Ziebland**

Sue Ziebland is a Professor of Medical Sociology in the Nuffield Department of Primary Care Health Sciences (NDPCHS) at the University of Oxford, where she co-directs the Medical Sociology and Health Experiences research group (with Prof Catherine Pope). She has been an NIHR Senior Investigator since 2013. Over the last 20 years she has been particularly interested in how understandings of people's experiences of health and illness can be applied to improve care and service delivery; cross country comparative research, access to care and digital health.

In 2017 Sue was appointed the Programme Director for NIHR Research for Patient Benefit , which funds primary and secondary research using a wide variety of quantitative and qualitative research designs. Through its eight regional funding committees RfPB is keen to support researchers applying for their first substantial grant as PI in health and social care research. Sue has participated in and observed numerous funding panels as well as influencing national research funding strategy. In this session Sue will suggest how to make sure your application is well received and give some top tips and answer questions about applying to the programme

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## **Dr Felix Greaves**

Felix works part time as a Clinical Senior Lecturer in the Department of Primary Care and Public Health and a public health doctor. His other job is as Director - Science, Evidence and Analytics at NICE.

Felix's research interests are in population health, behaviour change, digital health and measuring quality and safety in healthcare systems.

He was previously clinical adviser to the Chief Medical Officer at the Department of Health, where he worked on developing national quality and safety policy. He also worked for the World Health Organization's Patient Safety Programme, where he managed their project on improving patient safety education in medical schools and technology for patient safety.

Felix trained at Oxford University (BA, BM BCh), Harvard University (MPH) and Imperial College (MBA, PhD). He was awarded a Knox Fellowship by Harvard University, the Sir John Brotherston Prize by the Faculty of Public Health in the UK, an Academic Clinical Fellowship by the NIHR, and a Harkness Fellowship in Health Care Policy and Practice by the Commonwealth Fund.

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**Emma Healey, PHoCuS Champion** is leading the lunchtime session for PHoCuS (Primary Healthcare Scientists) attendees. The session will be an opportunity to talk to other PHoCuS members and will include information about mentoring opportunities. More information about PHoCuS is available on the SAPC website.

<https://sapc.ac.uk/article/primary-health-care-scientists-phocus>

## Programme

9.00 - 9.20am	<b>LOGON and Chat</b>
9.20 - 9.30am	<b>WELCOME</b> Associate Professor Helen Atherton, Unit of Academic Primary Care, Warwick Medical School
9.30 - 9.35am	<b>Welcome from Chair of SAPC - Prof Carolyn Chew-Graham</b>
9.35 - 10.15am	<b>KEYNOTE SPEAKER 1 Dr Mike Tildesley</b> University of Warwick Reader in Infectious Disease Modelling and Deputy Director of the Zeeman Institute for Systems Biology and Infectious Disease Epidemiology Research and member of the Scientific Pandemic Influenza Modelling group (SPI-M), the modelling subgroup of SAGE  <i>'Modelling the COVID-19 pandemic in the UK: predictions, control and informing policy'</i>
10.05 - 10.20am	<b>COFFEE/COMFORT BREAK</b>
10.20 - 11.20am	<b>PARALLEL ORAL PRESENTATIONS in 4 Sessions</b>
11.20 - 11.30am	<b>COFFEE/COMFORT BREAK</b>
11.30 - 12.15pm	<b>KEYNOTE SPEAKER 2 Prof Sue Ziebland</b> University of Oxford, Professor of Medical Sociology and Director of Research for Patient Benefit programme, NIHR plus Q&A with <b>Dr Matt Ridd</b> , University of Bristol  <i>'Applying to NIHR RfPB as an early to mid-career researcher'</i>
12.15 - 1pm	<b>LUNCH — PHOCUS meeting in break-out room Chaired by Emma Healey</b>  <b>Poster e-stream viewing</b>
1.00 - 2.00pm	<b>PARALLEL ORAL PRESENTATIONS in 4 Sessions</b>
2.00 - 2.30pm	<b>PARALLEL POSTER PRESENTATIONS in 3 Sessions</b>
2.30 - 2.45pm	<b>COMFORT/COFFEE BREAK</b>
2.45—3.15pm	<b>KEYNOTE SPEAKER 3 Dr Felix Greaves</b> NICE and Imperial College London, Director for Science, Evidence and Analytics at NICE, Clinical Senior Lecturer and Imperial College London and Public Health Doctor  <i>'Evidence in a post-pandemic world'</i>
3.15—3.30pm	<b>PRIZES, FAREWELL AND CLOSE— Dr Helen Atherton and Professor Jeremy Dale—Head of Unit of Academic Primary Care, Warwick Medical School</b>

**Parallel Oral Presentations – Morning 10.20am-11.20am**

	<b>Patient and clinician experience</b>	<b>Access to Primary Care</b>	<b>Diagnosis</b>	<b>Wellbeing and mental health</b>
	Chair: Carol Bryce	Chair: Gary Abel	Chair: Sarah Mitchell	Chair: Beth Stuart
<b>10.20-10.35</b>	<b>The Online Booking Experience Study: Why is online booking for GP appointment better suited to some, and less suitable for others?</b> Abi Eccles University of Warwick	<b>OPTEL – Older People and ‘telephone access’ to general practice</b> Joanna Fleming, University of Warwick	<b>Missed/delayed referrals for investigation of suspected cancer: an candidate indicator of practice-level care quality</b> Luke Mounce, University of Exeter	<b>Trauma-informed approach as an innovative model of care: a UK policy review</b> Elizabeth Emsley, University of Bristol
<b>10.35-10.50</b>	<b>Should hospital discharge letters be shared with the patient: comparing the views of GPs and hospital clinicians?</b> Katherine Weetman, University of Warwick	<b>Pharmacy based video consultation: which patients use it, and how do they experience it?</b> Joanne Parsons, University of Warwick	<b>The risk of gastrointestinal cancers in patients with new unexplained abdominal pain and concurrent weight loss in primary care: a prospective cohort study using electronic records</b> Niamh Gibson, University of Exeter	<b>Does whole team training in personality disorder improve primary care staff’s skill and confidence working with this patient group?</b> Rob Schafer, University of Oxford
<b>10.50-11.05</b>	<b>The old and familiar meets the new and unknown: Patient and clinician perceptions on the safety of e-cigarettes for smoking reduction in UK general practice, a qualitative interview study</b> Charlotte Albury, University of Oxford	<b>An evaluation of service user experience, clinical outcomes and service use associated with urgent care services that utilise telephone based digital triage: A systematic review</b> Ash Sexton, University of Warwick	<b>Diagnostic performance of a faecal immunochemical test for patients with low-risk symptoms of colorectal cancer in primary care: a service evaluation in the South West of England</b> Sarah Bailey, University of Exeter	<b>Systematic Review: Are Group-based Interventions Effective at Improving Wellbeing in Carers of People with Dementia?</b> Bethany McLoughlin, University of Warwick
<b>11.05-11.20</b>	<b>The importance of attitudes towards learning techniques for patients to get up from the floor following a fall</b> Dawn Swancutt, University of Plymouth	<b>The implementation of remote consulting in UK primary care following the COVID-19 pandemic: a mixed-methods longitudinal study</b> Maired Murphy, University of Bristol	<b>An assessment of the guidance for the detection of cow’s milk allergy in infants: Secondary analysis of the Enquiring About Tolerance (EAT) Randomised Control Trial using the 2019 ‘Milk Allergy in Primary Care (iMAP) Guideline</b> Rosie Vincent, University of Bristol	<b>Trends in the recording of anxiety in UK primary care: a multi-method approach</b> Charlotte Archer, University of Bristol

Parallel Oral Presentations - Afternoon 1pm – 2pm

	<b>GP training</b>	<b>Long term conditions</b>	<b>Adapting to adversity</b>	<b>Consultation</b>
	Chair: Abi Eccles	Chair: Veronica Nanton	Chair: Sarah Hillman	Chair: Jeremy Dale
<b>13.00-13.15</b>	<b>The IMPACT study - Effects of the COVID19 pandemic on GP registrars' training and career plans: implications for vocational training in the future</b> Bilal Salman University of Warwick	<b>Which arm should be used to measure blood pressure? An individual participant data meta-analysis from the INTERPRESS-IPD Collaboration</b> Christopher Clark University of Exeter	<b>Use of face masks, social distancing, complementary and other approaches to reduce the risk of developing COVID-19: A survey of self-reported behaviours</b> Taeko Becque University of Southampton	<b>Patients and healthcare professionals' (HCPs) experiences of receiving and delivering care during the COVID-19 pandemic: a qualitative study in 8 European countries</b> Marta Wanat University of Oxford
<b>13.15-13.30</b>	<b>A feasibility study of online training in empathic and optimistic communication in primary care: adapting to the COVID pandemic</b> Jane Vennik University of Southampton	<b>The impact of words chosen to describe obesity on patient engagement with brief weight loss advice</b> Madeleine Tremblett University of Oxford	<b>Community end-of-life care during the COVID-19 pandemic: Initial findings of a UK primary care survey</b> Sarah Mitchell University of Warwick	<b>The rapid development of the '4S Sore Throat Tool' to assess sore throats at home</b> Kirsten Smith University of Southampton
<b>13.30-13.45</b>	<b>Approaching the multimorbidity consultation: Evaluation of a training package for newly qualified GPs</b> Dawn Swancutt, University of Plymouth	<b>Arm Based on LEg blood pressures (ABLE-BP): Can leg blood pressure measurements predict brachial blood pressure? An individual participant data meta-analysis from the INTERPRESS-IPD Collaboration</b> Sinead McDonagh University of Exeter	<b>The impact of natural and man-made disasters on the access, prescribing, delivery and distribution of contraception in OECD countries: a scoping review</b> Benjamin Freed, University of Warwick	<b>The Consultation Open and Close (COAC) Study: a feasibility</b> Mairead Murphy University of Bristol
<b>13.45-14.00</b>	<b>Clinicians views and experiences of implementing a complex intervention to inform antibiotic prescribing in children with respiratory tract infections in primary care</b> Clare Clement, University of Bristol	<b>Population segmentation in type 2 diabetes mellitus: a systematic review</b> Sukhmani Cheema University of Southampton	<b>Weather the storm or upgrade the canoe: adapting to change in the STREAM project</b> Liz Payne/Jackie Seely University of Southampton	<b>Exploring opportunities to improve patient safety when GPs work in or alongside emergency departments: realist evaluation</b> Alison Cooper Cardiff University

Parallel poster presentations – 2pm – 2.30pm

	<b>Safer systems</b>	<b>Patient and carer experience</b>	<b>Long term conditions and the consultation</b>
	Chair: Rachel Spencer	Chair: Joanna Fleming	Chair: Helen Atherton
<b>14.00-14.05</b>	<b>Associations between socioeconomic deprivation and pharmaceutical prescribing in primary care in England</b> Roger Yau/Saran Shantikumar <i>University of Warwick</i>	<b>Doing what I want and making my own decisions – a qualitative study to inform our understanding of independence in older people</b> Emily Taylor <i>University of Exeter</i>	<b>Maintaining face-to-face consulting during the COVID-19 pandemic: a qualitative study in UK primary care</b> Andrew Turner <i>University of Bristol</i>
<b>14.05-14.10</b>	<b>Supporting the uptake of antibiotic optimisation strategies in high-prescribing general practices: a mixed-methods implementation study</b> Aleksandra Borek <i>University of Oxford</i>	<b>The role of friends and family providing support to survivors of domestic abuse during the COVID-19 pandemic</b> Alison Gregory <i>University of Bristol</i>	<b>The impact of patient initiated cardiovascular self-monitoring on consultation outcomes and clinician attitudes</b> Wilfred Jenkins <i>University of Oxford</i>
<b>14.10-14.15</b>	<b>Exploring primary care clinicians' views about how best to implement a potential future trial around point-of-care tests for common infections in South Africa</b> Alice Epps <i>University of Oxford</i>	<b>Exploring how parents make sense of and act upon online advice and support about childhood eczema: a qualitative interview study</b> Bethan Treadgold <i>University of Southampton</i>	<b>Changes in potential cancer indicator reporting in primary-care during the COVID-19 pandemic</b> Chris Salisbury <i>University of Bristol</i>
<b>14.15-14.20</b>	<b>Priority-setting and dual agency roles for patient and society: Qualitative analysis of GP consultations</b> Yuri Hamashima <i>University of Bristol</i>	<b>Extending the IRIS domestic violence model to other patient groups</b> Eszter Szilassy <i>University of Bristol</i>	<b>The role of Primary Care Pharmacists in the care of patients with diabetes – a narrative review of studies in the United Kingdom</b> Judit Konya <i>University of Exeter</i>
<b>14.20-14.25</b>	<b>Point-of-care Tests and Technology in Ambulatory Care Paediatrics: Clinician and Stakeholder views</b> Meriel Raymond Morais <i>University of Oxford</i>	<b>Healthy Community Fair: exploring the social prescribing needs of rural communities through a public engagement event</b> Amadea Turk <i>University of Oxford</i>	<b>Quality of life of older adults with chronic kidney disease: findings from NewKi cohort</b> Isabella Busa <i>University of Oxford</i>

## **E-posters - available to browse online at all times in the e-Poster Viewing Room channel**

**Telephone based digital triage in urgent care provision: A routine data analysis of patients' service use and health outcomes before and during the Covid-19 pandemic**

Ash Sexton  
*University of Warwick*

**Primary Care Evaluation of COVID-19 Infection Surveillance in Bristol Network (PRECISION Study)**

Abdullah Mukit  
*University of Bristol*

**A qualitative study exploring parental online forum discussions about the management of children's sleep problems, online, in the community and in primary care**

Samantha Hornsey  
*University of Southampton*

**Diagnosis of peripheral arterial disease in primary care: a survey of general practitioners in England & Ireland**

Judit Konya  
*University of Exeter*

**The Potential Contribution of Paramedics in Primary and Urgent Care**

Georgette Eaton  
*University of Oxford*

**Comparing primary and secondary care sites in the effectiveness of a multimodal intervention for the frail and pre-frail older population: a secondary analysis of an international cluster-randomised trial**

Katherine Powell  
*Cardiff University*

**Integrating primary care and social services for older adults with multimorbidity: A qualitative study**

Glenn Simpson  
*University of Southampton*

**An efficiently designed RCT in primary care clustered at the practice level using routinely collected CCG data as the primary outcome: barriers and facilitators from the CHILDREN'S COUGH (CHICO) study.**

Penny Seume  
*University of Bristol*

**Patient-reported outcome measures (PROMs) for monitoring primary care patients with depression (PROMDEP): A qualitative study on practitioner perceptions of taking part in a randomised controlled trial**

Lien Bui  
*University of Southampton*

**Antibiotic prescribing during COVID19 pandemic: analysis of Welsh primary care dispensing data from January 2019 to October 2020**

Diana Wasag  
*Cardiff University*

**Understanding GP perspectives on managing safeguarding in primary care via remote consulting as necessitated by the covid-19 pandemic.**

Sharon Dixon  
*University of Oxford*

**Fast Track Cardiff initiative: a systematic review of interventions aiming to reduce self-stigma in people living with HIV**

Molly Timlin  
*Cardiff University*

## Abstracts

### Parallel Oral Presentations session 1 (am):

#### Patient and clinician experience

Dr **Abi Eccles**, Abel, G., Campbell, J., Dale, J., Poltawski, L., Roberts, G. and Atherton, H

#### **The Online Booking Experience Study: Why is online booking for GP appointment better suited to some, and less suitable for others?**

##### **The problem**

Intended to alleviate pressure and improve access to GP appointments, online booking is offered as an alternative to booking via telephone. However, most patients continue to book via the phone. Patients' experiences of booking GP appointments differs according to background, circumstances and functionality of the booking systems. But currently, evidence examining these mediators is lacking, and little is known about patients' perspectives about online booking.

##### **The approach**

The Online Booking Experience (OBoE) study uses mixed methods to examine experiences of booking GP appointments. The study comprises of two stages 1) analysis of national survey data to examine patterns in booking behaviours according to patients' backgrounds, 2) 43 semi-structured qualitative telephone interviews with individuals who had recently booked GP appointments. During the interviews we explored experiences of, and views about, booking appointments. Framework analysis was adopted to allow comparison of cases in key areas identified in the first stage of the study.

##### **Findings**

Analysis of interview data demonstrated a range of barriers and facilitators to online booking. Key themes emerged which were associated with the participants' age, long term conditions, and their practice. These key areas provided explanation behind behavioural patterns identified in stage 1 of the study.

##### **Implications**

Key themes identified illustrate why online booking is less accessible to certain groups. As the UK government continues to invest in digital services, it is vital we understand the barriers faced by specific groups. Without understanding these barriers, we cannot overcome them, and thus improve uptake and ensure more equal access to online services for all.

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Dr **Katharine Weetman**, Professor Jeremy Dale, Dr. Emma Scott, Dr. Stephanie Schnurr

#### **Should hospital discharge letters be shared with the patient: comparing the views of GPs and hospital clinicians?**

##### **The problem**

Discharge letters are crucial during patient care transitions from hospital to home. These letters are often sent from the hospital discharge physician to the patient's general Practitioner (GP). However, in practice it can vary as to whether or not the patient receives the letter. The quality of the discharge letters' content also remains variable.

### **The approach**

Mixed methods study based in the West Midlands, UK. 53 GPs participated. They screened and selected a range of recent discharge letters which they assessed to be successful and unsuccessful exemplars. GPs' views about sharing discharge letters with patients were gathered through interviews and focus groups. The hospital professionals who wrote the letters were invited to take part in a survey on their evaluation of the discharge letter, their current practices, and their views on how processes may be improved. Data were analysed using descriptive statistics, corpus linguistics, and narrative overview; GP and hospital professional viewpoints were also compared for corresponding discharge letters.

### **Findings**

46 hospital professionals responded to the survey. Hospital professionals had mixed views on sharing discharge letters with patients. The results suggested that GPs and HPs may not be in agreement in regard to what constitutes a successful discharge letter. Hospital professionals identified several barriers to producing more "successful" letters.

### **Implications**

We suggest ways in which the content of discharge letters may be improved to enhance communication with GPs and information sharing with patients. The study highlighted barriers to producing high quality discharge summaries which may be addressed through training and organisational initiatives.

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**Dr Charlotte Albury, Dr Rebecca Barnes, Dr Anne Ferrey, Prof Paul Aveyard, Dr Rachna Begh**

## **The old and familiar meets the new and unknown: Patient and clinician perceptions on the safety of e-cigarettes for smoking reduction in UK general practice, a qualitative interview study**

### **The problem**

Many chronically ill smokers are unable or unwilling to quit. Harm reduction offers an alternative to quitting, providing nicotine through less harmful sources. In the MaSC trial smokers with a smoking-related chronic disease who had no intention of quitting or seeking support were encouraged to switch to e-cigarettes by a primary care clinician.

### **The approach**

In this qualitative study we interviewed 21 patients from the MaSC trial, and 11 primary care clinicians, to understand how both clinicians and patients reported feeling about e-cigarette offers and to identify existing barriers to promoting e-cigarettes to reduce the harms of smoking. We used a theoretical sampling approach. Data were analysed using thematic analysis.

### **Findings**

Patient and clinician perceptions of the harms, safety, and risks of e-cigarettes were barriers to delivery and uptake. We developed four themes on (1) concepts of safety/risk, (2) conceptualising e-cigarettes as replacement therapy, (3) equating quitting with success versus smoking reduction as failure, and (4) inexorable views on e-cigarettes. E-cigarettes were perceived as a new approach and deviated from current treatment approaches with which both patients and clinicians were more familiar.

## **Implications**

Although clinicians received instructions to promote e-cigarettes for smoking reduction, many were more comfortable with the familiar approach of recommending and conceptualising e-cigarettes as a short-term step to quitting. Understanding the value of harm reduction, as promoted by UK guidelines, is essential for clinicians to effectively deliver support and treatment options to people who are unwilling to quit.

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**Dr Dawn Swancutt, Dr. SV Hope, Dr. B Kent, Ms. M Robinson, Prof. V Goodwin**

## **The importance of attitudes towards learning techniques for patients to get up from the floor following a fall**

### **The problem**

Falls are a common reason to call an ambulance; only half of non-injured fallers can get themselves up off the floor. Many remain there for over an hour, increasing their risk of other complications.

It is feasible to teach people techniques to get themselves off the floor, yet there are no data on attitudes towards teaching and learning these techniques.

### **The approach**

We conducted a focus group and qualitative interviews with 28 participants on their experience and attitudes towards teaching and learning techniques to get up following a fall. These included community-dwelling older people with experience of a fall, their partners, physiotherapists, occupational therapists, paramedics and community first responders.

Data were transcribed and systematically analysed using the Framework approach.

### **Findings**

We identified four main themes; preventative strategies, reactions, confidence and independence. Although falls were common, people avoided calling an ambulance for help getting up. Recognising the chance of a fall, people employed preventative strategies, changing daily activities and calling on social networks for help.

Self-confidence and attitude was critical to learning skills to get up; some described fear or embarrassment, yet others were stoic about their inability to get up. They described not needing an ambulance, just help to get up. Therapists and paramedics don't routinely teach these skills.

The relationship between their physical and social environment, and psychological attitude, affected each person's capability to manage their fall.

### **Implications**

To successfully intervene with people who have fallen, considering psychological attitude towards teaching and learning skills is key.

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## Parallel Oral Presentations Session 2 (am):

### Access to Primary Care

Dr Joanna Fleming, Associate Professor Helen Atherton (PI), Professor Jeremy Dale, Dr Carol Bryce, Dr Jo Parsons, Dr Jennie Newbould, Mrs Gillian Grason-Smith

#### OPTEL – Older People and ‘telephone access’ to general practice

##### The problem

A new system for accessing appointments, ‘telephone first,’ has been introduced in general practice; promoted as a better way of managing demand for appointments. There are indications that older people may face additional challenges in expressing their needs over the telephone or require a carer to make their appointments. This may act as a barrier to accessing timely care and potentially have a negative impact on their health.

##### The approach

A qualitative study, using semi-structured interviews with patients and carers, and focus groups with general practice staff. We will recruit eight practices and conduct interviews with six patients (or carers) from each, and a total of six focus groups. We will analyse data using thematic analysis by applying modified grounded theory.

##### Findings

To date, we have carried out 41 interviews and six focus groups; recruiting a diverse range of patients and maximum variability across practices. We will describe current findings, emerging themes, and challenges of reaching diverse samples.

##### Implications

We will begin to outline ways of responding to the needs of older people and their carers in using a ‘telephone first’ approach.

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Dr Joanne Parsons, Dr Helen Atherton, Sameur Rahman

#### Pharmacy based video consultation: which patients use it, and how do they experience it?

##### The problem

Advances in technology, and current needs for alternatives to face-to-face consultations during COVID-19 have led to increased availability of private remote GP consultation services. Little evidence exists about which patients use private remote services, how diagnostic equipment compliments these, what impact these have on NHS, and why patients choose them over NHS appointments. This study aims to explore these areas.

##### The approach

Retrospective cross-sectional observational analysis was used, analysing anonymous data from 8,527 consultations. Key characteristics of patients using the service (age and gender), patterns of use and patients’ satisfaction with the service were analysed. Descriptive statistics, and parametric and non-parametric tests were used, depending on the variables available.

##### Findings

In total 55.9% patients were female. Mean age was 36.5 years.

Most common appointment time was 1.15pm, and mean consultation length was 12.07 minutes. 56% appointments were for the same day, and further 17% for next day. Respiratory conditions,

Genitourinary system, Medication requests and Diseases of ear or mastoid system were most common conditions.

Common reasons for using the service were timings of appointments more convenient than usual GP and appointments being available before usual GP appointments. Mean satisfaction rating was 9.22/10.

### **Implications**

This study increases knowledge about private remote GP consultations using diagnostic equipment. Appointments were largely made for the same or next day, allowing quick access to GP consultations. Satisfaction with the service was high, and patients found it to be convenient and easy to use. This finding is important given the drastic rise in remote consultations.

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**Ash Sexton**, Carol Bryce, Jeremy Dale, Helen Atherton

## **An evaluation of service user experience, clinical outcomes and service use associated with urgent care services that utilise telephone based digital triage: A systematic review**

### **The problem**

Telephone based digital triage is widely used by services that provide urgent care. This involves a call handler or clinician using a digital triage tool to generate algorithm based care advice, based on a patient's symptoms. Despite wide adoption, there is limited evaluation of its impact on service user experience, service use and clinical outcomes; no previous systematic reviews have focussed on these outcomes in services that utilise digital triage.

### **The approach**

Studies were identified through searches conducted in Medline, Embase, CINAHL, Web of Science, and Scopus. All original study types were included. Quality assessment of studies was conducted using the Mixed Methods Appraisal Tool (MMAT); narrative synthesis was used to analyse findings.

### **Findings**

Thirty three studies were included. Digital triage service use declined in patients with increasing age; however urgency of advice increased with age. Two studies reported that women were more likely to receive lower urgency advice as compared to men.

Most studies reported a reduction or no change in wider healthcare service use. Two studies highlighted potential safety concerns relating to under-triage. Service users reported good satisfaction; two key themes related to callers' need for assertiveness and safety concerns.

### **Implications**

This review highlights important areas for further research which will contribute to the improvement of digital triage tools and service delivery. These areas include: understanding gender differences in urgency of advice; the need for more research into clinical outcomes and mixed methods approaches to better understand patients' adherence with triage advice and care needs.

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**Dr Mairead Murphy**, Lauren Scott, Chris Salisbury, Andrew Turner, Anne Scott, Rachel Denholm, Geeta Iyer, Rhys Davies, John MacLeod, Jeremy Horwood.

### **The implementation of remote consulting in UK primary care following the COVID-19 pandemic: a mixed-methods longitudinal study**

#### **The problem**

To reduce contagion of COVID-19, in March 2020 UK general practices rapidly implemented predominantly remote consulting via telephone, video or online consultations. We worked with Bristol, North Somerset and South Gloucestershire (BNSSG) CCG to explore this implementation over the initial months of the COVID-19 pandemic.

#### **The approach**

Mixed-methods study in 21 general practices in Bristol, North Somerset and South Gloucestershire. Quantitative: Longitudinal observational analysis comparing volume and type of consultations in April-July 2020 with April-July 2019. Negative binomial models were used to identify if changes differed amongst different groups of patients.

Qualitative: 87 practice staff longitudinal interviews in four rounds investigated practices experience of the move to remote consulting, challenges faced and solutions. Analysis utilised Normalisation Process Theory.

#### **Findings**

There was universal consensus that remote consulting was necessary. This drove a rapid change to 90% remote GP consulting (46% for nurses) by April 2020. Consultation rates reduced in April-July 2020 compared to 2019; GPs/nurses maintained a focus on older patients, shielding patients and patients with poor mental health. Telephone consulting was sufficient for many patient problems, video consulting was used more rarely, and was less essential as lockdown eased. SMS-messaging increased more than three-fold. GPs were concerned about increased clinical risk and some had difficulties setting thresholds for seeing patients face-to-face as lockdown eased.

#### **Implications**

The shift to remote consulting was successful and a focus maintained on vulnerable patients. It was driven by the imperative to reduce contagion and may have risks; post-pandemic, the model will need adjustment.

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## **Parallel Oral Presentations Session 3 (am):**

### **Diagnosis**

**Dr Luke Mounce**, Dr Bianca Wiering, Dr Monica Koo, Prof. Hardeep Singh, Prof. Georgios Lyratzopoulos, Prof. Gary Abel

### **Missed/delayed referrals for investigation of suspected cancer: an candidate indicator of practice-level care quality**

#### **The problem**

Assessing the quality of cancer diagnostic activity in general practice is difficult with outcome indicators dependant on small numbers of patients. We investigated the utility of an indicator tracking referrals following 'red flag' cancer symptoms.

## The approach

Clinical Practice Research Datalink electronic primary care records for patients reporting (2014-2015) one of six cancer symptoms for which expedited referral is suggested under NICE NG12 guidance (dysphagia, breast lump, rectal bleeding, post-menopausal bleeding, haematuria, iron-deficiency anaemia) were linked to Hospital Episode Statistics referrals data. Practices' proportion of patients receiving an expedited referral within 14-days of presentation was assessed for adequate variation ( $\geq 50\%$  difference between 10th and 90th centiles) and reliability (median  $\geq 0.70$ ). The effect of case-mix adjustment on performance was explored.

## Findings

Altogether, 19,787/48,847 (40.5%; 95%CI 40.1%-40.9%) patients from 279 practices received an expedited referral; median practice performance was 40.1% (IQR 33.5%-46.5%). The odds ratio for the difference in performance between the 10th and 90th centiles was 2.55, indicating considerable variation in performance. Sufficient reliability was also demonstrated, with a median of 0.82 (IQR 0.70 to 0.88), and was sustained when using a single year of data. Single symptom indicators for dysphagia, breast lump, post-menopausal bleeding, and haematuria individually showed sufficient variability and reliability. Adjustment for age, gender, and symptom led to modest reordering of practices and is recommended (Kendall's tau=0.74).

## Implications

Practice-level proportion of patients receiving an expedited referral following six red flag cancer symptoms has the potential to be an effective care quality indicator, with one year of data sufficient for adequate reliability.

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**Miss Niamh Gibson**, Sarah Price, Elizabeth Shephard , Willie Hamilton

## **The risk of gastrointestinal cancers in patients with new unexplained abdominal pain and concurrent weight loss in primary care: a prospective cohort study using electronic records.**

### The problem

COVID-19 increases the challenge of meeting the UK target of 75% of early-stage cancer diagnoses by 2028. Clinicians need data on cancer risk in patients with symptoms not meeting the 3% referral threshold.

We quantify common undiagnosed gastrointestinal (colorectal, pancreatic, oesophagogastric) cancer risk posed by abdominal pain with weight loss.

### The approach

This prospective cohort study examined 125,793 Clinical Practice Research Datalink (CPRD) patients aged  $\geq 40$  years with new-onset abdominal pain. Cancer Registry and CPRD records were searched for gastrointestinal cancer codes in the year after the abdominal pain date.

Weight loss codes  $\pm 3$ -months of the abdominal pain date identified patients with concurrent weight loss.

We used logistic regression, stratified by age band (40-59, 60-69, 70+) and sex, to predict the probability of gastrointestinal cancers in patients with abdominal pain with/without weight loss.

### Findings

Gastrointestinal cancer risk rose with age and was higher in men (40-59: men 0.64%, 0.54%–0.73%; women 0.28%, 0.23%–0.34%; 60-69: 1.78%, 1.56%–1.99%; 1.03%, 0.86%–1.20%; 70+: 2.85%, 2.57%–3.14%; 1.56%, 1.39%–1.73%).

Concurrent weight loss increased gastrointestinal cancer risk above 3% for both sexes  $\geq 40$ . In  $\geq 70$ s, colorectal cancer was most likely (men 4.05%, 1.42%–6.69%; women 1.58%, 0.21%–2.95%), then

pancreatic (men 2.70%, 0.75%–4.65%; women 1.27%, 0.03%–2.50%) or oesophagogastric in men (2.70%, 0.32%–5.08%).

### Implications

These results guide cancer investigative strategies in patients with abdominal pain and weight loss. Colonoscopy/faecal immunochemical tests for colorectal cancer are recommended for men  $\geq 70$ , followed by gastroscopy and CT scan/ERCP for possible oesophageal or pancreatic cancer in those testing negative.

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**Dr Sarah Bailey**, Gary Abel, Fiona Walter, Willie Hamilton

## **Diagnostic performance of a faecal immunochemical test for patients with low-risk symptoms of colorectal cancer in primary care: a service evaluation in the South West of England**

### The problem

The faecal immunochemical test (FIT), which measures the amount of haemoglobin in a faeces sample, has recently been introduced as a triage test for patients with low-risk symptoms of possible colorectal cancer in primary care (NICE DG30). This study aimed to evaluate FIT in this population, and to estimate its diagnostic performance.

### The approach

FIT was introduced to all primary care providers in the South West of England, approximate population 4 million. 3890 patients aged  $\geq 50$  years presenting in primary care with low-risk symptoms of colorectal cancer (following NICE NG12 and DG30) were tested with the HM-JACKarc assay from 01/06/2018 to 31/12/2018. A threshold of 10 $\mu$ g Hb/g faeces was applied. Patients meeting the following criteria were eligible for testing:

- Aged 50 years and over with unexplained abdominal pain or weight loss
- Aged 50 to 60 years with change in bowel habit or iron deficiency anaemia
- Aged 60 years and over with anaemia, even in the absence of iron deficiency

### Findings

618 (15.9%) patients tested positive (median 36 $\mu$ g Hb/g faeces (IQR 17 to 149)); 458 (74.1%) of these had an urgent referral to specialist lower gastrointestinal (GI) services within three months. 43 were diagnosed with colorectal cancer within 12 months. 3272 patients tested negative; 324 (9.9%) were referred on an urgent lower GI pathway in secondary care within three months. 8 were diagnosed with colorectal cancer within 12 months. The positive predictive value of FIT for colorectal cancer in the low-risk symptomatic population was 7.0% (95% CI 5.1% to 9.3%) and the negative predictive value was 99.8% (CI 99.5% to 99.9%). Sensitivity was 84.3% (CI 71.4% to 93.0%), 4 and specificity 85.0% (CI 83.8% to 86.1%). The area under the ROC curve was 0.92 (CI 0.86 to 0.96). A threshold of 37 $\mu$ g Hb/g faeces would identify patients with an individual 3% risk of cancer.

### Implications

FIT performs exceptionally well to triage patients with low-risk symptoms of colorectal cancer in primary care. The threshold value of 10 $\mu$ g Hb/g faeces represents a risk of cancer below 3% used in current NICE guidance; however, this lower value may be appropriate to meet the national aspiration of improving cancer diagnostics.

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**Dr Rosie Vincent**, Ridd M J, MacNeill S, Perkin M R, Logan K, Craven J, Marrs T, Lack G, Flohr C, Radulovic S

**An assessment of the guidance for the detection of cow's milk allergy in infants: Secondary analysis of the Enquiring About Tolerance (EAT) Randomised Control Trial using the 2019 'Milk Allergy in Primary Care (iMAP) Guideline.**

**The problem**

The Milk Allergy in Primary Care (MAP) Guideline, updated in 2019, was developed to help identify infants with cow's milk allergy. However, concern has been expressed that such guidelines might lead to over-diagnosis, and potential for discouragement of breastfeeding and unnecessary prescription of specialized infant formula milks.

**The approach**

Secondary analysis of data from the Enquiring About Tolerance (EAT) population based randomised controlled trial, including 1303 exclusively breastfed 3 month-old infants. The objective was to describe how common symptoms associated with cow's milk allergy (CMA), described in the 2019 MAP Guideline, are in infants during the first year of life. Parents completed monthly questionnaires enquiring about the health of their infant.

**Findings**

The mean percentage of infants with 2 or more of the mild-moderate non-IgE mediated CMA symptoms was 25.3% over the 3-12-month period. Symptoms were more common in the earlier rather than later months (37.6% at 3 months of age and 14.4% at 11 months (14.4%). The most common symptom was vomiting/ possetting affecting 45.8%, followed by pruritis (14.9%) and diarrhoea (11.7%). Infants with eczema and non-first-born infants were associated with higher symptom frequencies.

**Implications**

The guidance is identifying over a third of exclusively breastfed infants at 3 months of age as having 2 or more symptoms of mild-moderate non-IgE mediated CMA. In contrast, non-IgE mediated CMA is believed to affect around 1% of infants. Guidelines could be leading to overdiagnosis of CMA, and unnecessary CMP exclusion from both maternal and infant diets.

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## **Parallel Oral Presentations Session 4 (am): Wellbeing and mental health**

**Dr Elizabeth Emsley**, Dr Joshua Smith, Dr David Martin, Dr Natalia Lewis

**Trauma-informed approach as an innovative model of care: a UK policy review**

**The problem**

Trauma-informed care (TIC) is a novel service framework, recognising the impact of psychological trauma on patients and staff. Healthcare services can fail to meet the needs of patients and staff affected by traumatic experiences, and can contribute to re-traumatisation. TIC involves organisational change, creating environments and relationships with clinicians that promote recovery and prevent re-traumatisation. Our systematic review of TIC in primary and community mental healthcare identified limited evidence for its effectiveness in the UK, despite endorsement in various policies.

This study aims to explore the reasons for this disconnect by analysing how and why TIC is represented in UK health policies.

### **The approach**

A document analysis of UK health policies on TIC using the READ approach and framework method.

### **Findings**

Two reviewers identified 24 UK policy documents using manual and electronic searches, as well as snowballing. 12 documents relevant to the research question were analysed. We developed seven themes on the presentation of TIC and its rationale. Nine policies explored what TIC is in practice. Application of TIC in the context of integrated care was reported in three documents, recommending the role of TIC in coordination between primary and community mental healthcare. Limited evidence underpinned this recommendation. There was piecemeal adoption of TIC overall, with an evidence-policy gap.

### **Implications**

UK health policies recommend TIC as an approach to integrated primary and community mental healthcare. However, further evidence on the effectiveness and practical application of TIC in the UK is needed to inform policymakers.

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**Dr Rob Schafer, Fiona Blyth, Steve Pearce**

## **Does whole team training in personality disorder improve primary care staff's skill and confidence working with this patient group?**

### **The problem**

Personality disorder is common amongst frequent attenders in primary care. Successful management of patients with personality disorder requires a skilled, empathic and consistent team response. However, many healthcare professionals hold negative or pessimistic attitudes towards these patients.

### **The approach**

We designed a personality disorder training programme for general practice teams. This was delivered by experts by occupation (one GP and one psychotherapist) and experts by lived experience.

The training programme consisted of the following components: 4 hours of whole team training, a practice action plan, follow on training module, complex case discussions and an end of year symposium for practice leads.

### **Findings**

14 GP practices received whole team practice based training between October 2019 and September 2020. In total 352 staff attended training. 10 practices completed an action plan and all or the majority of the remaining components.

5 point Likert rating scales administered immediately prior to and after the whole team training showed participants reported improvements in understanding and recognising personality disorder, confidence managing patients presenting in crisis and understanding challenges experienced by colleagues.

Participants found the training enjoyable, useful and would recommend it to other general practice teams (99% 'strongly agree' or 'agree'). Qualitative feedback demonstrated a strong positive shift in attitude towards patients with personality disorder. The concept toolkit covered in the whole team training and the use of experts by lived experience were particularly valued.

### **Implications**

A whole team training programme improves primary care staff's skill and confidence working with patients with personality disorder, transforms attitudes and facilitates specific practice level change. We predict that this will improve clinical outcomes for this complex group and propose this as a comprehensive training model to improve the care of patients with personality disorder.

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**Miss Bethany McLoughlin**

## **Systematic Review: Are Group-based Interventions Effective at Improving Wellbeing in Carers of People with Dementia?**

### **The problem**

It is well documented that caring for someone with dementia is associated with many negative mental health outcomes, such as depression, anxiety, and a reduction in quality of life (Cooper et al., 2007; Farina et al., 2017; Sörensen et al., 2006). Group-based interventions are one strategy for improving wellbeing for carers, but previous systematic reviews have reported inconsistent findings about the efficacy of group-based interventions for carers of people with dementia. This systematic review uses a narrative synthesis approach to investigate the qualitative and quantitative evidence about the effectiveness of group-based interventions as well as to identify targets for future research.

### **The approach**

The narrative synthesis framework consists of a synthesis of findings grouped into sub-categories based on the type of intervention (cognitive behavioural therapy, psycho-educational, or support group) and an exploration of factors that could explain the disparity in the findings between studies.

### **Findings**

A comprehensive search of four databases revealed 117 potentially relevant studies, 19 of which met the full inclusion criteria. 5 studies investigated group cognitive behavioural therapy, 8 studies investigated psycho-educational interventions and 6 studies investigated support groups. The effectiveness of the interventions varied widely, even within sub-categories. No type of intervention was shown to consistently improve wellbeing, though qualitative data and data about participant satisfaction was generally very positive.

### **Implications**

Based on the quality and quantity of the evidence currently available there is not enough evidence to reach a firm conclusion about the impact of group-based interventions on wellbeing. The review identified a clear need for future high-quality studies with large sample sizes investigating longer term interventions that are designed to target a specific audience. Future research may also benefit from the use of mixed-methods data collection to explore the disparity between qualitative and quantitative findings in the literature.

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Dr Charlotte Archer, Prof Katrina Turner, Prof David Kessler, Prof Nicola Wiles

## **Trends in the recording of anxiety in UK primary care: a multi-method approach**

### **The problem**

Anxiety disorders are common. Between 1998 and 2008, in the UK, GP recording of anxiety symptoms increased, but recording of anxiety disorders decreased. We do not know whether such trends have continued. This study examined recent trends in recording of anxiety in UK primary care, and explored what factors may influence GPs' coding of anxiety.

### **The approach**

We used data from adults aged 18 years and over, registered with UK general practices that contributed to the Clinical Practice Research Datalink (CPRD) between 2003-2018. Incidence rates and 95% confidence intervals were calculated for recording of anxiety symptoms and diagnoses. In addition, in-depth interviews were conducted with 15 GPs to explore their views and management of anxiety. Interviews were audio-recorded, transcribed verbatim and analysed thematically.

### **Findings**

The dataset included 176 practices, with 2,569,153 patients contributing 17.6 million years of follow-up. The incidence of anxiety symptoms rose from 6.21/1000 person-years at risk (PYAR) in 2003 to 14.66/1000PYAR in 2018. Between 2003-2008, the incidence of anxiety diagnoses fell from 13.15 to 10.13/1000PYAR; markedly increasing between 2014 and 2018 to 15.31/1000PYAR. GPs' mentioned that they preferred using symptom codes to diagnostic codes to avoid assigning potentially stigmatising or unhelpful labels, and commented on a rise in anxiety in recent years, especially in young adults.

### **Implications**

The earlier decline in recording of anxiety diagnoses may have been due to a reluctance to use stigmatising labels. However, anxiety diagnoses and symptoms have increased recently, which may reflect increased presentation to primary care, especially in younger adults.

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## **Parallel Oral Presentations Session 1 (pm):**

### **GP training**

Dr Bilal Salman, Dr Sarah Hillman, Dr Helen Atherton, Prof. Jeremy Dale

### **The IMPACT study - Effects of the COVID19 pandemic on GP registrars' training and career plans: implications for vocational training in the future.**

#### **The problem**

The COVID19 pandemic caused major disruption to GP Speciality Training in the United Kingdom, with a shift to remote consultation (telephone, email and video) becoming the norm.

This provides an opportunity to capture the extent to which GP Trainees feel prepared to consult remotely and how changes to education and supervision has affected their training.

#### **The approach**

The Unit of Academic Primary Care (UAPC) at Warwick supported by Health Education England (HEE) developed an online questionnaire focusing on Training and Work.

A link to the questionnaire was sent by email from HEE to all West Midlands GP trainees working in a GP setting during March-June 2020.

### **Findings**

63 responses were received. 14 did not meet the inclusion criteria and were excluded.

12 of the 14 Training schemes within the West Midlands were represented. Trainees represented UK and non-UK graduates, full time and less than full time and ST1-ST4.

The 32 trainees reported a change in their working week, with a trend to increased clinical time and a decreased educational time.

38 (78%) trainees reported an effect on their physical health and 46 (94%) trainees reported an effect on their emotional/mental wellbeing – with 'stress', 'anxiety' and 'uncertainty about the future' reflected in a number of comments.

>70% trainees reported remote consultation became a key component of their daily work between March-June 2020.

Trainee confidence with remote consultation rose from 63% in March to 93% in June 2020.

### **Implications**

Results illustrate the COVID19 pandemic has impacted GP Training.

This work has formed the basis of further research exploring GP trainees needs relating to remote consultation. (26)

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**Dr Jane Vennik**, Felicity L Bishop, Stephanie Hughes, Kirsten A Smith, Jennifer Bostock, Jeremy Howick, Christian Mallen, Lucy Yardley, Paul Little, Mohana Ratnapalan, Emily Lyness, Hajira Dambha-Miller, Leanne Morrison, Geraldine Leydon, Mary Steele, Clare McDermott Hazel Everitt

## **A feasibility study of online training in empathic and optimistic communication in primary care: adapting to the COVID pandemic**

### **The problem**

Empathic and optimistic healthcare interactions have the potential to improve patient quality of life and satisfaction with care. We previously rigorously developed brief online training for primary care practitioners (PCPs) in empathic and optimistic communication.

This study aimed to establish the feasibility of trial procedures, recruitment, outcome and process measures to evaluate practitioner training versus usual care.

### **The approach**

10 GP practices were to be randomised to online training or usual care. Plans were for PCPs to recruit patients in practices, film consultations, and for patients to complete outcome measures. Covid required rapid adaptation of the trial protocol. With very limited access to GP practices, new ethics approval was sought, and social media used to recruit patients who had a recent primary care consultation. Outcome measures were completed online. Both PCPs and patients took part in telephone qualitative interviews.

## Findings

11 PCPs gave qualitative feedback on the online training and the training was optimised for increased use of remote consulting. 302 patients completed outcome measures (219 after 2 weeks) indicating recruitment and data collection methods were achievable. 30 patient interviews were completed. Outcome data is being analysed and preliminary findings will be presented at the conference.

## Implications

Rapid adaptation, flexibility and good teamwork enabled research to continue, providing valuable feasibility data despite Covid restrictions. Practitioner feedback on the intervention was positive and the training is now optimised. Next steps are to evaluate the training intervention in a full trial.

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**Dr Dawn Swancutt**, Dr. Edmund Jack, Prof. Hilary Neve, Dr. John Tredinnick-Rowe, Dr. Nick Axford, Prof. Richard Byng

## **Approaching the multimorbidity consultation: Evaluation of a training package for newly qualified GPs**

### The problem

The traditional patient consultation model taught to new GPs focuses on addressing a single issue. This approach has implications regarding how GPs can address the care needs of patients with complex conditions. We developed the SHERPA model as a person-centred biopsychosocial framework for consulting patients with multimorbidity to address this.

### The approach

In the South West we have begun teaching the SHERPA approach to trainee GPs in their second year of vocational training. We evaluated these taught interactive workshops to assess engagement and response to the new training.

Qualitative data were collected from 16 participants, through four hours of teaching observation, 24 feedback templates, six practical applications of SHERPA and eight one-to-one interviews. Data were transcribed, and, using the Framework approach, systematically analysed, focussing on trainees' learning and application of the model.

### Findings

All participants engaged well with the teaching sessions, brought observations from their own experience, and reflected on particularly complex consultations. Half of the participants applied SHERPA successfully with their patients, particularly choosing to use it with repeat attenders.

Barriers to use were: selecting appropriate patients; perceived time pressure; lack of familiarity using the model; viewing SHERPA as 'additional', rather than integral, to shared decision-making in complex situations.

### Implications

The SHERPA model was viewed as helpful by these trainee GPs for patients with whom they had established a relationship. Earlier introduction and regular support from trainers, where trainees reflect on experience of SHERPA, could increase confidence in using this method.

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**Miss Clare Clement**, Jenny Ingram, Christie Cabral, Pete Blair, Patricia Lucas, Alastair Hay, Penny Seume, Jeremy Horwood

## **Clinicians views and experiences of implementing a complex intervention to inform antibiotic prescribing in children with respiratory tract infections in primary care**

### **The problem**

Respiratory tract infections (RTIs) in children are common, lead to unnecessary antibiotic use and antimicrobial resistance. The CHildren with COugh (CHICO) intervention incorporates a clinician focussed algorithm (STARWAVE) to predict hospitalisation and a carer-focussed personalised advice leaflet recording treatment decisions, care and safety netting information.

### **The approach**

We conducted semi-structured interviews to explore whether the intervention was acceptable to and used by primary care clinicians from practices with high and low patient lists and antibiotic prescribing rates. Normalisation process theory underpinned data collection and thematic analysis.

### **Findings**

We interviewed 16 GPs and 3 nurses from 16 practices. Clinicians liked the intervention and used it as a supportive aid within consultations, describing it as a “safety net”. It helped elicit parent concerns and reassure themselves and parents of the appropriateness of some treatment decisions. They liked the advice leaflet as it helped explain treatment decisions and home care with parents. Most clinicians liked the algorithm template and found it straightforward to use, without adding any more time to consultations. However, having to close the patient’s record before the end of the consultation to complete the intervention process did not always align with clinicians’ usual processes and was problematic. Clinicians’ increased familiarisation with the template and algorithm outcomes led to reduced use of the template over time. Changes to practice pathways and consultation conduct during COVID-19 waves also impacted use.

### **Implications**

The CHICO intervention can be beneficial for supporting decision making around anti-biotic prescribing for children with RTIs and help discussions with parents about treatment decisions.

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## **Parallel Oral Presentations Session 2 (pm):**

### **Long term conditions**

**Dr Christopher Clark**, Fiona C Warren, Kate Boddy, Sinead TJ McDonagh , Sarah F Moore, Maria Teresa Alzamora, Rafel Ramos Blanes, Shao-Yuan Chuang, Michael Criqui, Marie Dahl, Gunnar Engström, Raimund Erbel, Mark Espeland, Luigi Ferrucci, Maëlen Guerchet, Andrew Hattersley, Carlos Lahoz, Robyn L McClelland, Mary M McDermott, Jackie Price, Henri E Stoffers, Ji-Guang Wang, Jan Westerink, James White, Lyne Cloutier, Rod S Taylor, Angela C Shore, Richard J McManus, Victor Aboyans, John L Campbell

### **Which arm should be used to measure blood pressure? An individual participant data meta-analysis from the INTERPRESS-IPD Collaboration**

#### **The problem**

International hypertension guidelines recommend adoption of the higher reading arm blood pressure (BP) for diagnosis and management of hypertension, based on expert consensus opinion. We examined data held by the INTERPRESS-IPD Collaboration to compare risks of all-cause and

cardiovascular mortality and cardiovascular events, using the higher and lower reading arm systolic BP.

### **The approach**

Individual participant data meta-analyses: We examined time-to-event data for the primary outcomes in univariable and multivariable Cox regression models, stratified by study. Models using the higher and lower reading arm BP were compared using Akaike's information criteria, Harrell's C-statistics and likelihood ratios. Models based on Framingham, Atherosclerotic Cardiovascular Disease (ASCVD) and European Systematic COronary Risk Evaluation (SCORE) risk scores were also compared.

### **Findings**

Records of BP measured in both arms were available for 53,172 participants from 23 cohort studies: mean age 60 years; 48% female. Higher arm BP better predicted all-cause mortality, cardiovascular mortality, and cardiovascular events than the lower arm BP ( $P < 0.001$  for all outcomes). Prediction differences remained after adjustment for age, sex, current smoking, ethnicity, total cholesterol and pre-existing diagnoses of hypertension and diabetes.

Higher arm BP better predicted cardiovascular events using the Framingham ( $N=23,278$ ) and ASCVD ( $N=18,557$ ) cardiovascular risk score algorithms compared to the lower reading arm BP ( $P < 0.0001$  for both), but no difference was observed on comparing SCORE between arms.

### **Implications**

These findings provide the first empirical evidence for adopting the higher arm systolic BP for diagnosis and management of hypertension. In order to achieve this BP should be measured in both arms.

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**Miss Madeleine Tremblett**, Dr Charlotte Albury, Professor Sue Ziebland, Dr Helena Webb, Professor Elizabeth Stokoe, Professor Paul Aveyard

## **The impact of words chosen to describe obesity and GPs' interactional approach to initiating brief weight loss advice on patient engagement**

### **The problem**

Physicians report concerns about offending patients by using the wrong words to describe obesity, deterring opportunistic intervention. We assessed GPs' word choice and GPs' interactional approach to initiating opportunistic weight loss advice, to examine the impact on patient reactions.

### **The approach**

138 consultation recordings of GPs opportunistic advice to promote weight loss were taken from the Brief interventions for Weight Loss (BWeL) trial. We used conversation analysis to examine the terms and general approach GPs use when referencing patients' weight, and how patients responded.

### **Findings**

Three terms of reference for weight were identified in the consultations: obese, overweight or the patient's BMI. Most of the time GPs did not use explicit terms to reference a patient's weight. The explicit terms GPs used had no impact on patients' response in the consultation but other interactional features of their delivery did. We categorised these features into delicate, meaning that sensitivity markers were used (e.g. pauses) and the initiation was hedged with preamble, and directive, meaning the first turn at talk was used to highlight weight with reference to the patient, with minimal markers of hesitation. Directive approaches to discussing weight often led to patient resistance, whereas delicate approaches did not.

## Implications

The few words GPs use to describe obesity rarely affected patient reactions to the initiation of weight loss advice. Instead, a directive interactional approach to initiating weight loss advice often led to patients responding with resistance. Interactional approach, rather than word choice, is key to smooth interactions about weight in medical consultations.

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**Dr Sinead McDonagh**, Sinead TJ McDonagh, James Sheppard, Fiona Warren, Kate Boddy, Leon Farmer, Helen Shore, Phil Williams, Philip S Lewis, Rachel Baumber, A Jayne Fordham, Una Martin, Victor Aboyans, Christopher E Clark

## **Arm Based on LEg blood pressures (ABLE-BP): Can leg blood pressure measurements predict brachial blood pressure? An individual participant data meta-analysis from the INTERPRESS-IPD Collaboration**

### The problem

Hypertension, a key modifiable risk factor for prevention of stroke, is diagnosed and managed using arm blood pressure (BP) measurement. Amputations, altered muscle tone or limb deformities can prevent accurate brachial BP measurement. Leg BP measurement is often used instead, but limited data exist to guide clinicians' interpretation of leg BP values for the diagnosis and treatment of hypertension.

### The approach

Individual participant data (IPD) meta-analyses using BP data from 14 studies within the international INTERPRESS-IPD Collaboration were undertaken. We explored cross-sectional relationships between arm and leg SBP using hierarchical linear regression with participants nested by study, in multivariable models. Prognostic models were also derived for all-cause and cardiovascular mortality, and cardiovascular events.

### Findings

Data for arm and leg BP were available for 33,710 individuals (mean age: 58.4 years, mean arm systolic/diastolic BP at baseline: 137.7/79.7mmHg, 44.7% female); 20,191 (59.9%) had hypertension, 4,917 (14.6%) had diabetes and 5,797 (17.2%) had cardiovascular disease. Mean leg SBP was 11.45mmHg (95% confidence interval, 8.10 to 14.80,) higher than arm SBP. Descriptive modelling revealed SBP, female gender, smoking, total cholesterol, diabetes and ischaemic heart disease were associated with reduced arm-leg SBP differences. Age, body mass index and hypertension were associated with increased arm-leg SBP differences. Further analyses are underway and will be presented at the conference.

### Implications

This is the first IPD analysis to describe the relationship between arm and leg SBP using an international cohort. Our findings will support clinicians and patients to use leg BP measurements in detecting and managing hypertension and cardiovascular risk more effectively.

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**Miss Sukhmani Cheema**, Dr Sam Hodgson, Ms Zareena Rani, Ms Doyinsola Olaniyan, Ms Ellen O'Leary, Dr Hermione Price, Prof Andrew Farmer, Dr Hajira Dambha-Miller

### **Population segmentation in type 2 diabetes mellitus: a systematic review**

#### **The problem**

Population segmentation has been proposed as a means to individualize treatment and efficiently target resources in type 2 diabetes (T2D). To date, the methods used to segment populations, and the target populations studied, have not been systematically reviewed.

#### **The approach**

We performed a systematic review in line with PRISMA guidance across multiple databases from inception to July 2020 (PROSPERO ID: CRD4202020660). All English language studies performing population segmentation in adults with T2D were included. Data on study setting, population, methodology, segmenting variables and outcome variables were extracted.

#### **Findings**

Across 350 included studies there were a total of 10,776,009 participants with a mean age of 61.0 years. 6.7% of included studies used data-driven methods and the rest employed expert driven approaches to segmentation. The commonest variables used to segment populations was HbA1c (16.7%); the commonest outcome variable was also HbA1c (23.4%). Segmentation findings were externally validated in 1 of 350 included studies. Many studies excluded population subsets to achieve segmentation aims: for example, omitting elderly patients from observational studies assessing predictors of long-term cardiovascular risk.

#### **Implications**

We provide a comprehensive overview of population segmentation in type 2 diabetes including populations studied, methodologies employed, and variables used to segment populations, in addition to outcomes of interest. We describe a relative paucity of data-driven studies, highlighting gaps for hypothesis generation research.

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## **Parallel Oral Presentations Session 3 (pm):**

### **Adapting to adversity**

**Dr Taeko Becque**, Richard Clarke, Merlin Willcox, Nick Francis, Jennifer Bostock, Caroline Eccles, Zoe Roberts, Adam Geraghty, Xiao-Yang Hu, Mark Lown, Paul Little, Michael Moore, Beth Stuart, Lucy Yardley, Alistair Hay, Nisreen Alwan

### **Use of face masks, social distancing, complementary and other approaches to reduce the risk of developing COVID-19: A survey of self-reported behaviours**

#### **The problem**

Measures to reduce the transmission of Covid-19 are key to restoring the health and wealth of our country and have dominated policy and debate. Key behaviours, like handwashing, face coverings, and social distancing, have been widely promoted or indeed mandated. However, it is not clear how these behaviours have been adopted by different groups, or how this has changed over time.

### **The approach**

We are conducting a web-based survey open to all members of the population aged over 16 who are able to consent. We present descriptive interim data on the frequency of preventive behaviours, before and during the first UK lockdown, and preventive treatments, by gender, age, socio-economic status, ethnicity and month.

### **Findings**

We recruited 3460 participants up until December 2020. Key findings include: 1) a clear increase in the frequency of preventive behaviours during the first UK lockdown compared to before lockdown, and over time; 2) widespread use of complementary approaches to prevent COVID-19: 61% used food supplements, 41% used exercises, and 24% used herbal medicines; 3) more frequent use of face coverings amongst younger participants (compared to those aged 50-79) and amongst those of Black, Asian and Chinese ethnicity (compared to White ethnicity).

### **Implications**

We have identified important differences in reported use of preventive behaviours by age, ethnic group, and over time, as well as widespread use of complementary approaches to try and prevent COVID-19. Future analyses will explore associations between self-reported preventive behaviours and Covid-19. These data may help inform public health messages supporting the management of the ongoing pandemic.

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**Dr Sarah Mitchell**, Catriona Mayland, Phillip Oliver, Clare Gardiner, Helen Chapman, Dena Khan (PPI co-author), Kirsty Boyd, Jeremy Dale, Stephen Barclay

## **Community end-of-life care during the COVID-19 pandemic: Initial findings of a UK primary care survey**

### **The problem**

Thousands of people in the UK have required end-of-life care in the community during the COVID-19 pandemic. Primary healthcare teams (general practice and community nursing services) have provided the majority of this care, alongside specialist colleagues. There is a striking lack of previous research in this area to inform planning.

### **The approach**

To understand the experiences of general practitioners and district nurses providing end-of-life care in the community during the COVID-19 pandemic, a web-based national UK questionnaire survey was circulated via national professional general practice and community nursing networks. Responses were analysed using descriptive statistics and an inductive thematic analysis.

### **Findings**

559 valid responses were received (387 community nurses, 156 General Practitioners (GPs) and 16 unspecified role), from a diverse range of regions across the UK.

Contrasting and potentially conflicting roles emerged between general practitioners and community nurses concerning their response to the increased demand and complexity of end-of-life care during the first phase of the COVID-19 pandemic. Community nurses have taken on more responsibility in most aspects of palliative care practice. The increased use of virtual consultations by general practitioners has resulted in community nurses feeling isolated, and for some there has been considerable emotional distress.

## **Implications**

The critical role of primary healthcare services in addressing the increased need for end-of-life care during the COVID-19 pandemic requires more recognition. Services and professionals have adapted rapidly to the increased need for such care during the pandemic to date. The significant emotional impact, especially for community nurses, needs addressing alongside rebuilding trusting and supportive team dynamics.

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**Mr Benjamin Freed, Julia Gaulty, Debra Bick, Jeremy Dale, Sarah Hillman**

## **The impact of natural and man-made disasters on the access, prescribing, delivery and distribution of contraception in OECD countries: a scoping review**

### **The problem**

To date, no comprehensive review has explored how disasters such as the COVID-19 pandemic impact the access, prescribing, delivery and distribution of contraception. Such information can inform policies, health providers and research and contribute to understanding how to meet contraception needs during disasters.

### **The approach**

A scoping review was conducted to systematically search six electronic databases (2010-2020) to explore how natural and man-made disasters impact the access, prescribing, delivery and distribution of contraception in OECD countries. All articles were screened by two researchers for titles, abstracts and full-texts. A data extraction sheet was developed, and relevant data retrieved. A thematic analysis was used to analyse the data.

### **Findings**

In total 110 articles were included, comprising 108 references selected from two searches (26th June and 9th December 2020) and 2 hand-picked references. From these, five main themes were identified, encompassing: the importance of contraception during disasters; disaster impact on contraceptive usage; disaster-related barriers to contraception; impact of disasters on contraception provision; and aspects of contraception among frontline servicewomen.

### **Implications**

Research and policy should focus on sustaining contraceptive services during disasters and facilitating contraception choice, particularly LARCs. Contraceptive effects such as menstrual suppression should be highlighted to service users, particularly in frontline roles. Telehealth and remote services should be used but their limitations acknowledged with particular consideration to confidentiality. Likely-increased rates of sexual coercion/assault during disasters and greater impact on vulnerable groups, particularly the young, must be considered, and safe provision of contraception to at-risk groups must be prioritised.

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**Dr Liz Payne, Mrs Jackie Seely,** Jo Kelly, Julie Hooper, Rebekah Le Fevbre, Philine Harris, Daniela Ghio, Michelle Sutcliffe, Helen Roberts, Sue Green, Caroline Childs, Sian Robinson, Lily Yao, Shihua Zhu, Bernard Gudgin, Pam Holloway, Kathy Wallis, Paul Aveyard, Paramjit Gill, Leanne Morrison, Lucy Yardley, Mike Stroud, Paul Little

## **Weather the storm or upgrade the canoe: adapting to change in the STREAM project**

### **The problem**

Changes in the research environment, barriers to implementing interventions and unexpected health, social and political events all impact on planned research projects. To avoid research waste, it is essential to adapt projects to unanticipated challenges.

### **The approach**

We undertook a feasibility study, now followed by an RCT, to evaluate a screen and treat intervention for older adults at risk of malnutrition. Challenges included measuring primary/secondary outcomes, recruitment of less well participants and the impact of covid19 restrictions. We addressed challenges by making data-based decisions, consulting with participants, PPI representatives and stakeholders, and being pragmatic.

### **Findings**

Quantitative and qualitative feasibility findings informed changes to trial arms, the primary outcome, and strategies to recruit the least well participants. Uptake from the least well increased from 39/477 (8.2%) to 6/41 (14.6%) (self-report MUST positive). A pause in RCT recruitment and anticipated intermittent covid19 lockdowns meant that intervention delivery in general practices became unworkable. Stakeholder feedback supported novel decisions to deliver the intervention by phone, and send intervention materials to participants to reduce the burden on practices.

### **Implications**

The benefit of challenges is that they ensure that teams revisit and improve plans. In the STREAM project, had we not faced recruitment issues and covid19 restrictions, we might not have reconfigured the RCT to better capture important outcomes, fit the needs of older adults and practices and deliver the project. If found to be effective in the RCT, the current intervention format would be easier to scale up/implement, though we need to continue to adapt to the changing environment.

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## **Parallel Oral Presentations Session 4 (pm):**

### **Consultation**

**Dr Marta Wanat,** Melanie Hoste, Nina Gobat, Alike van der Velden, Christopher C. Butler, Marilena Anastasaki, Femke Böhmer, Slawomir Chlabicz, Annelies Colliers, Karen Farrell, Herman Goossens, Maria-Nefeli Karkana, Christos Lionis, Ludmila Marcinowicz, Katrin Reinhardt, Ingmarie Skoglund, Pär-Daniel Sundvall, Akke Vellinga, Theo J.M. Verheij, Sibyl Anthierens\*, Sarah Tonkin-Crine\* \*Joint last authors

## **Patients and healthcare professionals' (HCPs) experiences of receiving and delivering care during the COVID-19 pandemic: a qualitative study in 8 European countries**

### **The problem**

The COVID-19 pandemic has changed delivery of primary care impacting on reasons for patients seeking help and ways of consulting. This study aimed to explore patients' and healthcare

professionals' (HCPs) experiences of receiving and delivering care during the pandemic in European primary care.

### **The approach**

We conducted 124 interviews with HCPs and patients in 8 countries (UK, Ireland, Belgium, Netherlands, Greece, Poland, Sweden and Germany) between April and July 2020. We analysed data using thematic analysis.

### **Findings**

HCPs in all countries received COVID-19 related queries which went beyond medical advice to include social issues such as childcare, finances or work. HCPs found these difficult to manage due to limited time and insufficient guidance. Patients wanted help to understand public health advice, needing to speak to a trusted source. COVID-19 regulations affected clinician/patient relationship as PPE and remote consultations presented physical or social barriers to usual ways of conducting consultations. Patients largely accepted this initially, less so for patients with severe symptoms and those from Poland and Greece, but with time those in other countries, also felt that remote consultations were insufficient. However, HCPs taking time to understand and address patients' concerns provided reassurance.

### **Implications**

Primary care is well placed to support people in the community, and HCPs need to have sufficient guidance to support their patients' medical and social needs as a result of the pandemic. Both patients and HCPs were flexible in how they deliver and receive care initially but certain groups may prefer face-to-face care in the long-term.

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**Dr Kirsten Smith**, Nick Francis; Mark Lown; Ingrid Muller; Kirsty Rogers; Natalie Thompson; Jennifer Bostock; Margaret Glogowska; Ian Dickerson; Taeko Becque; Christopher Wilcox; Efi Mantzourani; Fee Davies; Paul Little; Michael Moore; Gail Hayward; Alistair Hay; Chris Butler

## **The rapid development of the '4S Sore Throat Tool' to assess sore throats at home**

### **The problem**

Few people benefit from taking antibiotics for sore throats. GPs use several methods to determine whether antibiotics would be beneficial, including clinical prediction rules and throat swabs. Due to COVID-19, GP throat examinations are discouraged and it is not clear whether this can be done by patients at home. This study has developed an online tool and process to assess sore throats at home, using self-assessed clinical scores, swabs and saliva tests.

### **The approach**

An online tool was built, describing how to conduct the self-assessment, use the test kits and return the tests. The tool and process were tested using a 'Think-aloud' method. People with a history of sore throats were recruited using social media and observed remotely as they used the tool, either alone or with their child. Barriers encountered were recorded in a 'Table of Changes', so that the tool could be iteratively improved.

### **Findings**

Eleven participants were interviewed. Several barriers were identified e.g. confusion about the 'uvula', how to package the mouth swabs, compliance of young children. These issues were iteratively improved until feedback was mostly positive, and observation indicated correct test kit use.

## Implications

It seems possible and acceptable for healthy people to conduct self-assessment of their or their child's throat at home. We are now conducting the second stage of the study: assessing feasibility of patients with sore throats using the tool to provide self-assessments and adequate samples, and whether these samples can be processed to guide timely treatment.

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**Dr Mairead Murphy**, Chris Salisbury, Geoff Wong, Jude Hancock, Anne Scott

## The Consultation Open and Close (COAC) Study: a feasibility

### The problem

Use of telephone, video and e-consultations is increasing. Some GPs have also found that these can make consultations quite transactional, potentially missing the effect of symptoms on patients' lives, what they are most concerned about, whether have enough support, and how they are self-managing their health.

### The approach

Design of a pre-consultation form to capture patient concerns, sent electronically before a booked appointment. Easy-to-process, colour-coded report uploaded to the patient record before their GP appointment.

Three practices were recruited sequentially. Two clinicians per practice recruited 15 patients per practice. Clinicians, administrators, and patients were interviewed after each round and improvements made iteratively using a person-based approach. Rounds 1 and 2 took place pre-COVID and round 3 in November 2020.

### Findings

The questionnaire was substantially improved through the person-based approach. Response rates from patients were 15% in round 1 and 42% in round 3.

- Patient benefits included pre-consultation reflection on priorities, feeling more listened to, reassurance, perception of earlier GP action.
- 5 of the 6 clinicians would use the form in normal practice. Benefits included quicker insight into patient problems, uncovering mental health problems, health concerns and social context.
- Administrators found the technical process simple for the purposes of a study, but too laborious to incorporate into normal daily practice.

## Implications

In a post-COVID context where many consultations are taking place by phone, sharing information between patients and GPs in advance of the consultation can make patients more reassured that the GP understands their problems.

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**Dr Alison Cooper**, Dr Andrew Carson-Stevens, Dr Michelle Edwards, Prof Helen Snooks, Prof Niro Siriwardena, Prof Adrian Edwards

### **Exploring opportunities to improve patient safety when GPs work in or alongside emergency departments: realist evaluation**

#### **The problem**

Increasing pressure on emergency services has led to the development of different models of care delivery including GPs working in or alongside emergency departments but with a lack of evidence for patient safety outcomes.

#### **The approach**

We used realist methodology to understand the relationship between contexts, mechanisms and outcomes to develop theories about how and why incidents occurred and how safe care was perceived to be delivered. We developed initial theories from a rapid realist literature review and analysis of a sample of national patient safety incident reports. We tested and refined these theories with qualitative data (observations and semi-structured audiotaped interviews) from a purposive sample of 13 selected hospitals in England and Wales with different service models.

#### **Findings**

There was little evidence in the literature about patient safety outcomes. We identified few national and local incident reports describing diagnostic error associated with these service models. The role of GPs in the services models was influenced by wider system, department level and individual clinician level determinants. We developed a programme theory to describe how safe patient care was perceived to be delivered including: an experienced streaming nurse using local guidance and early warning scores; support for GPs' clinical decision-making with clear governance processes relevant to the intended role (a traditional GP approach or an emergency medicine approach); and strong clinical leadership to promote teamwork and improve communication between services.

#### **Implications**

Our theories can be used as a focus for more in-depth human factors investigations to optimise work conditions in this complex care delivery setting.

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## **Parallel poster presentations Session 1 (pm):**

### **Safer systems**

**Mr Roger Yau**, Jessica Mooney, Haseeb Moiz, Farah Kidy, Andrew Evans, Sarah Hillman, Dan Todkill, **Saran Shantikumar**

### **Associations between socioeconomic deprivation and pharmaceutical prescribing in primary care in England**

#### **The problem**

Socioeconomic deprivation is associated with health inequality. Previous studies have described associations between primary care prescribing rates and deprivation for individual drugs or drug classes. We explore the correlation between socioeconomic deprivation and the rate of prescribing of individual pharmaceutical drugs, and drug classes, in primary care in England, to identify prescribing inequalities that would require further investigation.

#### **The approach**

In this cross-sectional study, national primary care prescribing data, by GP practice, were retrieved for the calendar year 2019 in England. Socioeconomic deprivation was quantified using the Index of Multiple Deprivation (IMD) score. Correlations were calculated using Spearman's rank correlation

coefficient (r), adjusting for practice list size and demographics, with a Bonferroni-corrected p value threshold of  $5 \times 10^{-5}$ .

### Findings

We included 1.05 billion prescription items dispensed from 6896 England practices. 142/206 (69%) drug classes and 505/774 (65%) drugs were significantly correlated with IMD score ( $p < 5 \times 10^{-5}$ ). Of the 774 included drugs, 31 (4%) were moderately positively associated with IMD score ( $r > 0.4$ ). Only one was moderately negatively correlated with IMD score ( $r < -0.4$ ), suggesting higher prescribing rates in more affluent areas. The drug classes most strongly associated with IMD score included opioid and non-opioid analgesics, antipsychotics and reflux medications. Drug classes most strongly associated with affluence included adrenaline, combined oral contraceptives and hormone replacement therapy.

### Implications

We identify novel associations of prescribing with deprivation. Further work is required to identify the underlying reasons for these associations so that appropriate interventions can be formulated to address drivers of inequality.

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**Dr Aleksandra Borek**, Anne Campbell, Monsey McLeod, Christopher Butler, Michael Moore, Sarah Walker, Sarah Tonkin-Crine

## **Supporting the uptake of antibiotic optimisation strategies in high-prescribing general practices: a mixed-methods implementation study**

### The problem

Trial evidence shows that communication skills training, point-of-care C-Reactive Protein testing and delayed prescriptions are effective antimicrobial stewardship (AMS) strategies to reduce antibiotic prescribing/use in general practice. However, use of these strategies in English general practices has been low and inconsistent. We aimed to develop and test an implementation intervention to support the uptake of these three strategies.

### The approach

We co-developed (with healthcare professionals and patients) an implementation intervention comprising: practice champions, practice meetings, website (online training, evidence update, and implementation templates) and provision of leaflets and testing equipment. We recruited high-prescribing practices, provided the intervention and followed them for 12 months. We used surveys (baseline, 3, 12 months) and interviews (5 and 12 months) to assess engagement with the intervention and the three AMS strategies.

### Findings

Nine practices participated in the implementation study. Sixty-two professionals (36 prescribers) completed the 3-month follow-up survey; nine professionals were interviewed. At 3 months, 80% of prescribers thought antibiotic prescribing had improved and most found the AMS strategies helpful, despite 44% of respondents not viewing the website and 35% not attending the practice meeting. The interviews found that the engagement with the intervention differed between practices, and was facilitated by engaged champions and effective communication and impeded by unaddressed and unanticipated barriers (e.g., lack of protected time, staff turnover).

### Implications

Our intervention can facilitate uptake of the evidence-based AMS strategies in some practices, particularly by providing additional resources and supporting champions. However, contextual barriers need to be better addressed in the future.

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**Miss Alice Epps, Charlotte Albury, Oliver van Hecke**

## **Exploring primary care clinicians' views about how best to implement a potential future trial around point-of-care tests for common infections in South Africa**

### **The problem**

Point-of-care tests (POCTs) have the potential to optimise antibiotic prescribing for common infections in primary care. Yet, most of the evidence has come from trials in high-income countries. Clinical trials in low-and-middle-income countries face unique challenges that are context specific. This study aimed to investigate the barriers and facilitators to conducting such a POCT trial in South African primary care.

### **The approach**

Semi-structured interviews with 23 primary care clinicians (doctors, nurse prescribers) in the Western Cape Metro region in South Africa were analysed using thematic analysis.

### **Findings**

Three key themes were identified and centred around their views about proposed trial design and novel POCTs; their perspectives about trial set-up; and specific trial procedures. Overall, participants were enthusiastic about a trial for POCTs and their potential use in their clinics. Key issues identified were the lack of space available, limited technology and internet access and difficulties with patient follow up.

### **Implications**

These insights will be invaluable to inform the design of a future POCT trial in this setting. Trials should not add to the workload of already overburdened clinics. Aspects of trial design such as randomisation and follow up should be carefully considered using the suggestions from this study to ensure feasibility.

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**Dr Yuri Hamashima, Amanda Owen-Smith, Tim Jones, Joanna Coast**

## **Priority-setting and dual agency roles for patient and society: Qualitative analysis of GP consultations**

### **The problem**

General practitioners (GPs) have to allocate scarce healthcare resources in daily practice while also acting as the patient's advocate. This potential conflict is referred to by economists as 'dual agency'. Previous interview studies with GPs show that rationing decisions are predominantly implicit, but it is unclear how GPs convey such decisions to patients whilst still maintaining their role as patient advocate.

### **The approach**

We aimed to investigate how GPs manage patients' healthcare demands for secondary care and understand the context in which priority-setting issues emerge in conversations. This study is a qualitative analysis using the One in a million: Primary care consultation archive. The database holds video or audio-only recordings of 327 consultations between July 2014 and April 2015 in 12 different GP practices across Bristol. Cases were selected based on the patients' pre-consultation survey indicating that they expected to receive a referral. For analysis, we drew on thematic analysis and constant comparative analysis of the transcripts to develop a theoretical elaboration and understanding.

## Findings

We selected 60 consultations for analysis. Following the consultation, 11 of the 60 cases received a referral for specialist care. Within the data, there was evidence of GPs acting at different points as agents both for the patient and the healthcare system including private care. The data suggested that GPs sometimes tried to combine elements of these roles.

## Implications

Rationing decisions during consultations are not necessarily made implicitly. Facing priority-setting, GPs often demonstrated their ability to move between these agent roles and balance how they played out within the consultation.

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**Dr Meriel Raymond Morais**, Dr. Margaret Glogowska, Dr. Oliver Van Hecke, Associate Professor Gail Hayward

## Point-of-care Tests and Technology in Ambulatory Care Paediatrics: Clinician and Stakeholder views

### The problem

Point-of-care tests, also known as bedside tests, give rapid results. They have the potential to identify serious illness in unwell children and improve their clinical management. However, the use of point-of-care (POC) tests and technologies in children is limited. To our knowledge, this is the first interview study to seek the views of a broad range of clinicians and stakeholders on the use of POC tests and technology in paediatric ambulatory care in the UK.

### The approach

The overall aim of this study was to explore clinician and stakeholder views on current use of POC tests and technology in ambulatory care paediatrics; areas of unmet need in which they might be helpful; and their preferred characteristics.

Qualitative semi-structured telephone interviews were carried out with purposively sampled clinicians working in ambulatory care (primary, secondary, interface care); and with charity, industry and policymaking stakeholders. Data were analysed thematically.

### Findings

Participants thought that current POC tests and technologies are limited in terms of availability, ease of use, and interpretation. They highlighted the potential for POC tests and technology to be helpful in detecting acute serious illness and distinguishing between viral and bacterial infection.

### Implications

This exploratory study found that a range of key clinicians and stakeholders thought that the potential of POC tests and technology is not currently being fulfilled in ambulatory paediatric care in the UK. Existing tests are not fit for purpose and could be refined. Industry should be encouraged to develop new POC tests and technology to tackle areas of unmet need, guided by the preferred characteristics of those working on the ground. Particular attention could be given to children with additional needs or unusual illnesses.

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## **Parallel poster presentations Session 2 (pm):**

### **Patient and carer experience**

**Mrs Emily Taylor, Dr. Julia Frost, Prof. Andrew Clegg, Ms. Susan Ball, Prof. Vicki Goodwin**

**Doing what I want and making my own decisions – a qualitative study to inform our understanding of independence in older people.**

#### **The problem**

Independence is desired by many older adults and, therefore, has an important role in clinical outcomes and sustainable services. However, different interpretations of independence compromise shared-decision-making and hinder attempts to identify meaningful predictors of independence.

Aim: To understand what older adults consider important for their independence.

#### **The approach**

Online or telephone in-depth interviews were conducted with participants from the Community Ageing Research 75+ (CARE75+) cohort study recruited from the South West and Yorkshire. Participants were purposively sampled for diversity in age, gender, living status and geographical setting.

Interviews were recorded, transcribed verbatim and analysed using Framework Analysis with deductive and inductive approaches.

#### **Findings**

Thirteen (6 male) participants were recruited (aged 76-98, mean 82 years). Their shared understanding of independence contained three components: physical ability, keeping mentally active, and maintaining autonomy. However, participants varied in the importance and value they applied to each component.

Aspects of self-determination, self-efficacy, confidence and maintaining a positive mind-set were prominent in participants' accounts of independence. Participation in hobbies and life-roles encouraged the development and maintenance of these characteristics.

#### **Implications**

Fundamental components of independence that are shared but valued differently between participants, could provide insight to inform tailored approaches to independence that match individual values and motivations.

The importance of participation in hobbies and assets that support a positive outlook could inform designs for prevention strategies.

Findings, from this study, will inform the selection of variables to be used in quantitative analyses of the CARE75+ dataset to explore whether qualitatively identified characteristics are quantitative predictors of independence.

**Dr Alison Gregory, Dr Emma Williamson**

## **The role of friends and family providing support to survivors of domestic abuse during the COVID-19 pandemic**

### **The problem**

During the COVID-19 pandemic, domestic abuse has increased. The situation is ‘a perfect storm’ because it has worsened and intensified abuse and has closed down routes to support and safety. Since eighty percent of women experiencing DA seek help from friends, relatives, colleagues and neighbours (informal supporters), the UK government and sector specialists have recommended community-based initiatives during this period. Informal supporters are often untrained about DA and their perspectives are rarely sought in research.

### **The approach**

A UK-based qualitative interview study with informal supporters was underway at the start of the pandemic. Additional questions were included in the topic guide to explore how the pandemic itself had impacted people’s assessment of abusive situations, ability to provide support, and coping strategies. A secondary thematic analysis of data provided by 18 participants was undertaken.

### **Findings**

Four themes were generated: (i) Difficulty ‘reading the situation’ and assessing level of risk; (ii) Perpetrators exploiting the pandemic and associated restrictions to further abuse and increase surveillance of survivors; (iii) Trying to offer support within the context of a pandemic, when lives are in turmoil and capacity stretched; (iv) Finding creative solutions to monitor situations, thwart perpetrator behaviours, and continue offering support.

### **Implications**

People close to DA survivors are often very willing to offer informal support, and many have continued to do so during the pandemic, despite a reduced ‘space for action’. To capitalise on this desire to help, we need to ensure that community resources are available to help people offer optimal support.

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**Miss Bethan Treadgold, Dr Ingrid Muller, Dr Emma Teasdale, Prof Neil Coulson, Prof Miriam Santer**

## **Exploring how parents make sense of and act upon online advice and support about childhood eczema: a qualitative interview study**

### **The problem**

Parents of children with eczema are increasingly turning to online forums for advice and support but the quality of advice shared online is mixed. Little is known about how parents make sense of advice from online forums, and how it affects their management of childhood eczema.

### **The approach**

Semi-structured qualitative interviews (face-to-face and telephone) were carried out with 15 parents of children with eczema. Parents were recruited through online advertisements and snowballing. Audio-recordings were transcribed and subsequently coded in Nvivo 12. Transcripts were analysed inductively using thematic analysis.

## Findings

Parents described a number of reasons for visiting online forums: if they felt their information and support needs were not met by health professionals; to exchange emotional support; to share experiences with others; or to seek a potential cure. Parents spoke about how they appraised the trustworthiness of online advice, and sought to make sense of advice through either passively reading content or actively engaging in online discussions to obtain relevant information. Parents described acting upon advice from online forums through discussing content with health professionals, and trying new treatments and methods of managing triggers without consulting medical advice. Parents wanted to be sign-posted to online resources that are medically reliable and meet their needs.

## Implications

Findings could inform health professionals about parents' reasons for visiting online forums for eczema advice and support, how they act upon advice, and the important role that health professionals play in these processes for parents.

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**Dr Eszter Szilassy**, Jessica Roy, Emma Williamson, Katherine Pitt, Mei-See Man, Caroline Coope, Emma Johnson, Elizabeth Emsley, Gene Feder

## Extending the IRIS domestic violence model to other patient groups

### The problem

Primary care plays a key role in responding to patients experiencing or perpetrating domestic violence and abuse regardless of their gender, age, sexuality, or experience. There is, however, uncertainty about the value and effectiveness of integrated training and support programmes addressing the needs of all patients affected by domestic abuse.

### The approach

IRIS is a broadly commissioned, evidence-based primary care training and support programme and is designed to reach female survivors of domestic violence and abuse through general practice. The IRIS+ study (Stage 1 and 2) tested the feasibility of an adaptation of IRIS for all patients affected by domestic abuse, including men and children.

### Findings

Early findings of Stage 2 of the IRIS+ study indicate that the reconfigured IRIS+ intervention is viable in safely and effectively supporting the needs of a broader spectrum of patients, including male victims, children and young people. The feasibility, acceptability, effectiveness and cost-effectiveness of the reconfigured IRIS+ training and advocacy support programme is currently being fully evaluated across two areas in England and Wales.

### Implications

The development and testing of IRIS+ highlights the value of feasibility work in establishing the relevance and viability of modified interventions even when they are based on adapted versions of well-established programmes which have evidence of effectiveness in their original form. In a world of evolving complex interventions and rapidly tweaked implementation, decisions on when and how to evaluate adapted designs can have implications for the future of interventions and the outcome of patients.

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**Ms Amadea Turk**, Stephanie Tierney, Kamal Mahtani, Mike Hobbs, Anne-Marie Boylan, George Edwards, Alice Crouch, Jessy Morton, Anne Ferrey

### **Healthy Community Fair: exploring the social prescribing needs of rural communities through a public engagement event**

#### **The problem**

Social prescribing (SP) is a key NHS policy initiative. It seeks to address social factors that may affect people's health and wellbeing by signposting them to organisations in their community such as social clubs, art and dance, and Citizen's Advice. SP depends on availability of local services, which are often based in urban areas. Less attention has been given to SP for people in rural areas. These individuals may struggle to access and engage in SP activities, risking an increase in health inequity.

#### **The approach**

To help develop and inform a programme of research on SP and health inequalities, we held a one-day public engagement event – a “Healthy Community Fair” - at a community pub in the rural outskirts of Oxford. Throughout the fair we ran a series of creative and accessible activities to help stimulate discussions around SP and community wellbeing.

The activities included: arts and crafts on themes relating to community wellbeing; Lego and plasticine play, Yarnfullness; board games, museum object handling; tap dancing; a photo booth for people to share their views; and a research stall where researchers talked about SP research.

#### **Findings**

The event was attended by 43 people and provided a forum for discussion about research on SP and how it may address issues facing rural communities. These included: the importance of transport, green spaces, ways of keeping in contact, services that involve entire families, and the centrality of strong social networks. We also learned important lessons about planning and running innovative public engagement events.

#### **Implications**

Future research should focus on the role that social connections play in health and wellbeing and the accessibility of SP services. This presentation will also highlight some learning points for running innovative public engagement events.

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## **Parallel poster presentations Session 3 (pm): Long term conditions and the consultation**

**Dr Andrew Turner**, Anne Scott, Jeremy Horwood, Chris Salisbury, Rachel Denholm, Lauren Scott, Mairead Murphy

### **Maintaining face-to-face consulting during the COVID-19 pandemic: a qualitative study in UK primary care**

#### **The problem**

In March 2020 the COVID-19 pandemic required a rapid reconfiguration of UK general practice to minimise face-to-face contact with patients to reduce infection risk. However, some face-to-face contact remained necessary and practices needed to ensure such contact could continue safely. This study examined how practices determined when face-to-face contact was necessary and how it was made possible.

### **The approach**

Longitudinal semi-structured individual interviews with clinical and managerial staff in general practices in the Bristol, North Somerset and South Gloucestershire Clinical Commissioning Group (BNSSG CCG).

### **Findings**

Practices worked within national guidance to determine when face-to-face contact with patients was necessary. For example, prioritising patients according to clinical need, as well as using face-to-face contact to resolve clinician uncertainty or provide adequate reassurance to patients. To make safe face-to-face contact possible and keep patients separated, practices introduced a heterogeneous range of measures that exploited features of their indoor and outdoor spaces and altered their appointment processes. As national restrictions eased over the summer, paused or reduced services were scaled-up again and confidence seeing patients face-to-face grew. However, the reconfiguration of buildings and processes reduced the available capacity and put increased pressure on practices.

### **Implications**

COVID-19 is likely to change the way general practice works for up to 2 years and future pandemic situations are likely. The very different ways that practices in BNSSG organised face to face to minimise infection highlights learning for the future for low-incidence pandemic regions who wish to keep all services in-house to maintain continuity of care.

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**Mr Wilfred Jenkins, Christine A'Court, Claire Reidy, Chrysanthi Papoutsi**

## **The impact of patient initiated cardiovascular self-monitoring on consultation outcomes and clinician attitudes**

### **The problem**

Self-monitoring for cardiovascular conditions has been on the rise during the pandemic, including with traditional and ever more sophisticated, Internet-connected devices. Yet, little is known about the impact on clinical evaluation and decision-making beyond experimental settings.

### **The approach**

We examined the role of self-tracking and remote monitoring devices in cardiology care and the contribution of patient-generated data in clinical decision-making. Methods included: a) content analysis of 1373 community cardiology clinic letters (01-09/2020), comparing periods with different Covid-related restrictions, and b) interviews with cardiologists (n=5) and industry stakeholders (n=4). Data were analysed thematically using the NASSS framework.

### **Findings**

Patient-generated data were mentioned in a minority of letters (13.5%), but the proportion doubled following onset of lockdown 1 (8.3% to 16.6%). 119/185 (64.3%) letters clearly demonstrated direct contribution of data to clinical diagnosis, management or prevention. In few asymptomatic cases, device data seemed to be leading to referrals without clear clinical need. Clinicians saw value in using patient-generated data in the context of remote care, but expressed mixed views on general utility, even frustration with non-discriminating or misleading findings. Industry interviewees identified challenges in integrating new devices in traditional care pathways, including regional variation, and misalignment with changing clinical needs and capacity.

## Implications

As the number of patients with cardiac conditions grows and services become increasingly overstretched, we need to establish a better understanding of how novel, remote monitoring devices can be effectively and equitably used in real world settings. Our work provides transferable learning beyond the Covid context, including implications for clinicians and academic researchers.

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**Prof Chris Salisbury**, Lauren Scott, Mairead Murphy, Rachel Denholm, Rhys Davies, Sarah Price, Jeremy Horwood.

## Changes in potential cancer indicator reporting in primary-care during the COVID-19 pandemic

### The problem

During the COVID-19 lockdown, there were concerns that less patients were consulting GPs with symptoms of potential cancer. We investigated how changes in reporting of potential cancer indicators post-lockdown differed by patient characteristics and in face-to-face vs. remote consultations.

### The approach

Retrospective cohort study in 21 practices in South-West England. Potential cancer indicators were identified using pre-defined code lists for symptoms, signs, test results and diagnoses. Negative binomial regression models compared reporting of potential cancer indicators in April-July 2020 to April-July 2019.

### Findings

During April-July 2020, 35% of registered patients consulted a GP or nurse and 8% reported a potential cancer indicator, compared with 44% and 13% respectively in April-July 2019. This reduction in indicator reporting was consistent across ethnicity, deprivation and shielding status. The reduction was greater in children, men, and adults aged 50-84 year, but less marked in patients with mental health conditions. Reporting of potential cancer indicators reduced in GP face-to-face consultations (IRR=0.88) and increased for remote consultations (IRR=1.22), but despite this, remained lower in remote consulting than face-to-face in April-July 2020.

### Implications

Patient consulting in general, and for potential cancer indicators specifically, reduced during the first-wave of the COVID-19 pandemic. Remote consulting may be part of the reason for the reduction in reporting of potential cancer indicators. Men and older people should be prompted to consult for persistent symptoms that might indicate cancer.

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**Dr Judit Konya**, CE Clark

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

### The problem

Diabetes is one of the most prevalent chronic conditions in the UK with approximately 3.3 million patients living with diabetes in 2019 in England. Diabetes management in the primary care system should be a multidisciplinary process. Pharmacists have an increasingly important role in the community diagnosis and management of diabetes; however, it is not known to what extent they are currently contributing to this.

### **The approach**

The aim of this study is to identify recent or current UK based initiatives involving pharmacists in diabetes care in general practice. Medline and CINAHL databases were searched, with relevant websites such as PSNC and PCDS. Any publication type were included.

### **Findings**

3002 titles were screened, of which 10% were double-screened by two independent reviewers. 21 articles reporting on outcomes were included for data analysis. 19 of these involved community pharmacies, while 2 reported on other pharmacist roles within general practice. The type of included publications were diverse (peer-reviewed research paper, n=14; service evaluation, n=3; service case studies, n=4). Findings 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 improve clinical outcomes where reported. The community pharmacy is a convenient, accessible setting for screening, diagnosing and assisting the management of diabetes.

### **Implications**

Various pharmacist roles can support the care for patients with diabetes in the primary care setting. It is encouraged that general practitioners are aware of services being offered by community pharmacies.

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**Miss Isabella Busa, JA Hirst, JM Ordóñez Mena, Y Yang, FDR Hobbs**

## **Quality of life of older adults with chronic kidney disease: findings from NewKi cohort**

### **The problem**

Quality of life (QoL) is an important measure of disease burden and general health perception. Although consistently examined in advanced chronic kidney disease (CKD), the relationship between earlier stages of CKD and QoL remains poorly understood. Early CKD detection could facilitate timely intervention to prevent kidney function deterioration and minimise comorbid disease.

This study aims to compare QoL of patients with existing and screen-detected CKD. The cohort comprises 1063 participants aged  $\geq 60$  years, recruited and screened in the NewKi longitudinal study.

### **The approach**

Health profile data and multi-attribute index scores were reported for two generic QoL questionnaires: EQ-5D-5L and ICECAP-A. QoL was compared between subgroups, including a transient/borderline CKD control, using ANOVA. Primary findings were obtained from a linear regression model adjusting for determinants of QoL such as age.

### **Findings**

Mean and SD EQ-5D-5L index score was higher for screen-detected ( $0.785 \pm 0.156$ , n=480) than for transient ( $0.779 \pm 0.157$ , n=261) or existing ( $0.763 \pm 0.171$ , n=322) CKD, although differences were not significant ( $p=0.216$ ). Physical EQ-5D-5L domains were more negatively impacted by CKD than mental domains. Effect of CKD on ICECAP-A capability scores was negligible: no meaningful conclusions were drawn between questionnaire domains or CKD subgroups ( $p=0.200$ ).

### **Implications**

QoL for participants with existing CKD diagnoses was not significantly different from those with screen-detected CKD. Overall, QoL impairments were slight (EQ-5D UK mean=0.856). These data indicate that patient burden of early CKD is minor and that detection strategies, such as screening, are not detrimental to QoL. Prospective studies are required to define the relationship between QoL and CKD progression more precisely.

## E-posters

Ash Sexton, Gary Abel, Jeremy Dale, Helen Atherton

### **Telephone based digital triage in urgent care provision: A routine data analysis of patients' service use and health outcomes before and during the Covid-19 pandemic**

#### **The problem**

Urgent care services that provide out of hours care often use digital triage. This involves a health care service staff member using a 'digital triage tool', to help refer the patient to the most appropriate service to receive health care. Whilst digital triage has been utilised in out of hours care for several decades, there has been very limited research into service use, safety and health outcomes in patients that have been triaged.

#### **The approach**

Using large routine datasets from NHS care providers this research aims to understand how patients use digital triage services and their subsequent healthcare service use and clinical outcomes following triage. Datasets spanning before and after the start of the Covid-19 pandemic will be analysed in order to additionally explore changes in trends within these outcomes. Statistical methods will include multivariate and time series regression.

#### **Findings**

Results will be presented in the context of Covid-19 pandemic, with a focus on changes before and after the start of the pandemic. Results will relate to three key areas: 1) service user characteristics, presenting symptoms and urgency of advice given to patients 2) clinical and safety related findings, 3) patients' use of ED following digital triage.

#### **Implications**

Digital triage is central to telephone based care, which has been of increasing importance during the Covid-19 pandemic. This study will identify areas for improvements within digital to ultimately contribute to improved provision of accessible and safe telephone based patient care.

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Mr Abdullah Mukit, Polly Duncan, Sabrina Grant, Katrina Turner, Alastair Hay

### **Primary Care Evaluation of COVID-19 Infection Surveillance in Bristol Network (PRECISION Study)**

#### **The problem**

The COVID-19 pandemic has led to significant changes to healthcare across the globe. GP practices in England have access to surveillance reports of COVID-19 but reports are limited by a non-standardised approach to coding. There is concern from academics that the quality of coding has been poor. The perceived usefulness of surveillance reports to primary care professions is an important evidence gap. This project aims to explore primary care staff views and experiences about the usefulness and potential impact of surveillance reports for COVID-19 and other infectious diseases.

#### **The approach**

A qualitative semi-structured interview approach will be used across 10-15 GP practices in BNSSG CCG. 3 phases of the study consist of: report generation and distribution in partnership with OneCare followed by interviews and follow up interviews with practice professions. Reports will include: heat map of suspected COVID-19 cases in practice catchment area, number of confirmed COVID-19 cases and data on practice acute respiratory tract infection cases. Topic guides will be

used to assess the impact of COVID-19 surveillance reports, how reports could be improved and perceived usefulness of reports. Data will be analysed using thematic analysis.

### **Implications**

As this study is ongoing we expect to explore 'real time' experience of using these reports, identifying the facilitators and barriers to implementation or integration. This will provide useful feedback and recommendations about how these reports can be shared effectively for clinical decision making across practices in England. The project will assess the likely value of reporting for future pandemics and seasonal infectious diseases.

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**Miss Samantha Hornsey, Dr Cathy Hill, Dr Ingrid Muller, Dr Beth Stuart, Prof Hazel Everitt**

## **A qualitative study exploring parental online forum discussions about the management of children's sleep problems, online, in the community and in primary care.**

### **The problem**

Paediatric chronic insomnia (CI) is common and associated with behavioural troubles initiating/maintaining sleep. Primary care provides opportunity to address CI early, however literature specifically about management in primary care (PC) is limited. Further, practice may have changed since the covid-19 pandemic began. Parents also seek advice online, however no published research to date has specifically explored parental discussions on online forums, about the management of children's CI in PC / the community.

### **The approach**

This qualitative study analysed parents/carers' public online discussions about the management of children's sleep problems. It aims to explore parental concerns/expectations, awareness of online, community and PC resources, and perceptions of management in PC. Two public UK parenting forums were searched, with 200 threads reviewed for eligibility. Relevant threads are undergoing analysis in NVivo, using inductive thematic analysis.

### **Findings**

98 threads were included (approx. 326 pages). Early data-driven findings suggest parents share their own routines / practical tips. Parents described various resources (e.g. internet, apps, books, sleep consultants), but not always PC. Some parents described GPs as a last resort or to check for anything else going on. Health visitors were often described in different ways (including behavioural sleep advice and other aspects such as feeding, toileting etc). Attitudes about PC and perceived support from PC appears to vary.

### **Implications**

Early data suggests parents use various resources online and provide peer support, and that they have different perceptions of PC. Final analysis will highlight potential areas for improvement and will direct future research.

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**Dr Judit Konya, STJ McDonagh, P Hayes, G Abel, K Boddy, CE Clark**

## **Diagnosis of peripheral arterial disease in primary care: a survey of general practitioners in England & Ireland**

### **The problem**

Lower extremity peripheral arterial disease (PAD) represents substantial economic and health care burdens and is under-diagnosed. The EuroPAD expert advisory group, convened to raise awareness of PAD, have developed a survey to investigate current general practitioners' (GPs) approaches to

detecting and monitoring PAD throughout Europe. Here we report findings using the English language version from England and the Republic of Ireland (ROI).

### **The approach**

Online survey distributed between January 2020 and January 2021. We surveyed GPs in England and ROI regarding their diagnosis and management of people with PAD.

### **Findings**

111 surveys were completed (68, England; 43, ROI); GP mean age 45.7 (SD 9.5) years, 78% from urban or semi-rural practices. 77% of GPs reported only palpating lower limb pulses in the presence of symptoms suggesting PAD, and only 20% specifically in patients with cardiovascular risk factors who present with rest pain or claudication. Whilst no differences in clinical approaches between England and ROI were noted, only 25% of English GP practices do not measure ankle-brachial index compared to 55% in ROI ( $p < 0.05$ ). After revascularisation for PAD 14% of GPs do not regularly follow these patients up. Those who do are more likely to re-refer to vascular specialists when required in England (56%) compared to ROI (29%);  $p < 0.02$ .

### **Implications**

Our findings seem to confirm poor awareness of PAD in English and Irish primary care settings, and offer insight into areas of diagnosis and management amenable to intervention. Data analysis continues and full results will be presented to conference.

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**Miss Georgette Eaton, Geoff Wong, Veronika Williams, Nia Roberts, Kamal Mahtani**

## **The Potential Contribution of Paramedics in Primary and Urgent Care**

### **The problem**

Within the United Kingdom, there are now opportunities for paramedics to work across a variety of healthcare settings, away from their traditional ambulance service employer, with many opting to move into primary care.

### **The approach**

We undertook a systematic review of published literature to provide an overview of the types of clinical roles paramedics are undertaking in these settings within the United Kingdom. We searched MEDLINE, CINAHL, Embase, NICE and the Cochrane Database from 2004 to 3 February 2019 for papers detailing the role, scope of practice, clinician and patient satisfaction and costs of advanced paramedics in primary and urgent care settings. Free-text keywords and subject headings focussed on two key concepts: paramedic and general practice/primary care. 6765 references were screened by title and/or abstract. 24 papers were included after full-text review.

### **Findings**

Key findings focussed on the description of the clinical role; the clinical work environment; the contribution of paramedics to the primary care workforce; the clinical activities they undertake; patient satisfaction; and education and training for paramedics moving from the ambulance service into primary care.

### **Implications**

Current published research identifies that the role of the paramedic working in primary care is being advocated and implemented across the UK. However, there is insufficient detail regarding the clinical contribution of paramedics in these clinical settings. More research needs to be done to determine how, why and in what contexts advanced paramedics are now working in primary care.

Miss Katharine Powell, Professor Kerry Hood, Dr Haroon Ahmed, Mandy Lau

## **Comparing primary and secondary care sites in the effectiveness of a multimodal intervention for the frail and pre-frail older population: a secondary analysis of an international cluster-randomised trial**

### **The problem**

Frailty is an important emerging complication of diabetes in older adults. Management of this older population requires an individualised approach, considering comorbidities and declining functional capacity. Given general practice lends itself to a more holistic approach to care, comparing primary and secondary care sites is of clinical interest.

### **The approach**

This study aims to perform a secondary analysis of the MID-Frail cluster-randomised trial to examine the differences between primary and secondary care sites in terms of patient case mix, adherence to the intervention, and effectiveness outcomes. This analysis focusses on England and Spain, as they were the only countries including primary care sites. Any reasons for patient withdrawal will be explored.

### **Findings**

The MID-Frail cluster-randomised trial delivered a multimodal intervention comprising an exercise, nutritional and educational programme for the frail and pre-frail older population with diabetes, recruiting 964 people. The study found a clinically important improvement in functional status, with a mean SPPB score 0.85 points higher in intervention group (95%CI, 0.44 to 1.26,  $p < 0.001$ ).

A total of 396 participants were recruited from England and Spain, with 15.4% from primary care sites. Patients in managed in primary and secondary care were similar, however a greater proportion of frail patients were managed by secondary care ( $p=0.049$ ), where patients also scored lower for activities of daily living ( $p<0.001$ ).

The secondary analysis is currently underway.

### **Implications**

This study will help guide optimum service delivery and intervention implementation for the frail and pre-frail older population with diabetes, and highlight any key factors resulting in intervention withdrawal.

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**Dr Glenn Simpson**, Hajira Dambha-Miller, Lucy Hobson, Doyinsola Olaniyan, Sam Hodgson, Paul Roderick, Simon DS Fraser, Paul Little, Hazel Everitt and Miriam Santer

## **Integrating primary care and social services for older adults with multimorbidity: A qualitative study**

### **The problem**

Growing demand from an ageing population, chronic preventable disease and multimorbidity has resulted in complex health and social care needs requiring more integrated services. Integrating primary care with social services could more efficiently utilise resources, and improve experiences for patients, their families and carers. There is limited evidence on progress including key barriers and drivers of integration to inform large-scale national change.

## The approach

While we approach this research from a primary care and social care perspective, it is evident that any study of integration must be framed within a systems-wide context [14], which takes account of all dimensions of health and social care. Using this holistic approach, we conducted a qualitative interview study with key stakeholders delivering and using these services.

We used a semi-structured interview method with maximum variation sampling to capture stakeholder views across a range of services and professions. A total of thirty-seven interviews were conducted across a number of English regions. Participants recruited to the study included GPs, nurses, social care staff, commissioners, local government, voluntary and private sectors, patients and carers.

To analyse the data, we employed an iterative form of inductive thematic analysis.

## Findings

Drivers of integration included groups of like-minded individuals supported by good leadership, expanded interface roles to bridge gaps between systems and co-location of services.

Barriers included structural and interdisciplinary tension between professions, organisational self-interest and challenges in record-sharing.

## Implications

Drivers and barriers to integration identified in other contexts are also present in primary care and social services. Benefits of integration are unlikely to be realised if these are not addressed in the design and execution of new initiatives. Efforts should go beyond local and professional level change to include wider systems and policy-level initiatives. This will support a more systems-wide approach to integrated care reform, which is necessary to meet the complex and growing needs of an ageing multimorbid population.

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**Mrs Penny Seume**, Grace Young, Jenny Ingram, Patricia Lucas, Jodi Taylor, Alastair Hay, Pdraig Dixon, Sam Creavin, Jeremy Horwood, Athene Lane, Elizabeth Beech, Peter S. Blair

**An efficiently designed RCT in primary care clustered at the practice level using routinely collected CCG data as the primary outcome: barriers and facilitators from the CHILDren's COugh (CHICO) study.**

## The problem

Asking primary care clinicians to recruit patients within consultations for acute conditions increases the potential for selection bias. A 'hands-off' design that avoids individual-patient recruitment, embeds the intervention within practice systems and uses routinely collected outcome data may prove more efficient.

## The approach

The CHILDren's COugh (CHICO) cluster RCT is investigating the effects of an intervention embedded within EMIS combining a clinician-focused algorithm (STARWAVE), elicitation of parental concerns, and targeted home-care advice, on routinely collected antibiotic dispensing and hospitalisation data by Clinical Commissioning Groups (CCGs via Medicines Management).

## Findings

We recruited and randomised 294 practices (144 intervention arm) from 47 CCGs in all 15 English Clinical Research Networks (CRNs) including 4.2% of 0-9 year olds nationally. Recruitment of CCGs and then practices took longer than anticipated (24 months) although we reached 95% of our target.

Practice size was more variable than expected (ranging from 148 registered children to 6964) and mergers between practices and CCGs during the study period proved challenging. Access to research-naive practices (to improve generalisability) via CRNs was difficult as was finding the best contact in some CCGs. Barriers to embedding the intervention included practice-specific IT-system variability (eg system version and how pop-ups were handled) and generic updates from EMIS (eg Snomed). Of the 222 (76%) practices that have completed 12-months participation in the study we have collected 99% of primary outcome data.

### **Implications**

CCG and practice level recruitment difficulties emerge when conducting efficient-designed trials but may reduce if these designs become more common.

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**Dr Lien Bui**, Rachel Dewar-Haggart, Emilia Trapasso, Tasneem Patel, Emma Corcoran, Molly Bird

## **Patient-reported outcome measures (PROMs) for monitoring primary care patients with depression (PROMDEP): A qualitative study on practitioner perceptions of taking part in a randomised controlled trial**

### **The problem**

Depression is the third most common reason for a consultation in general practice in the UK. While PROMs might have been used by general practitioners to aid screening for depression at first consultations and for treating depression at later follow-up appointments, there is a lack of evidence on whether PROMs used systematically actually improve patient outcomes in a randomised trial in the UK.

### **The approach**

A qualitative study within a RCT has been conducted to explore practitioner views of their involvement in the study. A practitioner qualitative interview guide has been developed since the beginning of the RCT and revised after the first set of interviews to fit the changes in the current situation of the covid-19 pandemic.

Semi-structured interviews have been carried out to explore practitioner experiences of being involved in the study. More specifically, the interview guide has been used to investigate practitioners' overall experiences of taking part in the trial, the use of the PHQ-9 PROM and the patient explanation infographic in follow-up appointments with patients (in the intervention arm), and the recruitment process and training provided.

Thematic analysis has been used to analyse the data with seven themes and 18 codes drawn out for practitioner interviews. Two researchers worked independently on the interview transcripts to identify the themes and codes with specific evidence supporting quotes added for illustration.

### **Findings**

Initial findings suggest that practitioners find the use of PHQ-9 in consultations beneficial to patients. There are, however, certain barriers to using the PHQ-9 for practitioners in which monetary incentive to use the PHQ-9 and time pressure are the two most common ones. Follow-up consultations have been perceived by practitioners as a means to discuss with patients their thoughts and feelings around how their PHQ-9 scores change and how treatment may or may not have helped them. It is also suggested from the findings that practitioners were confident in providing treatment for depression. Although practitioners had experience of using the PHQ-9 in treating depression in the past, there were no specific guidelines on score

interpretation provided previously, while in the study they received useful training. Regarding the recruitment process, practitioners expressed their particular preferences over which recruitment method was preferred and how to approach suitable patients. Overall, practitioners provided both positive and negative comments on their experiences of taking part in the trial and their recommendations for the future conduct of the project.

### **Implications**

Preliminary findings from the first set of qualitative interviews suggest that using PROMs might be helpful in treating patients with depression, given their ease of use and low cost. Practitioners have also expressed their confidence in using PROMs to monitor their patients, though there are still certain barriers to using them, which need to be taken into consideration if the implementation of PROMs is to be rolled out in general practice in the UK primary care again in the future. This study is important in a way that if the final outcomes of using PROMs in providing treatment to depression are proved to be beneficial, it would help not only patients at an individual level but the burden of depression on the health service should be improved considerably.

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**Dr Diana Wasag, Dr Rebecca Cannings-John, Dr Kathryn Hughes, Dr Haroon Ahmed**

## **Antibiotic prescribing during COVID19 pandemic: analysis of Welsh primary care dispensing data from January 2019 to October 2020**

### **The problem**

It is unclear how COVID-19 has affected antibiotic prescribing in Primary Care.

### **The approach**

We analysed trends in oral antibiotic dispensing from January 2019 to October 2020 for Wales as a whole, and by individual Health Board. We analysed trends for broad and narrow antibiotics and for individual agents. For the purpose of this analysis co-amoxiclav, cephalosporins and quinolones were treated as broad spectrum antibiotics, as per the UK 5-year AMR plan. We used regression models to estimate changes in trend that occurred pre-and post-March 2020.

### **Findings**

Since the onset of pandemic in March 2020, we observed a reduction in antibiotic dispensing, with an average decrease of 10.12 antibiotic items/1000 patients  $t(20)=3.79$ ,  $p=0.0011$ ,  $95\%CI(4.55,15.68)$ . This reduction was primarily driven by narrow spectrum antibiotics. Statistically significant reductions were observed for antibiotic dispensed for treatment of respiratory tract infections (RTIs) such as amoxicillin, doxycycline, clarithromycin, erythromycin, phenoxymethylpenicillin and co-amoxiclav.

Prescribing of antibiotics primarily used for urinary or skin infections remain stable.

Health Boards with above average rates of prescribing continued to be high prescribers, but with similar decreases in dispensing rates than observed among other Health Boards. However, these differences are likely to be due to differences at GP practice level rather than Health Boards.

### **Implications**

Despite rapid changes to methods of consultation and the complexities of consulting during the Pandemic, we did not identify any significant increase in antibiotic prescribing for RTIs during this time. The relative stability of prescribing of antibiotics for skin and urinary tract infections is reassuring.

**Dr Sharon Dixon**, Lucy Frost, Claire Hawcroft, Rebecca Cox, Gene Feder, Sue Ziebland, Catherine Pope

## **Understanding GP perspectives on managing safeguarding in primary care via remote consulting as necessitated by the covid-19 pandemic.**

### **The problem**

COVID-19 required GPs to pivot to remote care. This exacerbated patient vulnerabilities. There was no evidence to inform safeguarding.

### **The approach**

Qualitative interview study with 18 GPs in England.

### **Findings**

GPs experienced remote consulting as more “transactional”, they worried about missing observational cues and safeguarding opportunities. Supporting known vulnerable patients was difficult; identifying those made vulnerable was harder.

Remote consulting was experienced as riskier, and emotionally draining. GPs described reduced job satisfaction, but developed innovative strategies for safeguarding.

### **Implications**

How primary care identifies and responds to safeguarding in the pandemic needs urgent consideration in practice and in policy.

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**Miss Molly Timlin**, Kerry Hood, David Gillespie, Adam Williams, Darren Cousins

## **Fast Track Cardiff initiative: a systematic review of interventions aiming to reduce self-stigma in people living with HIV**

### **The problem**

Stigma is persistent in people living with HIV and those at risk of acquiring HIV, but the effectiveness of interventions to reduce stigma are less known. Self-stigma can exacerbate physical and mental illness and can cause PLWH to believe they are unworthy of care and be a barrier to testing in those at risk; thus its elimination is one of the United Nations AIDS targets for 2030.

Cardiff has recently signed up to be a Fast Track City with a multi-sector partnership committed to meeting the UNAIDS goals. It is keen to identify potential interventions for implementation in Cardiff and Wales with some evidence of effectiveness.

### **The approach**

This systematic review aims to evaluate the current evidence for the effectiveness of interventions to reduce self-stigma amongst PLWH and key populations in high income countries.

This will be met through the following objectives:

- Systematically identify evaluations of interventions used to reduce self-stigma amongst PLWH and key populations
- Characterise the types of interventions that reduce self-stigma
- Evaluate the effectiveness of the interventions described
- Develop a recommendation for further work in the field in order to apply the findings to clinical practice and wider society

Studies will be identified using Medline and CENTRAL. All titles and abstracts will be screened and those which pass will undergo full text assessment. The Cochrane Risk of Bias Assessment Tool will be used to account for flaws in the experimental design. A funnel plot will be produced to assess the risk of publication bias in the studies. If possible, meta-analysis will be undertaken with an assessment of heterogeneity using STATA. This will depend upon the amount, the quality and the heterogeneity of the available data. If meta-analysis is inappropriate, narrative synthesis will be undertaken. If possible, subgroup analysis will be undertaken of: HIV status and Classification of interventions.

Once a clear classification of evidence is synthesised, this will be presented to the Fast Track Cardiff Steering Group to explore using an implementation framework, what might be achievable within the city and its wider region.

### **Findings**

Currently reviewing papers for inclusion, but will have completed by the meeting

### **Implications**

This study is set up to have a direct impact on decisions made within the city. Where there is an absence of evidence then something will be developed or identified evidence based interventions will be adapted for use. In either case further evaluation will be planned.

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