

# ANNUAL TRAINEES EVENT

9 - 10 September 2019  
Pembroke College  
Oxford



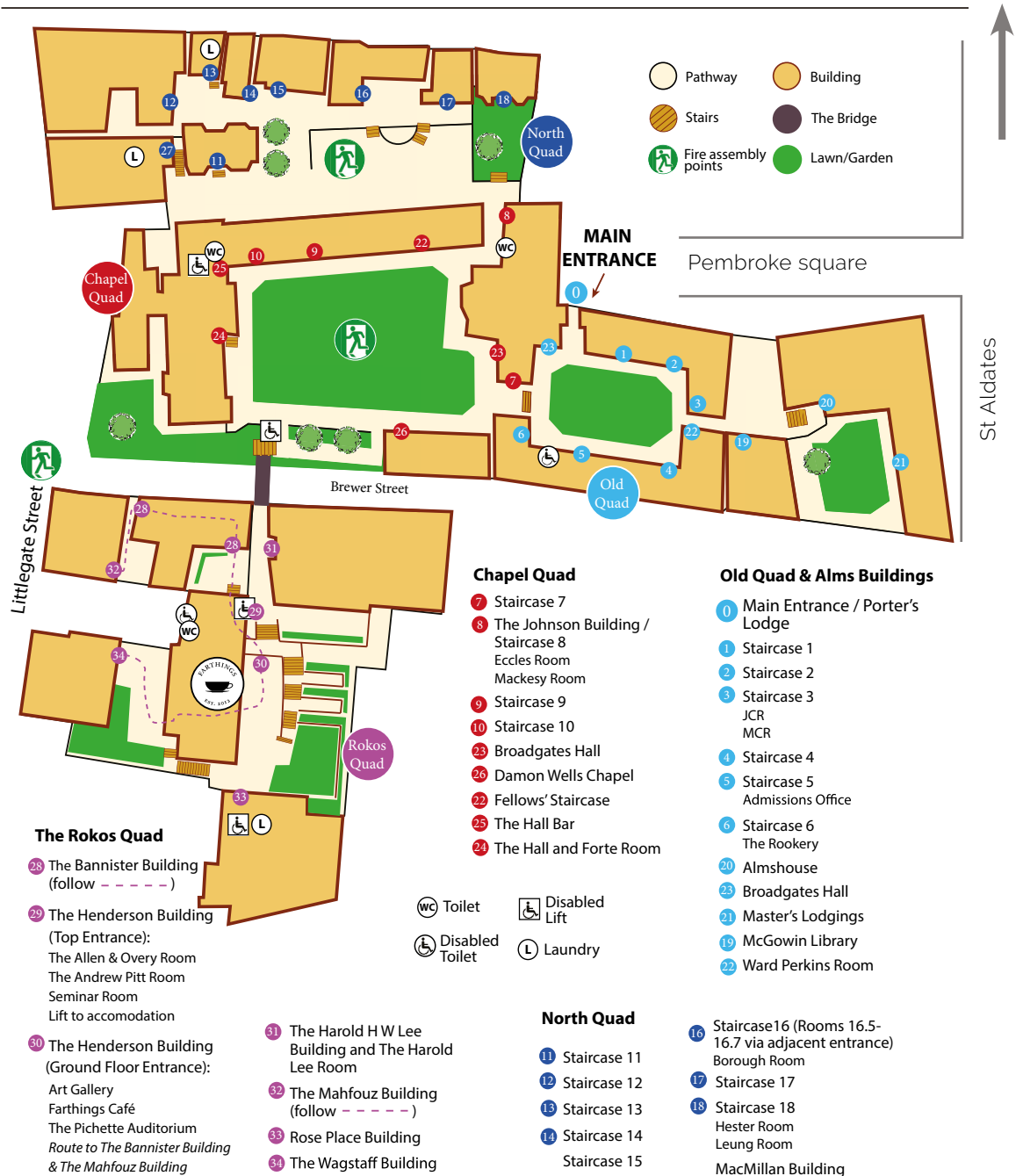
Google maps: <https://www.google.com/maps/place/Pembroke+College/@51.750011,-1.2580209,18.5z/data=!4m5!3m4!1s0x4876c6b004f7452d:0x24ff2521f500dce4!8m2!3d51.750029!4d-1.2575176>

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# PEMBROKE COLLEGE OXFORD

Town centre  
High Street  
Cornmarket



**Check in:** tbc

**Check out:** Please bring luggage to leave in the Pichette Auditorium.

**Internet access:** Eduroam

**Social media:** When tweeting, please use @NIHRSPCR and #spcrtrain19

## WELCOME

Welcome to the 2019 SPCR Annual Trainees' Event and to Pembroke College, Oxford. One of the main aims of the School's capacity programme is to provide a strong foundation for future leaders in primary care research. We hope our two day event contributes to this by allowing the space to network and exchange ideas in a supportive and nurturing environment.

## STRENGTHENING THE BODY OF RESEARCH: 2019 SHOWCASE

Later this year we look forward to celebrating our tenth cohort of trainees at the Royal College of Physicians in London.

The event, 'Strengthening the body of research' will showcase the achievements of current and past SPCR trainees. Personal stories of career development and case studies will be used to illustrate innovative research. In particular, we hope to highlight the successes beginning to emerge from our support of early career researchers with examples how this has led to the development of expertise, collaboration and established areas of research. We are incredibly proud of our trainees and look forward to celebrating all their many achievements in November.

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**PROGRAMME**
**Monday 9 September**
**DAY ONE**

9.30 - 10.30	Coffee, registration and elevator pitch preparation (for day 1 and 2)		Pichette Foyer and Auditorium
10.30 - 11.00	Welcome and introductions Business card icebreaker	Richard Hobbs and Christian Mallen	Pichette Auditorium Pichette Foyer
11.00 - 11.45	Engaging with the Clinical Research Network	Philip Evans, NIHR CRN	Pichette Auditorium
11.45 - 12.25	Writing tips: Research Design Services		
12.25 - 13.00	Parallel Session 1		
	1. The Dos and Don'ts of writing a PhD/DPhil	Amy O'Donnell	Andrew Pitt
	2. Tips on writing successful research grants: Perspectives from a mid-career researcher The funder's perspective	Adam Geraghty NIHR	Pichette Auditorium Allen & Overy
	3. Tips on writing successful fellowships Perspectives from a mid-career researcher A funder's perspective	Hajira Dhamba-Miller NIHR	Littlegate
13.00 - 13.45	Group photograph Lunch		Rokos Quad Pembroke Hall
13.45 - 14.45	Elevator pitch session 1 Group 1 Group 2 Group 3	Allocated groups on page 4	Pichette Auditorium Andrew Pitt Allen & Overy
14.45 - 15.15	Refreshments and networking		Pichette Foyer
15.15 - 16.15	Elevator pitch session 2 Group 1 Group 2 Group 3	Allocated groups on page 4	Pichette Auditorium Andrew Pitt Allen & Overy
16.15 - 17.00	PPI: INVOLVE standards for NIHR applications.	Steven Blackburn	Pichette Auditorium
17.00 - 17.30	Parallel Session 2 - Personal career journeys 1. Clinical 2. Non-Clinical	Brian Nicholson Katrina Turner	Allen & Overy Pichette Auditorium
17.30	Free time to explore Oxford		
19.30	Dinner (if you have specified dietary requirements, please bring your name badge)		Pembroke Hall

**17.30 - 18.30 Board meeting in Andrew Pitt**

**Tuesday 10 September**

**DAY TWO**

8.00 - 9.00	Breakfast and luggage to porter's lodge		Pembroke Hall
9.00 - 10.30	Parallel session 3		
	1. Public engagement workshop	Esther van Vliet	Andrew Pitt
	2. Public involvement workshop	Anne Marie-Boylan	Allen & Overy
10.30 - 11.00	Refreshments and networking		Pichette Foyer
11.00 - 12.00	Parallel session 4		
	1. Research impact	Sarah Thomas, NIHR	Pichette Auditorium
	2. Influencing policymakers & funding services	Lesley Wye	Allen & Overy
	3. Using QResearch-linked database to generate new knowledge and tools to improve patient care	Julia Hippisley-Cox	Andrew Pitt
12.00 - 12.30	Evidence Synthesis Working Group	Kamal Mahtani	Pichette Auditorium
12.30 - 13.15	Lunch		Pembroke Hall
13.15 - 13.30	Skills development days	Georgia Richards	Pichette Auditorium
13.30 - 14.15	Keynote: The DataLab: what we've learnt from four years of turning data into tools as well as papers	Ben Goldacre	Pichette Auditorium
14.15 - 14.30	Closing comments	Richard Hobbs	Pichette Auditorium

**THANK YOU TO OUR PROGRAMME COMMITTEE**

Georgia Richards, Lucy Pocock, Jemima Dooley, Ben Bowers, Georgina Fletcher, Esther van Vliet, Ellie Morgan-Jones and Kate Farrington.

### **SPCR DIRECTOR**

Richard Hobbs

### **SPCR TRAINING DIRECTOR**

Christian Mallen

### **SPCR TRAINING LEADS**

University of Bristol	Debbie Sharp, Rebecca Barnes and Alice Malpass
University of Cambridge	Fiona Walter
Keele University	Christian Mallen and Jo Protheroe
University of Manchester	Tom Blakeman
University of Newcastle	Barbara Hanratty
University of Nottingham	Nadeem Qureshi
University of Oxford	Paul Aveyard, Katherine Tucker and Gail Hayward
University of Southampton	Hazel Everitt and Mark Lown
University College London	Kate Walters and Shoba Poduval

### **SPCR DEPARTMENT LEADS**

University of Bristol	Katrina Turner and John Macloed
University of Cambridge	Jonathan Mant
Keele University	Danielle van der Windt
University of Manchester	Peter Bower
University of Newcastle	Louise Robinson
University of Nottingham	Joe Kai
University of Oxford	Richard McManus
University of Southampton	Paul Little
University College London	Elizabeth Murray

# Elevator pitch presentation schedule

	<b>GROUP 1</b> PICHETTE AUDITORIUM	<b>GROUP 2</b> ANDREW PITT	<b>GROUP 3</b> ALLEN & OVERY
<b>DAY 1</b> 13.45 - 14.45	Gemma Spiers Kate Ellis Kieran Ayling Jemima Dooley Mio Hu Kome Gbinigie Orla Whitehead  <u>Facilitators:</u> Deborah Sharp Fiona Walter	Magdalena Nowakowska Rachel Dewar-Haggart Johanne Dow Artaza Gilani Ben Fletcher Laura Swaites Ralph Akyea  <u>Facilitators:</u> Kate Walters Christian Mallen	Claire Burton Fabian Sailer Buddhika Fernando Douglas Hardman Bethany Bareham Athena Ip Charlotte Archer  <u>Facilitators:</u> Tom Blakeman Katherine Tucker
<b>DAY 1</b> 15.15 - 16.15	Edward Holmes Emily Johnston Asli Kalin Yumna Masood Elizabeth Westhead Ben Bowers Laurie Davies  <u>Facilitators:</u> Rebecca Barnes Mark Lown	Ananya Namdeo Kym Snell Bethan Treadgold Ashley Hammond Chris Morton Barry Coughlan Georgia Richards  <u>Facilitators:</u> Barbara Hanratty Gail Hayward	Samantha Hornsey Alexandra Jager Jo Jordan Kelly Birtwell Daniel Stow Paul Teed Mohana Ratnapalan  <u>Facilitators:</u> Jo Protheroe Shoba Poduval

## ELEVATOR PITCH INSTRUCTIONS

All presentations to be uploaded in rooms beforehand.

Allocated time for each presentation: 3 minutes

Questions: 5 minutes

# Abstracts

## Ralph Akyea

PREDICTING MAJOR ADVERSE CARDIOVASCULAR EVENTS FOR SECONDARY PREVENTION: SYSTEMATIC REVIEW AND META-ANALYSIS OF RISK PREDICTION MODELS

### Background

Cardiovascular disease (CVD) remains the leading cause of mortality globally. However, with improvement in patient management, there is a large proportion of people (1 in 17 of the global population) living with this long-term condition. The prognosis of patients diagnosed with CVD is sub-optimal, mainly due to the risk of recurrent adverse coronary events being greatest during the first year, but persisting over one's lifetime. To make a meaningful difference to the health and wellbeing of these individuals with established CVD, secondary prevention aimed at preventing a recurrence is a major priority.

### Aim

To assess the prognostic performance of prognostic prediction models for severe cardiovascular disease (CVD) in adults with an established diagnosis of CVD.

### Methods

Four (4) databases have been searched: Ovid MEDLINE (R) (1946 – present), EMBASE (1883 – present), and PsycINFO (1860 – present), for articles published in peer-reviewed journals, using search terms that cover expressions for cardiovascular disease, risk scores, and predictive performance assessment. Full-text screening for inclusion, quality assessment, and data extraction will be done independently by 2 reviewers.

### Results

The initial electronic search generated 4,178 records, including 1,615 citations from OVID Medline, 1,217 citations from OVID EMBASE, 75 citations from OVID PsycINFO and 1,271 citations from Web of Science. After removal of duplicates (n=1,499), the titles and abstracts of 2,679 citations have been screened.

### Implications

The findings of this review will contribute to the existing literature by identifying the current and most effective risk prediction models used to stratify CVD severity. The review will also provide an evidence base for the development of a risk stratification model in primary care.

## Charlotte Archer

PATIENTS' AND PRACTITIONERS' VIEWS ON DETECTING, DIAGNOSING AND MANAGING ANXIETY DISORDERS IN PRIMARY CARE.

Anxiety disorders are a common mental disorder, with a 40% increase in generalised anxiety disorder reported in the general population between 2007 and 2014. Whilst General Practitioners' (GPs) recording of anxiety symptoms has also increased, GPs' recording of anxiety disorders decreased between 1998 and 2008. It is not clear why there is a disparity between the increase seen in the general population and estimates based on GP recordings, but it may be due to a reluctance by GPs to label patients with an anxiety disorder, or a tendency to record depression instead of anxiety.



In-depth interviews were held with 20 patients and 15 GPs, to understand how they viewed and experienced the identification, diagnosis and management of anxiety disorders in primary care. Interviews were audio-recorded, transcribed verbatim, and analysed thematically.

Emerging findings suggest that GPs prefer to use symptom codes or 'mixed anxiety and depression' rather than code for an anxiety disorder, and tend not to differentiate between anxiety and depression during discussions with the patient. However, patients commented it was important that GPs distinguished between anxiety and depression, in terms of the causes, symptoms, and impact on their life, and felt the two should be treated separately. Furthermore, patients felt that whilst stigma around depression has decreased, it has not for anxiety. Patients also felt GPs viewed anxiety as less serious than depression, and understood anxiety less well. Therefore, whilst GPs tend not to focus on anxiety, patient accounts suggest that it should be considered and treated separately from depression.

## **Kieran Ayling**

### **Objective**

Positive mood on the day of vaccination has been associated with subsequent antibody responses to the influenza vaccine in older adults. The primary aim of this trial was to examine whether a brief intervention was able to enhance positive mood at the time of vaccination in a clinical context. Secondary aims included exploratory analyses of the effects of the intervention on non-specific and influenza-specific immunity.

### **Methods**

One hundred and three older adults (65-85 years) participated in a two-arm, parallel, single-blind, randomised controlled trial. Participants viewed either a 15-minute video package designed to induce positive mood or a matched neutral control video, immediately prior to receiving a standard dose quadrivalent influenza vaccination. State affect and secretory IgA levels were assessed immediately prior to, and following, the interventions. Antigen-specific IgG responses to the vaccination were assessed at 4 and 16-weeks post-vaccination.

### **Results**

The positive mood intervention resulted in significant improvements in state positive affect, compared with the neutral control. Secretory IgA levels significantly increased across both groups. Antigen-specific IgG responses to influenza vaccination were not statistically significantly different between groups, although point-estimates of effect size favoured participants who viewed the positive mood intervention for most strains at both 4 and 16-weeks post-vaccination.

### **Conclusions**

A 15-minute intervention can improve positive mood in older adults prior to vaccination. Future trials should examine whether enhancing mood at the time of vaccination could enhance the effectiveness of influenza vaccination on patients and benefit health services.

## **Bethany Bareham**

ACCEPTABILITY AND EFFECTIVENESS OF ALCOHOL USE SCREENING AND BRIEF INTERVENTION FOR OLDER PEOPLE IN PUBLIC SPACES

### **Background**

Drink Wise Age Well (DWAWE) is a UK-based programme working to address alcohol-related harm amongst the older adults; the age group most likely to experience negative consequences resulting from their alcohol use. Alcohol use screening and brief intervention (SBI) is a preventive initiative incorporated within

this programme. Older people are supported to explore risks in their drinking, and how they might make healthy changes. This service is provided in public spaces. Due to sensitivities in discussing alcohol amongst this age group, it is important to understand perceptions regarding the acceptability of receiving this intervention in public spaces; and how this setting may affect engagement.

### **Methods**

Interviews and focus groups were conducted with 16 older adults who had received DWAW SBI in public spaces; and 12 service providers. Data were analysed thematically.

### **Results**

SBI in public spaces was broadly perceived to be acceptable. Most service recipients reported having made some changes in their drinking following SBI; often motivated by new insights into excesses in their alcohol use. Roles of alcohol in older adults' lives, and their understanding of 'problematic' drinking were barriers for those who did not make changes. Those uncomfortable with their alcohol use did not view public discussion as acceptable. This limited their engagement, and disclosure to providers.

### **Conclusions**

DWAW SBI supported older people to manage their drinking knowing how their intake compared to guidelines for lower-risk alcohol use guidelines. This initiative is unlikely to engage those who already view their alcohol use to be problematic.

## **Kelly Birtwell**

### **Background**

Brief mindfulness-based interventions (MBIs) that are shorter and less intensive than the standard 8-week courses could provide health benefits to patients while requiring fewer resources to implement at scale. However, brief MBIs are typically developed ad hoc and lack a clear rationale for the components they include. The aim was, in two independent studies, to identify what MBI components teachers and mindfulness course attendees think would constitute an effective brief MBI.

### **Methods**

Mindfulness teachers and mindfulness course attendees were recruited to complete an online survey (N=42) and a novel "MBI course planning activity" study (N=21). Data were collected regarding attitudes to brief MBIs and MBI components, as well as the minimum size and shape of an effective brief MBI. Mixed methods of analysis were employed.

### **Results**

Both studies suggest that a brief MBI should consist of at least five 90-minute sessions and should include focused attention practice, informal mindfulness, three-step breathing space, group discussion ('inquiry') and psychoeducation. Mixed opinions were expressed regarding: the body scan practice, mindful movement, open monitoring practice, and the 'sitting with difficulty' practice. Four qualitative themes were generated from questions about the advantages, disadvantages and general comments about brief MBIs: accessibility, learning to practice mindfulness, positive effects and caution.

### **Discussion**

Utilising the Person-Based Approach (Yardley et al. 2015), findings will be combined with theory to develop a brief MBI to improve well-being. This new MBI will be of benefit to multiple settings including primary care, public health, and higher education.

## Ben Bowers

The anticipatory prescribing of injectable medications (including strong opioids) to provide symptom relief for patients at the end of their lives in the community is established practice in the UK and several other countries. But there are alarmingly large gaps in the evidence base supporting this NICE recommended practice. My PhD research helps address these gaps.

My recent systematic review revealed that doctors and nurses believe anticipatory prescribing provides reassurance, effective symptom control, and helps to prevent crisis hospital admissions. However, there is inadequate evidence to draw conclusions about anticipatory prescribing's impact on symptom control and comfort or crisis hospital admissions. The views and experiences of patients have never been investigated. We do not know when drugs are issued, nor do we know if and when they are subsequently used. My PhD is investigating current anticipatory prescribing practice along with patient and their family views and experiences of this. My timely research will lead to improved understanding and more patient-centred end-of-life care.

## Claire Burton

PREDICTING OUTCOME IN PATIENTS WITH CARPAL TUNNEL SYNDROME RECEIVING CONSERVATIVE MANAGEMENT AS PART OF A RANDOMISED CONTROL TRIAL (INJECTION VERSUS NIGHT SPLINTS IN CARPAL TUNNEL SYNDROME)

### Background

Carpal tunnel syndrome (CTS) is a symptomatic compression neuropathy of the median nerve at the level of the wrist. Primary care treatments of mild to moderate CTS include local corticosteroid injections and night splinting. The aim of this study was to investigate the predictive value of candidate prognostic factors available from a pragmatic randomised clinical trial (INSTinCTS) to predict future change in patient-reported CTS-outcome.

### Methods

Previous work including a systematic review and clinical advisory group was used to identify candidate predictors. Multiple linear regression with backward step selection of variables was used to identify the combination of factors most strongly associated with the future course of symptoms and functional limitation. The event per variable rate was considered and missing data handled using multiple imputation-chained equations.

### Results

234 patients were followed over 6 months. Missing data (predictors and outcomes) were imputed for 96 (37%) of participants. 24 candidate predictors were considered for the prediction model. The final multivariable model included the sum Boston Carpal Tunnel Questionnaire, baseline symptom severity and associated symptoms of the neck, shoulder or elbows (adjusted R<sup>2</sup> 0.31).

### Discussion

The outcome of CTS patients presenting at baseline in this trial population is difficult to predict and mainly associated with the baseline level of severity. It is likely that the trial population represented a homogenous group of patients and a large variability in improvement was unlikely given patients with severe symptoms were excluded from the trial. It remains important that patients who do not respond to initial conservative treatment measures are followed up for consideration of referral for surgery."

## **Barry Coughlan**

### **Context**

Conceptualising developmental differences in children is a complicated task, where the boundary between typical and atypical development is not always clear. This is certainly the case regarding the identification of autism spectrum disorder (ASD) and attention deficit hyperactivity disorder (ADHD). Adding to the complexity, reliable biomedical markers are yet to be established for either ASD or ADHD and it is thought that both conditions share symptomatic similarities with a class of presentations described as "attachment-related". Although diagnosis typically takes place in specialist assessment services, general practitioners (GPs) are often tasked with making the initial referral. The debate regarding the GP's role in identifying such conditions has gained prominence recently, with some services requiring information from other sources (e.g school) before accepting a referral. To date, however, few studies have explored how GPs or clinicians at formal assessment services reason about these conditions.

### **Aim**

To understand how health care professionals make decisions about the identification and conceptualisation of ASD, ADHD and attachment-related conditions in practice.

### **Methods**

We conducted semi-structured interviews with 8 GPs and 17 clinicians from various specialist assessment services around the UK. All participants were required to have at least three years post-qualification experience. Interview topics included case conceptualisation, referral pathways, and discussion of a hypothetical case study.

### **Results**

Analysis is currently underway.

### **Implications**

The data gleaned from this analysis will offer insight into the clinical reasoning around the conceptualisation of these conditions and identify important features to be collected by primary care to assist with formal assessment.

## **Laurie Davies**

THE ASSOCIATION BETWEEN POLYPHARMACY AND MORTALITY: FINDINGS FROM THE NEWCASTLE 85+ STUDY

### **Introduction**

Previous research has examined the association between polypharmacy and mortality in older people. However, little is known about this association in the very old (85+ years). This study aims to examine the association between polypharmacy and mortality, using data from the Newcastle 85+ Study.

### **Methods**

The Newcastle 85+ Study is a prospective cohort of people from North-East England, born in 1921. Gender-stratified cox proportional hazard models, adjusted for confounding factors, will examine the association between polypharmacy and mortality over a ten-year period (85 to 95 years of age). Polypharmacy will be defined categorically, continuously, and as the most common medication combinations within the Newcastle 85+ cohort. Analyses will be undertaken in R-3.5.0.

## **Results**

The association between polypharmacy and mortality in men and women, will be presented through survival curves.

## **Discussion**

Understanding the association between polypharmacy and mortality in the very old may help to identify individuals with poor prognoses and potentially, advance deprescribing in later life."

## **Rachel Dewar-Haggart**

ATTITUDES AND PREFERENCES OF PEOPLE REGARDING LONG-TERM ANTIDEPRESSANT USE FOR DEPRESSION: THE APPLAUD STUDY

### **Background**

Between 2009-2013, antidepressant prescriptions rose by 36%, while the prevalence of depression rose by only 3.9%, due to the rise in long-term use. Some patients have no indications to continue antidepressant treatment. However, many are prepared to continue indefinitely. Patient beliefs, attitudes, and behaviours towards antidepressant treatment may be important in determining use and subsequent depression management.

### **Aim**

To investigate constructs of the Theory of Planned Behaviour and other psychological models of health behaviour in predicting the intentions and behaviours of individuals with depression to continue or stop their long-term use of antidepressants. It aims to elicit patient understanding about long-term antidepressant use and long-term depression management.

### **Methods**

An embedded mixed-methods design was used. Patients over the age of 18 and on long-term antidepressant treatment for over 2 years were invited to complete a postal questionnaire concerning their beliefs about antidepressants and their intentions to stop or continue treatment. A purposive sample of these participants were invited to take part in a qualitative interview, to further explore their understanding of depression and beliefs about their antidepressant use.

### **Results**

345 patients from 22 GP Practices in Wessex and the West of England returned questionnaires. Qualitative interviews are ongoing.

### **Conclusions**

The findings will illustrate patients' attitudes and behaviours towards long-term depression management in primary care. Findings may suggest barriers and strategies in reducing inappropriate antidepressant prescribing and encourage greater self-management of the illness.

## **Jemima Dooley**

People with dementia have more comorbid conditions and are more likely to be admitted to hospital than people without dementia, meaning they are a vulnerable patient group when accessing unplanned care. Communication impairments in dementia and the involvement of professional and family carers can cause further challenges to appropriate decision making. The aim of my launching fellowship is to explore how people with dementia access urgent care.

There are 4 parts to this exploratory study:

1. A scoping review of the literature
2. A mapping study of in-hours and out-of-hours primary care records for people with a diagnosis of dementia
3. Conversation analysis of 30 telephone calls and home visits from out of hours GP services by people with dementia and their carer
4. Interviews with stakeholders.

The findings of these studies will feed into the next stage of the project: developing an intervention to help clinicians, people with dementia and the companions/professional carers in decision making in urgent care situations.

## **Johanne Dow**

THE ANNUAL DEMENTIA REVIEW: EXPLORING CURRENT PRACTICE IN PRIMARY CARE

### **Introduction**

Dementia is a global public health challenge, the significant consequences of which are recognised in numerous global and national health policies. Despite approaches to improve the implementation of evidence-based dementia care in health and social care, there is consistent evidence that people with dementia and their family carers continue to lack access to care which meets their needs. This study aims to explore the "evidence-practice gap" with regards to the annual dementia review in primary care, from the perspectives of national and local experts, primary healthcare professionals, and people with dementia and their carers.

### **Methods/design**

Qualitative study using semi-structured interviews. In the first stage, national and regional experts in dementia policy and healthcare will be interviewed to explore what "should" be happening in an annual dementia review in primary care. In the second stage, interviews with primary healthcare team members will explore how annual dementia reviews are delivered in a sample of practices in North East England. Interviews with people with dementia and their carers at participating practices will then be used to explore how reviews are experienced by service users. Thematic analysis will be used to analyse data.

### **Discussion**

Examples of current practice with regards to the annual dementia review will be analysed, and the barriers, facilitators, personal and structural resources involved in successful delivery of this review will be explored. Findings of this study will be used to develop recommendations on how evidence-based dementia care can be delivered through the annual dementia review.

## **Kate Ellis**

### **Introduction**

Physical activity (PA) during the postnatal period is beneficial for physical and mental health, yet its prevalence is low in this population. Buddy Up is a PA intervention that pairs two new mothers as buddies who attend three PA counselling sessions (PACS) based on motivational interviewing principles, supplemented by a booklet. This study aims to assess the feasibility and acceptability of Buddy Up.

### **Methods**

Participants were matched with a buddy by nominating an existing friend or by researchers. We calculated participant adherence rates to assess feasibility and post-intervention questionnaires and telephone interviews to assess acceptability.

### **Results**

44 participants (existing friends (n=22); new match (n=22)) were recruited and 21 eligible participants remained unmatched. 59/66 (89.4%) PACs were delivered (non-delivery; participant withdrawal (n=5); rescheduling difficulties (n=2)). Of these, 40/59 (67.8%) PACs were delivered as arranged and 19/59 (32.2%) were rearranged (illness (n=8); other commitments (n=10); other (n=1)). Participants participated in PA with their buddy on 0.97 days (SD=1.81) in the past week and provided support by sending encouraging messages (81.8%), sharing PA ideas/information (69.7%) and doing PA together (57.5%). Early findings from the post-intervention interviews suggest good acceptability of the PACs and supplementary booklet, minimal usage of the booklet and stark differences in acceptability of the buddy element among participants.

### **Discussion**

A buddy-based face-to-face intervention with postnatal women is feasible, but requires a flexible approach due to the high number of rescheduled sessions. Further analysis of the post-intervention interviews will examine the differences in acceptability of the buddy element.

## **Buddhika Fernando**

### **COSTS OF MEDICALLY UNEXPLAINED PHYSICAL SYMPTOMS IN PRIMARY CARE IN ENGLAND**

#### **Introduction**

Evidence for physical disease cannot be found in 19% - 49% of patients presenting in primary care. Such Medically Unexplained Physical Symptoms (MUPS) are a significant burden to the NHS due to increased resource utilization and high costs. However, there is limited data and several gaps in the assessment of actual costs of MUPS in England: the oft-cited Birmingham study (2010) applies Dutch prevalence data to calculate costs for England and furthermore, in most research, costs are calculated under trial conditions. We aim to obtain a comprehensive understanding of the costs of MUPS in Primary Care in England.

#### **Methods**

In a two-pronged approach, we will:

- (1) Collate all MUS cost estimate details for England through a systematic literature review - search of five main databases enhanced by reference chaining and key author searches

(2) Conduct a retrospective, longitudinal cohort study using electronic medical records (CiPCA data base of c.90,000 patients):

- MUPS patients identified by GPs or based on three key criteria
  - age (18-50 years), GP visit frequency, no diagnosed organic disease
- Identified patients tracked over 5 years re. visits, referrals, prescriptions within Primary Care
- The costs per MUPS patient per year estimated using standardised NHS data costing to arrive at a total cost estimate of MUPS in Primary care in England

### **Discussion**

This will be the first study to identify MUPS patients from a large, consulting population, track them over a five-year period and estimate costs of MUPS in Primary Care in England under non-trial conditions."

## **Ben Fletcher**

### **Background**

With a variety of potentially effective hypertension management options, it is important to determine how patients value different models of care, and the relative importance of factors in their decision making process.

### **Aim**

To explore patient preferences for the management of hypertension in the UK

### **Design and setting**

Online survey of UK hypertensive patients including an unlabelled discrete choice experiment (DCE).

### **Method**

We developed a DCE to assess patient preferences for the management of hypertension based on four attributes: model of care, frequency of blood pressure (BP) measurement, reduction in 5 year cardiovascular risk, and costs to the NHS. We used a mixed logit model to estimate preferences, modelled willingness-to-pay, and conducted a scenario analysis to evaluate the impact of changes in attribute levels on the uptake of different models of care.

### **Results**

One hundred and sixty seven participants completed the DCE (age 61.4, 45% female, 82% more than five years since diagnosis). All four attributes were significant in choice ( $p < 0.05$ ). Reduction in 5 year cardiovascular risk was the main driver of patient preference as evidenced in the scenario and willingness to pay analyses. GP management was significantly preferred over self-management.

Patients preferred scenarios with more frequent BP measurement, and lower costs to the NHS.

### **Conclusion**

Participants had similar preferences for GP management, pharmacist management and telehealth, but a negative preference for self-management. When introducing new models of care for hypertension to patients, discussion of the potential benefits in terms of risk reduction should be prioritised to maximise uptake.



## **Artaza Gilani**

### **IT'S BAD FOR YOUR HEART**

500 to 1000 mls of blood quickly pools beneath the diaphragm when we go from sitting, or lying, to standing. This places significant stress on the cardiovascular and autonomic nervous systems. Failure of normal compensatory mechanisms that ordinarily adjust to this pooling of blood results in orthostatic hypotension (OH): a pre-defined drop in blood pressure that occurs on standing. While it has traditionally been associated with falls, fractures, light-headedness and breathlessness, the average community-dwelling adult with OH may be largely asymptomatic. This is concerning, given that OH has a prevalence of almost 1 in 5 in older adults and that its presence has been shown to increase the risk of cardiovascular disease and all-cause mortality. The mechanisms responsible for these associations are uncertain, as are the strength of these associations in older adults, who are more likely to have OH. In this study, we analyse data from The British Regional Heart Study to describe the baseline and biochemical associations of OH. We demonstrate that there is an association between markers of vascular risk and OH in older adults. This suggests a biological basis for the observational data that has previously associated OH with adverse cardiac events. In the future it may help clarify whether OH is an independent risk factor for cardiovascular disease and raises discussions about whether it can predict cardiovascular risk better than other traditional cardiovascular risk factors, which are currently ubiquitously used in cardiovascular risk modelling."

## **Ashley Hammond**

### **Introduction**

Respiratory tract infections (RTIs) are very common in primary care, accounting for around 40% of all general practice consultations. On average, adults will have between two and five RTIs annually, usually the common cold or upper respiratory infections. This systematic review will examine our current understanding of risk factors for acquisition of RTIs in the community, and interventions to prevent RTIs.

### **Methods**

We systematically searched for studies published between 1946 and 2019 investigating community-acquired respiratory tract infections. We kept our search strategy broad to ensure we included studies investigating risk factors and potential preventative interventions. All eligible studies were conducted in an Organisation for Economic Co-operation and Development (OECD) member country due to considerable variation in risk of acquiring RTIs in non-OECD countries which would make it difficult to meaningfully compare our findings. Two reviewers screened titles and abstracts. Full text papers for eligible studies were obtained and data extracted independently by two reviewers. Where appropriate, pooled odds ratios were calculated using a random effects meta-analysis.

### **Results**

Thirty-eight studies were included in the review, 25 investigating risk factors for RTI acquisition and 13 intervention studies. Analysis is currently ongoing, results will be presented in full at the event.

### **Discussion**

It is important to understand how we can prevent RTIs, as this could reduce the burden of RTIs in the community as well as demand on NHS primary health care services and potentially unnecessary antibiotic prescriptions.

## Doug Hardman

### ENACTING EFFICACY IN GENERAL PRACTICE

Modern general practice is complex. Issues such as multimorbidity, polypharmacy and chronic illness management can make applying myriad single condition evidence-based guidelines increasingly difficult. This is compounded because the problems presented in general practice often require clinical and social judgements, and have clinical and social solutions. In response to these issues, generalist clinicians are now expected to practise 'person-centred care': enabling and empowering patients by combining the technical rationality of medical science with individual values, needs and preferences. To explore this difficult undertaking I conducted an ethnography of a general practice surgery in England, including participant observation, interviews, and focus groups with patients, clinicians, and support staff over the course of a year. Clinicians in my study faced considerable constraints in practising person-centred care, broadly conceived as the limits of biomedicine and the structural constraints of general practice. However, they mitigated these by getting into good habits, which I conceive in two categories: using expert judgement and taking patients seriously. I further propose that clinicians did not merely will themselves towards these good habits, but developed and adapted them by intuitively adopting a second-order 'meta' habit of enaction – treating each consultation as collaboratively co-created anew. In so doing, clinicians engendered authenticity, flexibility, and resilience in clinical practice. I suggest that conceiving of consultations as enacted may help achieve person-centred care in general practice."

## Charles Hay

Axial spondyloarthritis (axSpA) has a worldwide prevalence of around 0.9%. It can lead to the destruction of bone in the sacroiliac joint and spine and the formation of bony spurs and fusion along the spine.

The delay between symptom onset and diagnosis of axSpA can be between eight and twelve years, during which time the disease progresses, increasing the likelihood of life-altering disability, which can in turn lead to unemployment and depression.

This PhD will be undertaken in three phases.

**Phase 1:** A systematic review will synthesise the current literature regarding diagnostic delay in axSpA. There will be no geographic or temporal limitations to the search,

**Phase 2:** Patients with axSpA and healthcare practitioners involved in the management of axSpA will be invited to focus groups and interviews respectively. They will be asked for their opinions and experiences regarding facilitators of and barriers to diagnosis for axSpA. Thematic analysis of the transcripts of these focus groups and interviews will be used to allow description of significant or recurrent themes.

**Phase 3:** The Consultations in Primary Care Archive (CiPCA) will be used to show the consultation patterns, symptoms and comorbidities of patients in the West Midlands leading up to their diagnosis for axSpA.

This research aims to explore and illuminate the current state of diagnostic delay in axSpA. Additionally, it will provide new evidence using which practitioners can aim to reduce diagnosis time for patients, improving their prognosis and quality of life.

## Edward Holmes

Antimicrobial Resistance (AMR) is a global concern for public health. The World Health Organisation predicts AMR to be a major cause of death over coming decades. Concerted, strategic efforts are needed to respond to this emergent catastrophe. In the United Kingdom, the National Institute for Health and Care Excellence has underscored the importance of optimising current prescribing practice. The initiative of "Delayed Prescribing" (DP) is one contributing component of antimicrobial stewardship. Theoretically, DPs are offered

in moments of diagnostic uncertainty. These scripts are not to be taken immediately but conditionally; for example, if patients deteriorate and/or symptoms worsen. Various socio-economic and physiological benefits of DP have been outlined in contemporary research. However, the clarity with which DP has been articulated programmatically has not translated procedurally. Healthcare professionals, for example, have reported challenges in realising the promise and prospective affordances of the initiative. Further research is needed, therefore, into how DPs are dispensed in situ. In this talk, I will introduce how the method of Conversation Analysis (CA) can be harnessed to accomplish this objective, and thereby to overcome the present hiatus that obtains between policy and practice.

## **Samantha Hornsey**

MANAGEMENT OF PAEDIATRIC SLEEP PROBLEMS IN PRIMARY CARE: A SYSTEMATIC REVIEW.

### **Introduction**

Sufficient sleep is important for healthy child development. Behavioural Insomnia (BI) is common and can be treated with behavioural and sleep hygiene interventions. Primary care offers opportunities to identify and address sleep problems but a US review (Honaker and Meltzer 2016) suggested that professionals lack training and sleep is rarely discussed. Our review further explores primary care professionals' knowledge of BI, perceptions of their role and current practice.

### **Methods**

Six databases were searched (MEDLINE, EMBASE, PsycINFO, CINAHL, Cochrane Library CENTRAL, Web of Science), using terms for 'sleep', 'child/paediatric', 'primary health care', 'general practitioner' and 'health visitor'. Selection criteria included studies of primary care practitioners (PCPs) seeing parents or children presenting with paediatric sleep problems. The focus is PCPs attitudes, knowledge, understanding and practice regarding paediatric sleep management in primary care. SH will lead paper screening and data extraction. A second reviewer will screen 10% of initial titles and full texts and check data extraction. The mixed methods appraisal tool will be used for quality appraisal. A mixed-methods synthesis will include a thematic synthesis of qualitative papers and a narrative synthesis of quantitative papers.

### **Findings**

Database searches resulted in 7578 results, de-duplicated to approximately 5500. Titles and abstracts are currently being screened for eligibility. Results will be presented at the conference.

### **Discussion**

A greater understanding of primary care professionals' knowledge of BI, perceptions of their role and current practice will identify key areas to inform research to improve the management of paediatric sleep problems in primary care.

## **Xiao-Yang (Mio) Hu**

This online survey is to explore treatment-seeking behaviour of cough in Chinese population. In particular, we aim to identify the patterns of participants' use of antibiotics, modern medicine, Chinese herbal medicine (CHM), and other treatments for cough; to identify which commonly used treatments for cough are associated with the best outcomes in the Chinese population; and to examine whether antibiotic use correlates with the use of different patented CHM and how.

Retrospective clinical information was collected on patients who: Either were experiencing or had experienced cough in the last 6 weeks (either acute or chronic). Those who had chronic underlying lung diseases such as COPD or asthma were included; Have taken oral medicines (modern medicine or CHM, either self-care or given by health care professionals), or non-medical approaches to help with the

cough. Potential participants were recruited through WeChat with a QR code to the online survey will be developed using Wen Juan Xing survey.

The survey contains key questions on participants' sociodemographics and basic lifestyle information on smoking; and key questions such as:

- What treatment(s) did you/ the patient use for the last episode of cough?
- What was the progress (cured/better, same/worse)?
- How much did each treatment help with the cough symptom?
- Did you / the patient take antibiotics during the course of cough?
- Have you / the patient experienced any adverse events during your course of treatment?

Preliminary findings on data collected from 26995 participants will be presented and discussed.

## **Athena Ip**

YOUNG PEOPLE'S EXPERIENCES OF ACNE AND ATTITUDES TOWARDS ACNE TREATMENTS:  
SECONDARY ANALYSIS OF QUALITATIVE INTERVIEW DATA.

### **Problem**

Acne vulgaris is a common skin condition with potential for substantial impact on quality of life. First line treatments are topical preparations but non-adherence is common. A substantial proportion of patients progress to taking long courses of oral antibiotics, associated with antibiotic resistance. This study aimed to explore peoples' perceptions of acne and its treatments.

### **Approach**

Young people with acne were interviewed by the University of Oxford for a Healthtalk.org qualitative study on people's experiences of skin conditions. Participants were recruited via: social media; patient and public platforms; primary care; secondary care; colleges and schools. Interviews were video recorded and transcribed verbatim. We carried out a secondary inductive thematic analysis focusing on participants' attitudes towards treatments.

### **Findings**

In total, 25 transcripts were included. The sample consisted of 18 women and 7 men aged 13 to 24 years. Findings highlighted how people were confused between cosmetic and pharmaceutical treatments for acne, assuming they had tried all topicals; people expected their topical treatment to work instantly, often perceiving them as ineffective when this did not happen; uncertainty about how to use topical treatments and manage side effects also led to early abandonment. Participants also had concerns about side effects and necessity of oral antibiotics.

### **Conclusion**

Unrealistic expectations about treatment appeared to be related to non-adherence. Better understanding about different topicals, how to use them and how to manage side effects could improve self-management of acne. This highlights the need for signposting to accessible evidence-based information to support self-management.

## Alexandra Jäger

My overarching research question is: "what works for whom in what circumstances in relation to the usage of data within NHS primary care commissioning?"

The aim of my research is to complete a realist synthesis and evaluation to explore the contexts that influence the usage of data within NHS primary care commissioning. Sub-questions include:

- What are the underlying mechanisms to using data in primary care commissioning, in what contexts do they occur and how do they vary?
- Which contexts trigger "successful" mechanisms and lead to "successful" outcomes, and how do these differ from "unsuccessful" ones?

The purpose is to understand the process of integrating data into the primary care commissioning cycle, rather than how to achieve a specific outcome with integrating data. This study considers the defining feature of data to be quantitative, statistical information.

## Emily Johnston

### Background

E-cigarettes are an increasingly popular alternative to smoking helping to prevent relapse in those trying to quit, and with potential for harm reduction as they are likely to be safer than smoking. Many women relapse to smoking in the postpartum period having stopped smoking during pregnancy, and this can affect their decisions about breastfeeding, but little is known about women's opinions on using e-cigarettes during this period.

### Objectives

To explore online forum users' current attitudes, motivators, and barriers to using e-cigarettes postpartum, particularly as a breastfeeding mother.

### Methods

Data were collected via publically accessible (identified by Google search) online forum discussions, and a priori codes identified. All transcripts were entered into NVivo for analysis, a template approach to thematic analysis was used to code all transcripts from which themes were derived.

### Results

Four themes were identified: Use, Perceived risk, Social Support and Evidence, and a number of subthemes were identified within these broader themes. Women were using e-cigarettes to prevent postpartum relapse to smoking, however opinions on the safety of e-cigarettes was conflicting. Women were concerned about possible transfer of harmful products from e-cigarettes via breastmilk and second hand exposure. Women were actively seeking and sharing information on e-cigarettes from a variety of sources, and although some women were supportive of e-cigarette use, there were many instances of harsh judgement for mothers who use them.

### Conclusions

E-cigarettes have potential to reduce relapse to smoking in the postpartum period, and potentially improve breastfeeding rates, if breastfeeding mothers have access to relevant and reliable information. Health care providers should consider discussing e-cigarettes with mothers at risk of relapse to smoking in the postpartum period.

## **Jo Jordan**

### **Background**

Patients, clinicians and policymakers need high quality information regarding potential future outcomes from systematic reviews (SRs) on which to base healthcare decisions. Search strategies for prognosis SRs are challenging due to poor reporting and inconsistent indexing in electronic databases. We have conducted a SR of search filters for retrieving prognosis research with published performance metrics showed high sensitivity, but poor precision. Consequently, researchers conducting prognosis SRs spend many hours screening titles and abstracts, which has an impact on amount of funding required.

### **Objective**

First objective of my thesis is to evaluate performance of most promising search filters for identifying prognosis studies in Medline and EMBASE (OVID) in a real SR.

### **Methods**

Search filters from the previous SR that report high sensitivity are combined with subject specific terms in a systematic review of predictors of unplanned hospital admissions in frail older people. Practical value of each filter is compared.

### **Results**

Relative recall for each search filter when combined with the subject terms is presented as proportion of the relevant studies retrieved. Total number of references that need to be screened and Number Needed to Read (NNR) are also reported for each search filter combined with subject terms for this review. These performance metrics are compared to those in previously published studies.

### **Conclusions**

Recommendations for the most efficient search filters will be reported at the training day. This work forms first stage in a PhD that aims to explore if more efficient search filters to identify prognosis studies can be developed.

## **Yumna Masood**

### **Background**

Minority ethnic groups have relatively higher rates of prevalence of mental disorders, with some groups disproportionately over represented. Disparities relate to diagnosis, care pathways and treatment outcomes. However, they are underrepresented in clinical research. This reduces the generalisability of research findings across multicultural populations and hinders the development of accessible services, thereby perpetuating health inequalities.

### **Aim**

Our research project aims to evaluate whether SHAMIL recruitment training programme enhances South Asian participant's knowledge, willingness and attitudes towards participation in mental health research.

### **Methods**

We have developed a culturally sensitive recruitment training called SHAMIL which is aimed at South Asian communities to educate them about the importance of taking part in mental health research, enhance their knowledge about what is mental health research and guide them about the processes and ways they can be involved in the research. A half-day training programme for South Asian communities is developed and was conducted.

## **Analysis**

Assessment of participant's knowledge, understanding and attitudes towards participation in mental health research will be undertaken before training at baseline and at the completion of the training. The analysis will be based on repeated measures t-test and this will be used to measure the difference in the scores at pre and post-training level. Regression analysis will inform to what extent predictor variables like age, gender and educational level will contribute to the difference in the pre and post-training scores.

## **Discussion**

We hope that this research will help us further improve SHAMIL recruitment training and will help us to decide the best way to support South Asian people involvement in mental health research.

## **Chris Morton**

### **Background**

Polymyalgia rheumatica (PMR) is a common inflammatory disease in older people, for which the established treatment is glucocorticoids. Long-term glucocorticoid use increases the risk of side effects, motivating research into predicting treatment duration. Early trajectories of PMR symptoms are potentially important predictors that have not been incorporated in previous research. This study will jointly model longitudinally measured PMR symptoms with time to treatment discontinuation, to develop a dynamic prediction model.

### **Methods**

An inception cohort of 652 patients diagnosed with PMR in UK primary care were followed up for two years via repeated questionnaire mailings. Baseline predictors of treatment duration were analysed using an interval-censored accelerated failure time model. Longitudinal pain, stiffness and disability ratings were the outcomes in separate linear mixed models, with piecewise linear fixed and random effects of time. Multiple imputation was used to account for missing predictor data.

### **Results**

In multivariable survival analysis, male gender (acceleration factor (AF) 0.78, 95% CI 0.63-0.95) and the ability to raise the hands above the head (AF 0.78, 95% CI 0.62-0.99) were associated with shorter treatment duration. For the longitudinal model, females and younger participants reported more severe pain and stiffness at all follow-up times. Participants with worse baseline fatigue and lower socioeconomic status reported more severe pain, stiffness and disability throughout follow-up.

### **Conclusions**

Having considered longitudinal and survival models separately, the next stage of this research is to combine symptom trajectories in a multivariate framework and to model these jointly with treatment duration.

## **Ananya Namdeo**

GP's routinely rely on evidence sources such as guidelines and systematic reviews to inform their decision-making and guide the treatment plans of patients in order to provide timely, evidence based care. In some clinical areas however, guidelines from influential sources such as NICE may be unavailable or insufficient, leaving clinicians to decide the relevance and quality of many different competing types of evidence that may be available to them. This is especially true of mixed method reviews which have only recently become popularised.

Currently there are a number of methods to underpin mixed methods reviews, with some uncertainty as to which are most appropriate or robust. Guidelines and systematic reviews often utilise a range of methods although some may be constrained by stringent frameworks dictated by their respective commissioning bodies. In order to fill this knowledge gap, a series of reviews will be undertaken. The first will explore how, and under which circumstances, mixed method synthesis methodologies are used in Primary Care systematic review literature, as compared to the wider healthcare review literature. Further to this we will explore their use in primary care guidelines as compared other areas of healthcare.

Finally any differences between the methodologies used in reviews as opposed to guidelines will be analysed. Based on this work two case studies will be identified and used to explore and identify an optimal synthesis method that will be specific and tailored for use in primary care, enabling clinicians to make fully informed decisions even in areas of complexity.

## **Magdalena Nowakowska**

An increasing trend for opioid prescribing has been observed around the world. Previous studies found significant spatial variations in opioids prescribing patterns when comparing Clinical Commissioning Groups (CCGs) within England. There is a lack of research exploring such variations at a lower geographical level. This study will explore the spatial and temporal variations in prescribing pattern for three classes of drugs used for management of chronic pain: opioids, benzodiazepines and gabapentinoids. Furthermore, it will explore correlations between prescribing patterns and regional characteristics such as socioeconomic deprivation.

Monthly data for prescriptions for opioids, benzodiazepines and gabapentinoids at a GP level has been extracted from the NHS Digital prescribing data for years 2014-2019. The volume of medications prescribed, measured using the defined daily doses (DDDs) was linked to lower layer supra output area (LOSA) - a spatial unit representing approximately 1500 inhabitants. Spatial autocorrelation will be measured for each month using Moran's I and clusters will be identified using local identifiers of spatial association (LISA). Correlation between volume of prescribing and characteristics of the region, including socioeconomic deprivation measured using the Index of Multiple Deprivation (IMD), will be calculated.

Our preliminary results show significant spatial autocorrelation between LOSAs within CCGs and nationwide. The results of this study can provide important information on the size, shape and significance of spatial dependencies which can be used to guide further research and for hypothesis generation. This can be used to identify regions in greater need of interventions design to optimise prescribing of pain management medications.

## **Mohana Ratnapalan**

A QUALITATIVE STUDY EXPLORING HOW PATIENT EXPECTATIONS ARE DISCUSSED IN MSK PRIMARY CARE CONSULTATION

Musculoskeletal (MSK) problems are the largest cause of years lived with disability in the UK. Given the challenges and impact of MSK conditions on daily living there is a role for discussions around expectations within the consultation. We know that patients want to have discussions around disease burden and treatment goals and that these discussions can help reduce disability burden. However, we know very little empirically about how GPs and patients manage the discussions around expectations of MSK problems. We will undertake secondary analysis of a dataset of UK based GP-patient consultation video recordings collected as part of The Eliciting Patients Concerns study (EPaC). Initial screening of the 185 EPaC recordings for MSK relevant cases identified 70 consultations in which MSK disorders/symptoms were discussed. Using thematic analysis, we are exploring whether and how patient expectations are discussed. A qualitative analysis of communication approaches used by GPs and patients



will provide a systematic look inside the UK consulting room to see how these tasks are accomplished with the aim of identifying how communication practices can be optimised.

## Georgia Richards

### Objective

The risk of harm from opioids increases substantially at high doses and this prescribing has increased in primary care. We will systematically synthesize the evidence to explore factors associated with the prescribing of opioids at high doses in primary care.

### Methods

MEDLINE, Embase and Web of Science, reference lists of eligible study, forward citation searches and conference proceedings were searched from inception to April 5, 2019. We included observational studies that explored any factor(s) in people prescribed opioids, stratified by oral morphine equivalent (OME) in mg per day with a group of participants receiving high doses (defined as  $\geq 90$  OME mg/day), in primary care settings of high-income countries, independently reviewed by two authors. Meta-analyses were performed on factors that were reported by two or more studies using a random-effects model.

### Results

Seven studies including 4,059,299 participants on opioids of which 3.8% (N=152,458) were receiving high dose formulations were included. High dose opioids were associated with an increase in coprescribed benzodiazepines, younger age, more visits to the ER, increased depression, caucasian ethnicity, male gender and more long-acting opioids. Employment, marital status, smoking and anxiety were not associated with the prescribing of high dose opioids.

### Conclusions

Identified factors can help guide the management of patients on high doses of opioids in primary care. More robust patient-level prescribing data is required to fully understand the relationship and onset of these factors to develop interventions to reduce the inappropriate prescribing of high dose opioids.

## Fabian Sailer

### Introduction

Sexually transmitted infections (STIs) are often asymptomatic, but can have serious long-term consequences, which may result in a significant burden. Many disease models exist which examine the cost-effectiveness of screening and treatment interventions for single STIs.

### Problem

Co-infection with more than one STI is possible. Considering this within disease models may have an impact on the results of the model. For example, an intervention which increases condom use, may be too expensive to be cost-effective when looking at a single STI. But the same intervention, without additional costs, will also decrease the incidence of other STIs and therefore have a greater impact in a multi STI model and may be cost-effective.

### Methods

I developed an easy-to-use multi-STI modelling software for a United Kingdom setting. Future users, specifically decision makers in health care on a local level, were included in the development process.

### Results

The software simultaneously simulates chlamydia, gonorrhoea, syphilis and HIV infections with an individual-based discrete event simulation approach. Graphical user interfaces have been developed to

facilitate the usage of the software. Future users of the software can adapt the input to fit the model to local circumstances and to compare intervention options, both existing and hypothetical.

Internal and external validation methods have been used to successfully validate the software.

### **Discussion**

The multi-STI modelling software is specifically designed to support decision makers on a local level. An agile development process, which included future users of the tool, ensured that the modelling software is fit for purpose.

## **Kym Snell**

Combining individual participant data (IPD) from multiple studies for the purpose of developing and validating prediction models is particularly useful for conditions with rare outcomes such as in the primary care setting. Benefits include having larger sample sizes with more outcomes than would have been possible with a single study, cost savings by reusing existing data, and the ability to evaluate a prediction model's predictive performance across different centres, regions or countries. However, there are several challenges that come with combining IPD from different sources. These include assessing the quality of the data, differences in predictor and outcome definitions across studies, heterogeneity in the populations included across studies, and handling missing data including when predictors of interest were not recorded in all of the studies.

I will illustrate key challenges faced when combining IPD from different sources, and identify potential solutions and areas for further work, particularly around missing data. A detailed example will involve IPD from 78 studies for the purpose of developing and validating a prediction model for a woman's risk of pre-eclampsia during pregnancy. A key finding is that, although novel statistical methods can be used to impute for missing predictors in a study by using information from the other studies, this can still be problematic. Core outcome sets are already being developed (COMET), however core predictor sets are also needed. Primary care researchers setting up new studies should think about the future use and reuse of their IPD, and ensure a core set of (known) predictors are collected as a minimum.

## **Gemma Spiers**

### **Background**

Poor access to social care for older people is often linked to increased demand for healthcare. This research aimed to explore this relationship. A notable lack of evidence about equitable access to social care and healthcare use outcomes informed a particular focus on the role of older adults' financial resources in this relationship.

### **Methods**

Two systematic reviews were conducted to examine evidence about the relationship between access to social care and healthcare utilisation by older people. To explore the role of older people's financial resources in this relationship, an analysis of cohort data (Newcastle 85+) was undertaken. Finally, a critical scoping review of measures of socioeconomic status in older populations supplemented this work.

### **Findings**

Greater access to social care was associated with lower healthcare utilisation by older adults. There was also weak evidence that older people's financial resources may, to a small degree, moderate this relationship. The challenges of measuring socioeconomic status in older populations may partly account for the weak evidence regarding the role of older people's financial resources.

## **Conclusions**

The relationship between access to social care and healthcare utilisation by older people may reflect both the mechanisms of care and the conditions of access imposed on each sector. These findings have informed the development and expansion of an existing theoretical framework of access to care. A number of factors may account for the weak evidence regarding the role of older people's financial resources in this relationship. Avenues for further research are discussed.

## **Daniel Stow**

What is the relationship between social deprivation, frailty and end of life care? Evidence from primary care electronic health records

### **Background**

GPs are tasked with identifying people approaching end of life (EoL) in order to organise timely, appropriate care. Frailty and deprivation are both associated with a decreased likelihood of receiving high quality EoL care.

### **Aim**

To investigate the relationship between frailty, deprivation and identification of EoL.

### **Method**

We used the electronic frailty index (eFI), generated automatically in health records at monthly intervals for a one-year period in 13,149 people age >75 who died (cases), matched (age, sex, practice) to 13,149 people without a record of death over the same period (controls). We used Index of Multiple Deprivation (IMD) quintiles and latent growth curve models to investigate the impact of deprivation on frailty trajectories. In ongoing work, we are examining the relationship between IMD and EoL coding.

### **Results**

Greater deprivation was associated with higher baseline frailty, but not with rate of change of frailty over one year. At baseline, we observed greater deprivation related differences in frailty amongst controls compared to cases, suggesting eFI scores converge as people near end-of-life. Amongst cases 10,767 (82%) had at least one Read code indicating that their GP recognised they were near EoL/discussed preferences for care, and 1,659(12%) were coded as being on a palliative register. The first recording of any EoL code was at a median 7 months prior to death, entry onto the palliative register was at a median of 4 months prior to death.

### **Discussion**

We discuss our results in light of end-of-life care policy and planning.

## **Laura Swaites**

### **Background**

It can take on average 17 years for research findings to be adopted into clinical practice. A previous comprehensive review of the evidence to practice gap in primary care and methods for closing this gap has been conducted by a SPCR funded collaboration. This has identified key areas where the causes and strategies for closing the evidence to practice gap need to be addressed.

Using this review, I have undertaken a Ph.D. which has investigated implementation from an osteoarthritis research project from a knowledge mobilisation perspective. Through this work I have identified several key factors that facilitated implementation in primary care and have developed an implementation

toolkit to optimise the transition between research and practice. My Ph.D. was grounded in knowledge mobilisation theory and had strong stakeholder engagement (primary care and patients and the public). This work is now being tested within a substantive implementation project for the NIHR Themed Review Moving Forward.

### **Aims**

a) investigate the rollout of Moving Forward research evidence for musculoskeletal therapies within one large NHS Trust, and b) to evaluate the use of an implementation toolkit in a real-world implementation project.

### **Methods**

Single setting case study comprising individual interviews, observation of planning meetings and an evaluation of the implementation toolkit

### **Potential patient benefit**

- Optimising roll out of Moving Forward in other areas
- Better quality care for musculoskeletal health
- Co-created patient and public facing materials and innovations
- Understanding the role of PPIE in knowledge mobilisation

## **Paul Teed**

### **MEDICAL DOCUMENTATION AND ASSISTED DYING: "GOING UNDERGROUND"**

Considering the amount of attention and polarizing passion the topic of assisted dying generates very little is known about contemporary practices here in the UK. Whilst small in absolute terms, those seeking an assisted death abroad are likely to be greater in number than widely acknowledged. However, applicants are warned not to share their reasons with health professionals when seeking access to the medical documentation that is required as part of the application process. Why is this? What is happening in these encounters?

Overcoming ethical and legal challenges of researching potentially illegal acts, I carried out a qualitative study of 25 people with experiences of seeking documentation for an assisted death abroad.

The smothering of a desire to die/hasten death results primarily from an attempt to avoid the alienating experiences of refusal. On the flip side, people seek burden-lifting relationships and acts, some of which likely contravene professional guidance and possibly even criminal law.

Professional guidance can be much clearer to help mitigate this variability. Specifically, the type of documentation requested is crucial. Providing access to medical records, even if it is known they will be used for an assisted death abroad, does not contravene professional guidance/criminal law. Refusing access may in fact contravene Data Protection laws and is leading to the desire to die/desire to hasten death "going underground". However, the writing of specific reports for an assisted death contravenes professional guidance and possibly even criminal law.

## **Bethan Treadgold**

### **Introduction**

Parents and carers of children with eczema often turn to online resources for their information and peer-support needs. Little is known about which online resources families use, for what type of advice, and how parents' online experiences may influence their management of their children's eczema.

## **Methods**

We carried out an online survey study, which was developed in collaboration with PPI partners. Participants were recruited through Twitter, Facebook, online parenting forums, skin charities, and community advertising from August to December 2018. Data were analysed with descriptive statistics, and a content analysis performed on free-text data.

## **Findings**

133 parents completed the survey. Health information websites (e.g. NHS Choices) were reported as most popular to use in the early eczema stages (47%), with subsequent use transitioning to social media sites (e.g. Facebook) (43%). Facebook support groups were reported as the most commonly used online platform (61%), followed by a range of online discussion forums. Advice regarding eczema treatments was most searched for (35%). Parents more often reported that they had acted upon information they had read on social media sites and discussion forums (e.g. Mumsnet) (90%) than on health information websites (85%).

## **Discussion**

This study provides academics and clinicians in primary care with a greater insight into parents' perspectives of using online resources for advice about eczema treatments. This study has also identified three popular social media sites and online discussion forums used by parents, which will be further explored in a subsequent study of parents' exchanges online about eczema treatments.

## **Elizabeth Westhead**

PALLIATIVE CARE NEEDS OF PEOPLE WITH FRAILITY: A QUALITATIVE SYSTEMATIC REVIEW AND THEMATIC SYNTHESIS

### **Background**

The number of older people living and dying with frailty is rising, but our understanding of their end-of-life care needs is limited. This review aimed to understand these needs by identifying and synthesising qualitative material reporting the perspectives of people with frailty, their informal caregivers and health care professionals.

### **Methods**

Fourteen electronic databases were searched from inception to July 2019. Principles of thematic analysis were applied to synthesise findings of studies suitable for inclusion.

### **Findings**

Of 7404 unique articles identified, 13 were included in the synthesis. Three themes explained palliative care needs. People with frailty identified with their frail state and proximity to death to different degrees. Although most participants experienced physical symptoms, it was the emotional impact of their condition that typically had greatest impact on their experiences. People with frailty reported a desire to live in the present, and their needs were more focused on living than dying.

### **Conclusions**

Approaches to palliative care for people with frailty should be focussed on meeting needs for emotional support, and in maintaining their existing lifestyle and daily routines, as far as possible. Care planning should take into account individual understanding of frailty and its prognosis.

## Notes

## Notes

## **SCHOOL FOR PRIMARY CARE RESEARCH**

Established in 2006, the NIHR School for Primary Care Research is a partnership between nine leading academic centres for primary care research in England. The School brings together academics and practitioners from across the country to collaborate on cutting edge, topical primary care studies that have an impact both at policy level and in general practices around the country. In addition to conducting high profile research, we attract the best new researchers into our capacity programme and offer trainees support and networking opportunities through an extensive training and events programme. Our mission is to increase the evidence base for primary care practice, and to increase research capacity in primary care.

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