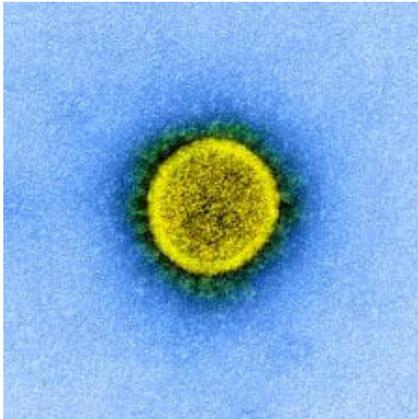


Newsletter Spring 2020



CaHRU and COVID-19

The CaHRU team have been responding to COVID-19 with a series of new studies and proposals seeking to further our understanding and improve our response to the pandemic. The first two studies in progress focus on the ambulance and Emergency Medical Services (EMS) response to pandemics and COVID-19 in particular.

The first is a one-year study led by Dr Ffion Curtis, research fellow at the Lincoln International Institute for Rural Health, which aims to conduct a systematic scoping review of the literature on interventions, outcomes and experiences of the ambulance service response to pandemics. The study team includes Despina Laparidou from CaHRU, Dr Withanage Iresha Udayangani Jayawickrama and Dr

Dedunu Weligamage Dias both international visiting fellows at CaHRU from the University of Colombo's Postgraduate Institute of Medicine, together with Marishona Ortega, prof Niro Siriwardena and Rob Spaight and Dr Emma Horncastle from East Midlands Ambulance Service NHS Trust. The team wish to better understand how ambulance services respond to pandemics, what the outcomes of such a response are and, importantly how ambulance services are experienced by patients and staff during pandemics. The study will determine what interventions (e.g. infection control, PPE) are implemented within EMS, what outcomes are reported relating to EMS interventions and what qualitative evidence there is describing the experiences of EMS staff and patients during pandemics.

The second study is the EMSC3 study, 'Identifying and explaining clusters of acute physical and mental health conditions in the East Midlands of the UK and Ontario using ambulance call condition data – Satscan analysis and evaluation of health care system effectiveness (Emergency Medical Service Call Condition Cluster Study). The multidisciplinary international team led by Prof Niro Siriwardena, CaHRU, University of Lincoln includes: Dr Harriet Moore from University of Lincoln School of Geography; Profs Frank Tanser and Mark Gussy from the Lincoln International Institute for Rural Health Care; Prof Graham Law and Dr Elise Rowan from CaHRU; Dr Gina Agarwal and her team from McMaster University, Ontario, Canada which includes Dr Melissa Pirrie, Dr Ricardo Angeles, Dr Iwona Bielska, Brent McLeod of McMaster University & Hamilton Paramedic Service, and Richard Ferron from Niagara EMS; and Prof Kamlesh Khunti of Leicester Diabetes Centre at the University of Leicester. The aim of the study is to investigate the epidemiology of 999 ambulance attendances for ambulatory care sensitive conditions in East Midlands, UK and Ontario, Canada. The team will achieve this by identifying spatial clusters of single and multiple common ambulance acute service-sensitive conditions (diabetes, asthma, mental health, COPD, angina and epilepsy), using call condition records from the East Midlands Ambulance Service NHS Trust, and equivalent services in Ontario involving state-of-the-art spatial analysis (with SatScan software). The analysis will begin with a focus on acute respiratory conditions, particularly focussing on people with underlying or multiple comorbidities (e.g. chronic heart, lung and kidney disease or diabetes) and calls for suspected COVID-19. The study is on the UK Health Research Authority list of approved COVID-19 research.

A number of other bids are in development including a further proposal on the ambulance response and another investigating post-COVID-19 rehabilitation.

By Prof Niro Siriwardena

Improving healthcare commissioning for probation: mapping the landscape

The Improving Healthcare Commissioning for Probation: Mapping the Landscape project was funded by the NIHR and examined:

- How healthcare is provided for people under probation supervision in the community
- What research tells us about good practice for improving the health of people under probation supervision, and
- What mechanisms can be used to measure and facilitate improvements in the quality of healthcare provision for this population

Data were collected using a mixed-methods approach that included a narrative systematic review with a brief online surveys of all key stakeholders in England, analysis of policy and procedure documents, and telephone interviews with key stakeholders in six areas of the country to examine practice in more detail.

Ultimately, the research team aimed to bring all of the findings together into a toolkit for commissioners and practitioners working in the healthcare in justice field.

The project has now come to a close, and key findings from the research have been summarised in the infographic below, which was produced by Dr Sirdifield in consultation with one of the project's service user representatives.

The commissioning toolkit produced from the project is freely available to download at <https://probhct.blogs.lincoln.ac.uk/>, and contains sections on the likely health needs of people under probation supervision, current service provision (including potential examples of good practice), and some preliminary suggestions around measuring and improving the health of people in contact with probation and the quality of healthcare that they receive.

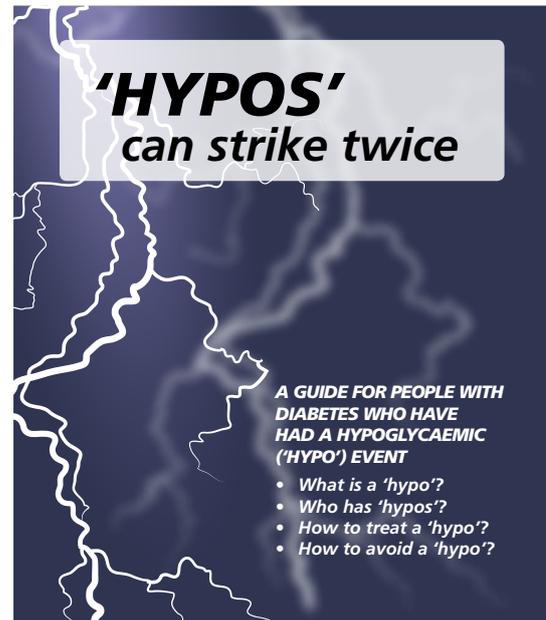
Numerous publications have been produced from this project, which are listed here: <https://communityandhealth.dev.lincoln.ac.uk/research/epic/improving-healthcare-commissioning-for-probation-mapping-the-landscape/>

This blog presents independent research funded by the National Institute for Health Research (NIHR) under its Research for Patient Benefit (RfPB) Programme (Grant Reference Number PB-PG-0815-20012). The views expressed are those of the author(s) and not necessarily those of the NIHR or the Department of Health and Social Care.

By Dr Coral Sirdifield

Improving Healthcare for People in Contact with Probation





Using ambulance data for evaluating implementation and improvement

Members of CaHRU, led by Prof Niro Siriwardena, have recently started a new programme of collaborative research with East Midlands Ambulance Service NHS Trust using ambulance data. The 3-year programme is part of the [NIHR Applied Research Collaboration East Midlands](#) under the theme of Building Community Resilience and Enabling Independence led by Prof Marion Walker.

The first study in the programme is the [Ambulance 'Hypos can Strike Twice' \(Ambu-HS2\) study](#) which is seeking to investigate the effect of implementing an ambulance clinician delivered hypoglycaemia intervention on repeat ambulance calls, attendances and transportation to hospital using a non-randomised stepped wedge and process evaluation. The study team includes members of CaHRU (Prof Niro Siriwardena, Prof Graham Law, Dr Murray Smith, Dr Elise Rowan and Ms Despina Laparidou), PPI representatives (Mrs Amanda Brewster, Mr Keith Spurr, Mrs Pauline Mountain), East Midlands Ambulance Service NHS Trust (Mrs Sally Dunmore, Rob Spaight, Dr Leon Roberts), and University of Leicester (Prof Kamlesh Khunti, June James).

The research is being carried out to understand the effect of ambulance staff delivering the “Hypos can strike twice” intervention on people with diabetes experiencing hypoglycaemia (or “hypo”, meaning low blood sugar) to help prevent further “hypos” and negative impacts on future patient health. The study addresses NHS priorities around diabetes, redesigning urgent and emergency care to improve patient care and strengthen primary and community care.

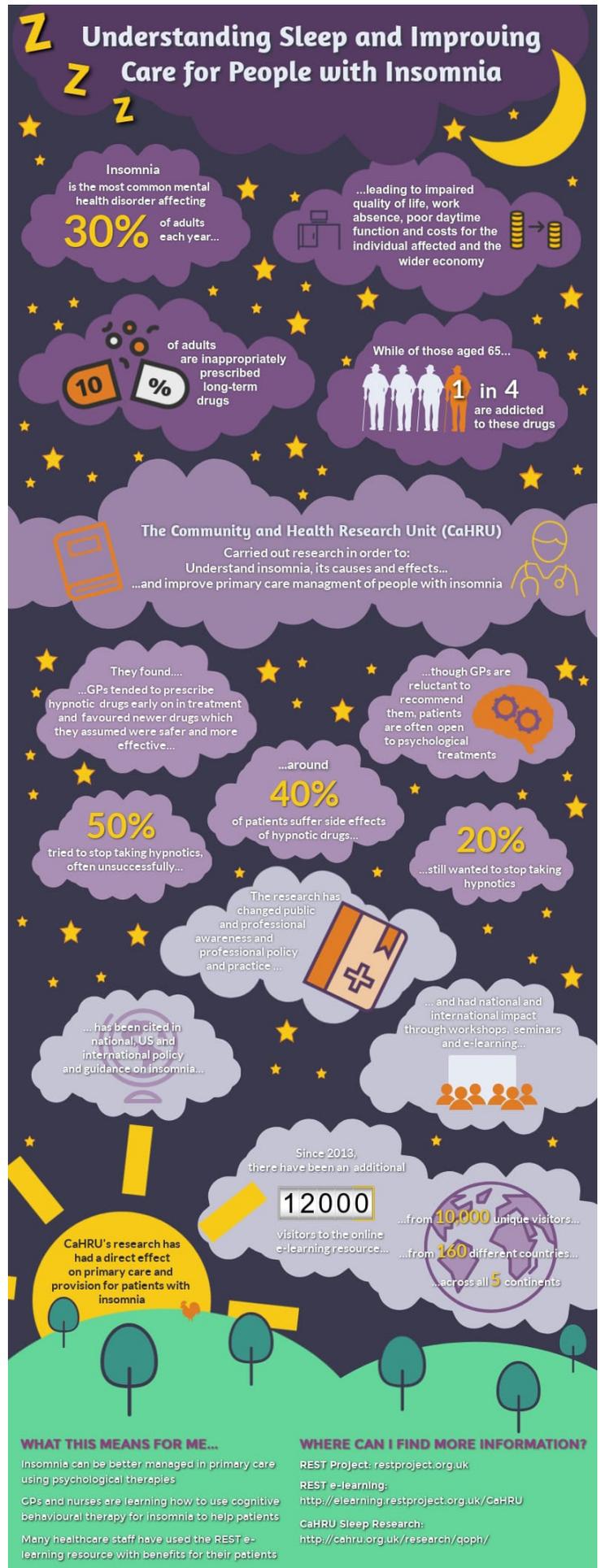
Primary care for insomnia – past, present and future

Prof Niro Siriwardena was invited and presented a seminar on CaHRU's work on management of insomnia in primary care at a recent seminar at King's College London this Spring on 29 April 2020, hosted by the Department of Population Health Sciences. The seminar took place via Teams and consisted of the usual presentation format followed by a series of questions from the audience. The event was hosted by Dr Marina Soley-Bori, Research Fellow in Health Economics, and Dr Mark Ashworth, Reader in Primary Care, at King's.

Niro described how his work on sleep began with investigating the problem of high sleeping tablet (hypnotic drug) use in primary care. This led to a series of small-scale studies exploring patients' and practitioners' use of hypnotics through cross-sectional surveys. This was followed by a major grant from the Health Foundation to explore solutions for primary care insomnia which led to work with general practice to implement psychological therapies for insomnia as part of the Resources for Effective Sleep Treatment project.

The research centre has continued work in this area including a systematic review and meta-analysis of z-drugs published in the BMJ and two qualitative reviews with metasyntheses of patients' and practitioners' perspectives on hypnotics. Over the past few years the team have been working on increasing access to psychological therapies for insomnia through the EPSRC funded ENACT study, 'Exploring social Networks to Augment Cognitive behavioural Therapy' and subsequent studies using Sleepio. Most recently, members of the team have been collaborating on one of the largest trials of psychological therapy for insomnia using primary care nurse-delivered sleep restriction in the HABIT trial of Health professional Administered Brief Insomnia Therapy.

By Prof Niro Siriwardena



Publications

Brooker, C., Sirdifield, C., and Marples, R. (2019) Mental health and probation: A systematic review of the literature, *Forensic Science International: Mind and Law*, 1 (100003) <https://doi.org/10.1016/j.fsimpl.2019.100003>

Sirdifield, C., Brooker, C., and Marples, R. (2020) Suicide and probation: A systematic review of the literature, *Forensic Science International: Mind and Law*, 1 (100012), <https://doi.org/10.1016/j.fsimpl.2020.100012>

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