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MANCHESTER CENTRE
FOR HEALTH ECONOMICS

NEWSLETTER

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WELCOME! FROM THE CENTRE LEAD

Welcome to the Autumn edition of our Newsletter!

I do hope this finds you all safe and well. We are, perhaps not surprisingly, facing a second wave of COVID-19. Myself and my colleagues in MCHE have all been dealing with continuing to work from home and coping with the subsequent 'blurring' of work and non-work life. The students have returned to The University of Manchester thanks to the tremendous efforts of the staff. Unfortunately we have just been advised to introduce a temporary halt to face-to-face teaching which will affect both staff and students alike.

Staff based in MCHE continue to be involved in COVID-19 work. In this newsletter, we highlight one example project looking at the effects of COVID-19. We also describe new projects that are starting and some nearing completion even within the continuing difficult times thanks to the efforts of all the staff and students based in MCHE.

In this edition, we have our regular student spotlight section and have chosen a selection of current projects

to highlight how we are working with our colleagues within Manchester, across the UK and globally. We congratulate Dr Georgios Gkountouras and Rob Hainsworth and welcome two new members of staff. We have now re-established our regular external seminar series using the magic of Zoom, with Professor Emma Frew doing an excellent job as our inaugural Zoom-seminar presenter. We continue to try and keep in touch as a group over Zoom every Monday and also have introduced a MCHE-film club.

Very best wishes from all of us in MCHE and we all hope that you stay safe and well.

Katherine



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CASPAR: CHARACTERISING PSORIASIS AND CO-MORBIDITIES

Dr Federica Ciamponi, Dr Georgios Gkountouras, Dr Thomas Allen, Dr Sean Gavan, Dr Alex Thompson and Professor Katherine Payne from MCHE, in collaboration with Professor Darren Ashcroft from the School of Health Sciences and Dr Claire Reid from the Dermatology Centre at Salford Royal Hospital, are working on a research project entitled ChAracteriSing Psoriasis And co-moRbidities (CASPAR) - funded by the Psoriasis Research Fund from the University of Manchester.

An evolving body of literature has shown that patients suffering from psoriasis, a common chronic inflammatory skin condition, often have other comorbidities that can influence treatment decisions. Currently, psoriasis is recognised as a systemic inflammatory disorder. Lifestyle and patient behaviour such as alcohol consumption, smoking status and obesity are known factors that can trigger psoriasis or exacerbate the risk of experiencing a flare-up.

However, little research has attempted to estimate the current burden of managing psoriasis and associated comorbidities. CASPAR aims to identify, and quantify the use of healthcare resources and associated costs to the NHS for treating psoriasis patients with selected co-morbidities. The MCHE team is performing a descriptive statistical analysis using an observational retrospective cohort study based on linked datasets from: a large primary care database (Clinical practice research datalink (CPRD)); a secondary care database (Hospital Episode Statistics (HES)); mortality data from the Office of National Statistics (ONS) and patient-level Index of multiple deprivation (IMD) data. The results of this analysis will quantify resource utilisation and related costs of treating psoriasis patients with co-morbidities in current practice. In the future, these estimates can be used in economic models as baseline inputs for the assessment of psoriasis interventions.



“The results from this analysis will quantify resource utilisation and related costs of treating psoriasis patients with co-morbidities in current practice.”

FLASH PROJECT

FLASH-UK is a clinical trial being conducted by the Manchester Clinical Trials Unit (MCTU) and funded by Diabetes UK.

The study is an open-label, randomised, parallel design study of a CE marked device. In the study, the participants will use either the FreeStyle Libre 2 (FSL2) device or continue usual finger-stick glucose monitoring in random order for 24 weeks. A total of up to 180 participants, aged 16 years or older, with Type 1 diabetes (T1D) on insulin pump therapy or multiple daily injection therapy will be recruited from diabetes clinics.

One of the trial's objectives is to assess the cost effectiveness of the FSL2 device compared with self-monitoring, from the perspective of NHS England. Dr Georgios Gkountouras and Professor Rachel Elliott from MCHE are the health economists on the FLASH-UK research team and lead the economic evaluation workstream of the trial.

STUDENT SPOTLIGHT: YUBO WANG

Yubo worked as an oncology pharmacist in a hospital in China before embarking on his PhD research in 2018. His PhD research evaluates the clinical and cost-effectiveness of primary endocrine therapy in older women with breast cancer.

There is an increasing number of women diagnosed with breast cancer at an older age. However, surgery is not the best initial treatment for older women with primary breast cancer due to the higher incidence of frailty and multi-morbidity in the ageing population. Primary endocrine therapy has been widely used as the initial treatment strategy for women with inoperable primary breast cancer in the UK, despite no robust clinical and cost-effectiveness evidence. This PhD research is a collaboration between the Centre of Pharmacoepidemiology and Drug Safety and the Manchester Centre for Health Economics (MCHE).

Yubo is working with Dr Sean Gavan to develop a decision model evaluating the cost-effectiveness of surgical and non-surgical initial treatment strategies older women with primary breast cancer. The model was informed by a scoping review of published economic evaluations and the results are soon due to be published.

Yubo is also working with Dr Li-Chia Chen and Dr Douglas Steinke to conduct a cohort study using a large primary care database in the United Kingdom (Clinical Practice Research Datalink (CPRD) Gold and Aurum) and linking it with a secondary care database (Hospital Statistics Episode) and the National Cancer Registry datasets. The results of the cohort study will be used to populate the cost-effectiveness model.



MENTAL HEALTH SERVICE USERS AND CARERS RESEARCH METHODS COURSE

In Greater Manchester Mental Health Services & Pennine Care NHS Foundation Trust, service users and carers of mental health services are being given the opportunity to learn more about the research methods used in mental health research. Taking place via Zoom over 5 sessions, the course aims to support service users and carers keen to know more about research and to become more involved in research.

In September Professor Linda Davies and Gemma Shields from MCHE contributed to the course with a session introducing health economics. This work is supported by the National Institute for Health Research (NIHR) Applied Research Collaboration Greater Manchester (ARC-GM).

MCHE SEMINARS

Prof Emma Frew
Professor of Health Economics
University of Birmingham
14 Sep 2020

Stuart Carroll
Head of Health Economics Sanofi UK
& Ireland
26 Oct 2020

Dr Valesca Retèl
Senior Health Economist
Netherlands Cancer Institute
16 Nov 2020

UNIVERSITY OF MANCHESTER INNOVATION FACTORY (UMIF): EVIDENCE-BASED VALUE PROPOSITIONS FOR HEALTHCARE INNOVATIONS

MCHE are very pleased to continue the collaboration with University of Manchester Innovation Factory (UMIF) for a second year. UMIF works with academic and student inventors to identify research that has the potential to create future value. Previously known as UMI, the organisation has recently been restructured to more effectively deliver its mission which is to create positive social and economic impact by commercialising the University's innovations and intellectual property. Dr Zoe Philips and Dr Alexander Thompson provide strategic advice and offer a framework to help ensure the articulation and development of evidence-based value propositions for the health care innovations that UMIF supports.

Working together with the UMIF operations and business development directors and project managers, they offer guidance and training so that the additional value brought about by healthcare innovations – for example, through additional health benefits compared with relevant alternatives, or health service cost savings – can be demonstrated with evidence. For more information please contact Zoe on zoe.philips@manchester.ac.uk.

For more info, please visit:
<https://uominnovationfactory.com>

DIGITAL CARE HOMES PROJECT

Health Innovation Manchester (HiInM) has initiated a programme to support care homes in Greater Manchester (GM) adopt digital technologies in health and care management. Initially, an app 'Safe Steps' was introduced in 25 care homes in Tameside and Glossop for the prevention of falls in care homes. With the onset of the Covid-19 pandemic, the app is adapted to allow staff input Covid-19 related symptoms of residents, which is shared with their GPs and other NHS community for a prompt response and is displayed at an aggregate level into a visual GM Covid-19 Dashboard. Plans are in place to enable staff to flag other key early signs of deterioration into the app (via RESTORE2-mini). Currently, the app is used by more than fifty care homes in Tameside and Salford local authorities.

Members of MCHE, among other university staff, are involved in the evaluation of the deployment and the impact of the digital tool in care homes in GM. The evaluation involves a mixed methods approach and aims to describe the perceptions of key stakeholders in relation to the app adoption, implementation, and workload implications. The project will also evaluate the impact of the tool on

decision-making in GM Health and Care System and its impact on care residents and the wider GM population.

The quantitative evaluation is led by Dr William Whittaker, Senior Lecturer at MCHE, and supported by Dr Akbar Ullah (Research Associate at MCHE). It will categorise the spread of Covid-19 by factors such as the size and CQC rating of the care home and economic and social deprivation of the care home area. Importantly, it will study the possible impact of the app on the Covid-19 spread in care homes and hospital admissions from care homes. The project will apply advanced multi-periods evaluation methods to study the dynamic impacts of the app and control for possible spill-over of Covid-19 across care homes.



NIHR GLOBAL HEALTH RESEARCH GROUP ON STILLBIRTH PREVENTION AND MANAGEMENT IN SUB-SAHARAN AFRICA

The NIHR has funded a £2 million project through their Global Health Research programme, led by Dame Professor Tina Lavender, to research stillbirths in a number of countries in Sub-Saharan Africa. The project takes a multi-disciplinary, multi-methods approach to address important research questions. A key finding from the first phase of the project was an association between a low number of routine visits to antenatal clinics and an increased risk of stillbirth. Funding for a second phase of the project was agreed in 2019.

As part of phase 2 of this project, Dr Elizabeth Camacho from MCHC is co-leading a workstream using a discrete choice experiment (DCE) to explore the preferences of pregnant women in Tanzania in relation to the antenatal care. The results will be used to inform improvements in how antenatal care is delivered, with the aim of increasing the proportion of women attending for regular antenatal care, and hopefully as a result reducing stillbirth rates. Data collection started in September 2020.



RECENT MCHC PUBLICATIONS

Wright SJ, Paulden M, Payne K. Implementing Interventions with Varying Marginal Cost effectiveness: An Application in Precision Medicine. *Medical Decision Making* 2020 (in press)

Gavan S, Jani M, Bluett J, Payne K, Barton A. Therapeutic Monitoring of TNF Inhibitors for Rheumatoid Arthritis: Evidence Required following NICE's Recommendations. *Rheumatology Advances in Practice* 2020 (in press)

White KL, Henson CC, Hann M, Eden M, Burden ST, Lal S, Davidson SE, McLaughlin JT. Randomised clinical trial of a gastrointestinal care bundle to reduce symptoms in patients with pelvic cancer undergoing chemoradiotherapy. *BMJ Open Gastroenterol* 2020;7

Allen T, Walshe, K, Proudlove N, Sutton M. The measurement and improvement of maternity service performance through inspection and rating: An observational study of maternity services in acute hospitals in England. *Health Policy* 2020 (in press)

Pedersen LB, Allen T, Waldorff FB, Andersen MK. Does accreditation affect job satisfaction of general practitioners? A combined panel data survey and cluster randomised field experiment? *Health Policy* 2020; 124(8); 849-855

French DP, Astley S, Brentnall AR, Cuzick J, Dobrashian R, Duffy SW, Gorman LS, Harkness EF, Harrison F, Harvie MN, Howell A, Jerrison A, Machin M, Maxwell AJ, McWilliams L, Payne K, Qureshi N, Ruane H, Sampson S, Stavrinos P, Thorpe E, Ulph F, van Staa T, Woof V, Evans DG. What are the benefits and harms of risk stratified screening as part of the NHS Breast Screening Programme? Study protocol for a multi-site non-randomised comparison of BC-Predict versus usual screening. *BMC Cancer* 2020;20:570

Hammond A, Sutton C, Cotterill S, Woodbridge S, O'Brien R, Radford K, Forshaw D, Verstappen S, Jones C, Marsden A, Eden M, Prior Y, Culley J, Holland P, Walker-Bone K, Hough Y, O'Neill TW, Ching A, Parker J. The effect on work presenteeism of job retention vocational rehabilitation compared to a written self-help work advice pack for employed people with inflammatory arthritis: protocol for a multi-centre randomised controlled trial (the WORKWELL trial). *BMC Musculoskeletal Disorders* 2020; 21, 607

Pate A, Elliott RA, Gkountouras G, Thompson A, Emsley R, van Staa T. The impact of statin discontinuation and restarting rates on the optimal time to initiate statins and on the number of cardiovascular events prevented. *Pharmacoepidemiology and Drug Safety* 2020; 29(6)

Forbes R, Birch S. Weighing up the benefits and challenges of hosting physiotherapy student placements in private practice; a qualitative exploration. *Physiotherapy in Practice* (in press)

Birch S, Gibson J, McBride A. Opportunities for, and implications of, skill mix changes in health care pathways: Pay, productivity and practice variations in a needs-based planning framework. *Social Science & Medicine* (in press)

Hill, H, Howarth E, Walsh T, Tickle M, Birch S, Brocklehurst P. The impact of changing provider remuneration on clinical activity and quality of care: Evaluation of a pilot NHS contract in Northern Ireland. *Community Dentistry and Oral Epidemiology* (in press)

Wang X, Song K, Zhu P, Valentijn P, Huang Y, Birch S. How Do Type 2 Diabetes Patients Value Urban Integrated Primary Care in China? Results of a Discrete Choice Experiment. *International Journal of Environmental Research and Public Health*, 17; 117-129.

Elliott RA, Camacho E, Jankovic D, Sculpher MJ, Faria, R. Economic analysis of the prevalence and clinical and economic burden of medication error in England. *BMJ Quality and Safety* 2020 (in press)

IN OTHER NEWS...

Welcome to Dr Akbar Ullah who has joined MCHC as Research Associate and Dr Chris Grigoroglou who has joined MCHC as Research Fellow • Congratulations to Dr Georgios Gkountouras who successfully defended his PhD thesis • Congratulations to Rob Hainsworth for finishing his NIHR Research Methods Fellowship and starting as Research Associate