



Canolfan Economeg Iechyd a Gwerthuso Meddyginiaethau

CHEME

Centre for Health Economics and Medicines Evaluation



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SUMMER 2020

Welcome to the Summer 2020 newsletter of the Centre for Health Economics and Medicines Evaluation (CHEME)

These are very challenging times as we adjust to unfamiliar situations in the midst of a pandemic. At CHEME, we've continued research activities insofar as this has been possible, and are developing new projects in response to COVID-19. In this issue, we focus on recent activities and achievements which include:

- Research concerning the treatment and socioeconomic effects of COVID-19
- Development of the MobQoL measure for people who use wheelchairs and other assistive mobility aids
- The economics of chronic fatigue syndrome
- The economics of social prescribing, with the dissemination of the findings of our Health Precinct Project

Further information on research, teaching (including short courses), and NHS support activities is available from our website (cheme.bangor.ac.uk) or by contacting our administrator Ann Lawton (cheme@bangor.ac.uk).

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Professor Dyfrig Hughes & Professor Rhiannon Tudor Edwards

CHEME co-directors

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SPOTLIGHT ON RESEARCH...

Whilst working from home, we are proving policy support and research addressing the challenges of COVID-19. Rhianon is part of a working group of economists across Wales supporting the Office of the Secretary of State for Wales looking at how to bring the Welsh economy out of the lockdown whilst minimising the further spread of COVID-19.

Treatment of chloroquine poisoning

Research by Dyfrig has provided important evidence on the safety of treatments that are being tested for use in COVID-19. Chloroquine, an old drug developed for treating malaria, and hydroxychloroquine, a chemically related drug used in autoimmune diseases, are being repurposed as potential treatments for COVID-19. The FDA authorised their emergency use in the USA, and many national clinical guidelines make recommendations for their use in the prevention and treatment of COVID-19. However, both drugs are poisonous in overdose. Cases of unintentional overdoses have been reported over many decades in malarious regions of the world, but reports of cardiotoxicity and fatal poisoning relating to their use in COVID-19 are now emerging. Current recommendations for the management of poisoning include the administration of diazepam. However, there are uncertainties in whether, and if so, how diazepam works in this context. Research by Dyfrig involved experimental models of chloroquine toxicity and studies of the effects of diazepam. The results showed that diazepam alone does not reduce the effects of chloroquine on the heart, but it does improve cardiac function when used in combination with adrenaline – another drug used in the management of chloroquine toxicity.

More COVID-19—related research

Dyfrig, Dr Colin Ridyard, Dr Ned Hartfiel and Dr Nathan Bray are involved in developing a range of studies in COVID-19 (e.g. involving patients with haematological cancers, disparity in testing and overseas aid, and use of PrEP for HIV prophylaxis). Colin has joined the Welsh Government's COVID-19 Register of Experts Initiative.

The economics of chronic fatigue syndrome

Research by Dyfrig into the economic impact of chronic fatigue syndrome (or myalgic encephalomyelitis), undertaken as part of the European Network on ME/CFS (EUROMENE), has been cited by the [European Parliament](#) in their decision to support increased biomedical research funding for ME/CFS. The research identified that the annual burden of ME/CFS in Europe could be in the region of €40 bn, and made recommendations for future research directed at assessing the economic impacts of ME/CFS. This is pertinent given the likely high incidence of post-viral fatigue syndrome in COVID-19 survivors.

Development of the MobQoL measure for people who use wheelchairs and other assistive mobility aids

Nathan, Dr Llinos Haf Spencer, Dr Lorna Tuersley and Rhianon have recently developed a new patient-reported outcome measure for mobility-related quality of life, known as MobQoL. The EQ-5D does not work well for people who use wheelchairs or other mobility assistive aids. The MobQoL is a novel outcome measure that covers a range of different aspects of quality of life which can be affected or influenced by mobility. The MobQoL tool is being developed as part of Nathan's Health and Care Research Wales fellowship.

In the next stage of the project, the team will pilot the MobQoL tool and then develop a preference-based scoring system. The overarching objective of the project is to produce a validated and reliable tool to support the economic evaluation of interventions aimed at improving mobility. To find out more about this project, please see: <https://cheme.bangor.ac.uk/mobqol>



Understanding how mobility affects quality of life

PaCT: Patient centred benefit-risk assessment of treatment for colorectal liver metastases in North West England and North Wales

Dr Emily Holmes, Dr Laura Timmis and Dyfrig are working on a North West Cancer Research (NWCR) funded project, in partnership with colleagues at Liverpool Hepatobiliary Centre and the North Wales Cancer Treatment Centre. The research aims to understand patient and health care professionals' preferences for treatment of colorectal cancer liver metastases. There are multiple treatment options and combinations including surgery, chemotherapy and ablation. Treatment decisions require a trade-off between potential risks (for example, adverse events from treatment) and benefits (for example, survival and quality of life). Knowing how preferences for treatments differ between different groups of patients will help to improve the care for people living with cancer in the North West and North Wales.

EVENTS...

Exploring the economics of social prescribing

Findings from the Health Precinct study were disseminated at an event held in Colwyn Bay. Funded by Health and Care Research Wales, and led by Dr Carys Jones, the study evaluated the impact of social prescribing of a physical activity programme had on the health and well-being of older people with chronic health conditions. Enablers of success were: strong staff-client mentorship; the opportunity for participants to engage with health improvement activities in a leisure centre environment rather than a clinical setting; structured groupwork providing social interactions whilst also encouraging participants to adhere to a 16-week programme, and the promotion of self-care and independence through participants being empowered to co-produce health and well-being goals. A social return on investment analysis found that £5.07 of social value was generated by the Health Precinct for every £1 invested.



Health Precinct study dissemination event

NEWS...

Data Protection and Security Toolkit

CHEME's annual publication of its Data Security and Protection (DSP) Toolkit assessment was achieved in March (CENTRE FOR HEALTH ECONOMICS & MEDICINES EVALUATION 8WG96). A relatively new requirement, the DSP Toolkit must be published on an annual basis to demonstrate compliance with data handling legislation such as GDPR. As part of the DSP requirements, CHEME's System-Level Security Policy, Privacy Notice and general Data Protection Impact Assessment are published online and available at: <https://cheme.bangor.ac.uk/data-protection.php.en>

Analysis of high cost medicines

Dyfrig was recently awarded £150k by NHS England to identify unexplained variation in the uptake of high cost medicines within secondary care.

STOP'EM trial

Led by Professor Michael Jenkinson of the University of Liverpool, and with Dyfrig as the lead health economist, the NIHR HTA recently awarded funding for the Surgeons Trial Of Prophylaxis for Epilepsy in seizure naïve patients with Meningioma (STOP'EM) trial.

War-PATH (WARfarin anticoagulation in PATients in Sub-Saharan Africa)

As part of the NIHR Global Health Research Group led by Professor Sir Munir Pirmohamed of the University of Liverpool, Dyfrig is leading an investigation on the cost-effectiveness of implementing a "bundle of care" to improve anticoagulation control. Also, with Dr Dan Hill-McManus, to identify better warfarin dose regimens.

Welcome to our intern - Naa

We welcome Naa Amua Quaye, medical student, as an intern learning about health economics at CHEME.



Lorna, Naa and Rhiannon

Welcome back - Yankier

Yankier Pijeira Perez returned to CHEME to start a full-time PhD, supervised by Dyfrig, on optimal designs for studies that follow on from HTA coverage with evidence development decisions.

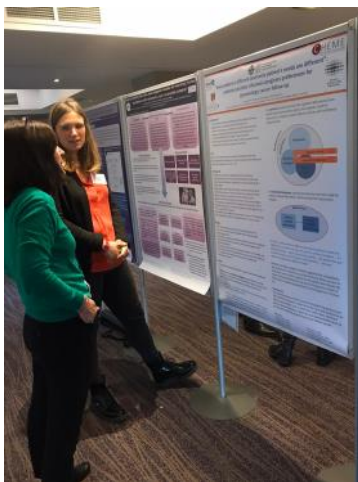


PRESENTATIONS...

Emily, Eifiona Wood, and Dr Catrin Plumpton delivered training on economic evidence to inform guidelines, orphan drugs, and economic modelling at the All Wales Medicines Strategy Group Annual Training Day in Cardiff.

Emily and Dyfrig delivered a workshop on cost associated with patient safety at a meeting convened by Dr Chris Subbe in Beaumaris.

Laura presented a poster at the British Psychosocial Oncology Society conference in Edinburgh on the findings from a formative qualitative study on patients and their informal caregivers preferences for care.



Laura presents her conference poster

Carys presented on integrated health and social care community hubs at the Health Economists' Study Group Winter 2020 meeting, hosted by Newcastle University.

Colin presented a poster at the same meeting on the cost utility analysis of continuous subcutaneous insulin infusion in UK paediatric patients newly diagnosed with Type 1 Diabetes, whilst Lorna presented a poster on developing a tariff of costs and budget impact analysis for paediatric powered mobility provision.

Ned, representing CHEME's Social Value Hub, presented on 'Measuring the Social Value of Woodland Activities' to a conference in Birmingham for National Trust General Managers.

PUBLICATIONS...

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