



Canolfan Economeg Iechyd a Gwerthuso Meddyginiaethau

CHEME

Centre for Health Economics and Medicines Evaluation



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SUMMER 2018

Welcome to the Summer 2018 newsletter of the Centre for Health Economics and Medicines Evaluation (CHEME)

In this issue, we focus on recent achievements which include:

- The marriage of pharmacometrics and pharmacoeconomics— Dan Hill-McManus presents his research in Montreux.
- CHEME collaborates with the University of Liverpool on sight saving research on the NIHR-i4i funded optical coherence tomography (OCT) study.
- SROI social care economics through the life-course— social value of Sistema Cymru music in schools.
- Recent events: Pharmacoeconomics Short course; Health Economics for Public Health Practice & Research Short course; and Medicines-related research: Colloquia and symposia.

Further information on research, teaching (including short courses) and NHS support activities is available from our website: cheme.bangor.ac.uk or contact 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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Seow Tien Yeo and Rhiannon Tudor Edwards

SPOTLIGHT ON RESEARCH...

Exploring the economics of sight-saving technology

Over two million people in the UK are living with sight loss. This is expected to double by 2050 as the population ages and the prevalence of underlying causes such as obesity and diabetes increase. This places huge pressure on NHS eye care services. Sight loss is estimated to cost the UK economy over £28 billion per year.

Research into new sight-saving technology could improve the lives of people at risk of sight loss and provide value to the NHS and wider economy.

CHEME has a track record in publishing economic studies on intervention to prevent and manage sight loss, working recently with Moorfields Eye hospital on the CLARITY study published in the Lancet, and the SYCAMORE trial, with Bristol University, published in the NEJM (see our previous newsletters for details).

Seow Tien Yeo and Rhiannon Tudor Edwards are co-investigators on the NIHR-i4i funded optical coherence tomography (OCT) study (£1.3 million), led by Dr Yalin Zheng from the University of Liverpool's Department of Eye & Vision Science. This study aims to develop and explore the clinical effectiveness and cost-effectiveness of an Ultra-Sensitive OCT device to improve the management of eye disease, bring earlier detection and diagnosis, allow stratification and personalisation of clinical management, and improve monitoring of treatment outcomes for patients with corneal diseases (keratoconus and Fuchs endothelial corneal dystrophy).

The marriage of pharmacometrics and pharmacoeconomics

Dan Hill-McManus' PhD, funded by the MRC Network of Hubs in Trial Methodological Research, is focussing on linking the outputs of models that are well established in quantitative pharmacology, with health economic models, to estimate the cost-effectiveness (or identify value-based prices) of drugs in development. In collaboration with Pfizer, this work aims to bridge the two disciplines, and establish the utility of such an approach in the context of model-based drug development (MBDD). Dan presented recent findings at the Population Approach Group Europe meeting in Montreux.



SROI Evaluation of Sistema Cymru – Codi'r To

Welsh Government is encouraging social care research across the life-course. Eira Winrow and Rhiannon Tudor Edwards have finished their Social Return on Investment (SROI) evaluation of Sistema Cymru – Codi'r To. This study concentrates on the impact of the Codi'r To music in schools programme in Gwynedd, North Wales. Codi'r To aims to address disadvantage and educational attainment in areas of multiple deprivation for the good of the children, their families and the community.

The SROI evaluation, a pragmatic version of cost-benefit analysis (CBA), was carried out over 12 months, and the findings were positive for the four stakeholder groups – the pupils, their families, the wider school and the community. The programme has the potential to generate social value across a range of £4.59 to £8.95 for every £1 invested, with a base case ratio based on our research and assumptions of £6.69: £1.

RECENT EVENTS...

Pharmacoeconomics Short course

This year CHEME launched our first residential short course in Pharmacoeconomics. 16 delegates from across the UK, other European countries and the middle East enjoyed an intensive, but very informative introduction to the principles, methods, and application of health economics in the context of medicines.



Health Economics for Public Health Practice & Research Short course

We were delighted to welcome 11 delegates to our annual Health Economics for Public Health Practice & Research Short course in March, teaching health economics to Public Health practitioners and those undertaking research in Public Health.

The course covers concepts, methods and the application of Health Economics to Public Health and attracts delegates both nationally and internationally.

Medicines-related research: Colloquia and symposia

Dyfrig Hughes was pleased to welcome the Clinical Pharmacology Colloquium to Bangor for the third occasion. Sponsored by the British Pharmacological Society, this biannual event provides an informal setting for researchers to present cutting-edge research in topics relating to clinical pharmacology.

The 2018 Welsh Medicines Research Symposium will be held in Cardiff on the 17th July. Funded by Health and Care Research Wales, hosted by the Royal Pharmaceutical Society and organised by Dyfrig Hughes, the event is expected to attract ~50 delegates. This year's keynote speaker is Dr Claire Thompson, the Royal Pharmaceutical Society's deputy chief scientist.

Book your free place here: <http://rphar.ms/symposium>

WATCH



The Wheelchair outcomes Assessment Tool for Children (WATCH) tool is a new, free to use patient-centred outcome measure developed by CHEME and the Shropshire Wheelchair and Posture Service. The WATCH development project was funded as part of an NHS England research programme to develop patient-centred outcome measures for children and young people. CHEME's Dr Nathan Bray, Professor Rhiannon Tudor Edwards and Dr Lorna Tuersley led the project, in collaboration with Shropshire CCG and Telford & Wrekin CCG.

The WATCH tool was developed through consultation with young wheelchair users and their parents. The tool has been designed to allow clinicians and therapists to identify, score and monitor young wheelchair users' most important outcomes before and after getting a wheelchair. The WATCH tool comprises 16 outcome options, from which service users select their 'top five' outcomes. Service users then describe what they wish to achieve and rate their satisfaction with each outcome before and after wheelchair provision. The tool will allow service providers to ascertain how well desired outcomes are being achieved, both for individual users and for a specific outcome across service users. The WATCH tool is available in paper and electronic format from <http://cheme.bangor.ac.uk/watch>

The WATCH tool has been positively received by the National Wheelchair Managers Forum and the NHS Personalised Wheelchair Budget National Steering Group. The WATCH team are currently in discussion with NHS England to implement use of the tool across the UK as part of the new Personalised Wheelchair Budget scheme. For further information please contact Dr Lorna Tuersley (l.tuersley@bangor.ac.uk).



Motor Neurone Disease

Motor Neurone Disease (MND) is a neurodegenerative condition that impacts patients' lives drastically, with extensive debilitations in terms of mobility, communication and breathing. Life expectancy is only 3 -5 years from disease onset and treatment is focused on symptom management, slowing disease progression and providing palliative care.

Alan Moore, who is in his final year of PhD studies, was awarded a Motor Neurone Disease Association PhD studentship, under the supervision of Dyfrig Hughes, to research the economics of MND.

A systematic review of existing evidence identified 15 economic evaluations which suffered from significant methodological issues such as a lack of data, uncertainty with the disease course and inappropriate modelling framework [Pharmacoeconomics 2017;35(4):397-413].

Subsequently, Alan developed an algorithm for mapping the ALSFRS(R)—the standard disease-specific outcome measure—onto EQ-5D utilities to facilitate the conduct of future evaluations [Value in Health, forthcoming].

More recently, Alan has analysed data from the Trajectories of Outcome in Neurological Conditions (TONiC) longitudinal cohort study <http://tonic.thewaltoncentre.nhs.uk/> to define appropriate health states, and estimate patient costs and health state utilities.

Alan's final PhD chapter will focus on estimating the cost-effectiveness of edavarone, the first MND drug to be marketed in 22 years.

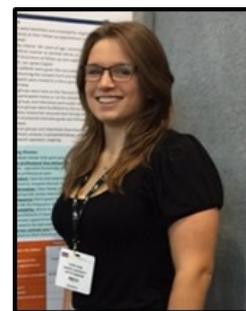


PhD

Siobhan Bourke successfully defended her PhD, on the Economics of Orphan Drugs. Supervised by Dyfrig Hughes and Catrin Plumpton (pictured with Siobhan), a key finding of her research was in relation to public preferences for high cost medicines for rare disease. We wish Siobhan well as she leaves CHEME for other career opportunities.



Laura Timmis is in the process of writing up her thesis 'Patients and informal caregiver's preferences for gynaecology cancer follow up care' (funded by Tenovus Cancer Care). A systematic literature review, qualitative study and discrete choice experiment have yielded interesting findings for policy development: can the NHS invest in reassurance?



Welsh Crucible

Catrin Plumpton, left, has been selected for the Welsh Crucible, a scheme aimed to develop personal, professional and leadership skills for future research leaders of Wales.

Farewell

We wish Dr Rikesh Bhatt well on his move to UCL.

PRESENTATIONS...

Emily Holmes presented an overview of research into epilepsy conducted by CHEME at the Epilepsy Action Cymru event: Epilepsy, your Assembly Member and You, in Anglesey on 14th April 2018.



Dyfrig Hughes presented on the economics of pharmacogenetic testing at a recent Wales Gene Park event, and at a Pharmacogenetics and Stratified Medicines Network event. He is member of the NHS England and Genomics England Pharmacogenomics working group, and is pharmacogenetics champion for the Royal Pharmaceutical Society, responsible for promoting pharmacy engagement in the development and delivery of UK pharmacogenetics services.

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cheme.bangor.ac.uk

cheme@bangor.ac.uk

01248 382153

@CHEMEBangor

Centre for Health Economics & Medicines Evaluation

Ardudwy, Normal Site, Bangor University,

Bangor, Gwynedd, LL57 2PZ