



WINTER 2018/19

Welcome to the Winter 2018/19 newsletter of the Centre for Health Economics and Medicines Evaluation (CHEME)

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

- The STRAWB study, which received an 'Outstanding Contribution to Midwifery Services' award at the Maternity and Midwifery Festival 2018.
- The Trials Methodology Research Partnership, funded by the MRC-NIHR Methodology Research Programme to further develop research on trials-based economic evaluation.
- The presentation of the findings of a cost effectiveness study of point of care C-reactive protein testing to reduce antibiotic prescribing for respiratory tract infection at the Welsh Health Economics Group (WHEG) meeting.

Further information on research, teaching (including short courses) and NHS support activities is available on our website:

cheme.bangor.ac.uk or contact our administrator Ann Lawton: cheme@bangor.ac.uk

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Professor Rhiannon Tudor Edwards & Professor Dyfrig Hughes

CHEME Co-directors

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'Siobhan Bourke graduated with a PhD'

SPOTLIGHT ON RESEARCH...

Exploring PTSD in Childbirth – the Stress and Wellbeing after Birth (STRAWB) trial

A recent study Ayers and colleagues at City University, London found that between 3% and 4% of women report post-traumatic stress disorder (PTSD) in pregnancy and after birth. PTSD can affect the bond between mother and baby, and wider relationships between the mother and her partner. PTSD has significant implications for health services and clinical practice. PTSD may be preventable through targeted cognitive and behavioural interventions; however, the majority of evidence available was conducted with combat veterans, and more evidence is needed for different population groups.

In light of this evidence gap, Prof Rhiannon Tudor Edwards, Dr Joanna Charles and Lucy Bryning are working with Professor Pauline Slade and colleagues at the University of Liverpool and Liverpool Women's Hospital to conduct a clinical and economic evaluation of the Stress and Wellbeing after Birth (STRAWB) trial. This is a randomised controlled trial, which screens post-partum women at risk of PTSD and provides self-help materials to those who screened positively. The self-help materials are a leaflet and videos. Women were recruited from four community midwifery teams located within Liverpool Women's Hospitals Trust (Liverpool) and Lancashire Teaching Hospitals Trust (Preston). Economic findings are expected to be reported Spring 2019.

The STRAWB study received an award for 'Outstanding Contribution to Midwifery Services' at the Maternity and Midwifery Festival in Manchester, June 2018. The research was also shortlisted for the Royal College of Midwives annual awards in the category of Award for Excellence in Maternity Care, December 2018.

Economics of rare dementias

CHEME is partnering with University College London on a £5 million five year study funded by the ESRC looking at the care of people living with rare dementias. This will build on an ongoing study led by Nottingham funded by the NIHR, modelling the economics of interventions to support activities of daily living through exercise. CHEME are keen to collaborate with other health economic modellers working on economic evaluations of interventions for people with dementia.

RECENT EVENTS...

Emily Holmes, Dyfrig Hughes and colleagues have recently completed a cost-effectiveness of point of care C-reactive protein testing to reduce antibiotic prescribing for respiratory tract infection. The findings were presented at the Welsh Health Economics Group (WHEG) meeting, to the BCUHB Antimicrobial Stewardship Group, and at the BCUHB Academic Grand Round, in October 2018.



'Welsh Health Economics Group Meeting, Gregynnog 2018'

NEWS...

Coaching and mentoring in health economics

Rhiannon Tudor Edwards is leading the HESG pilot mentoring scheme which will report in May 2019. She is an Institute of Leadership and Management qualified coach, recently gained her Wellbeing coaching qualification from the British School of Coaching, and is a member of the International Society for Qualified Coaches. The HESG scheme has gained interest from health economics organisations in Spain and the United States.

New appointment

Huw Lloyd-Williams has been appointed as a Research Officer in Health Technology Assessment working with Dyfrig Hughes. Huw will be working on a systematic review collating evidence on the economic evaluation of advanced therapy medicinal products (ATMPs). These are novel gene and cell therapy treatments which are very expensive. The review will identify studies that assess their cost effectiveness and the ways in which they are appraised and funded.

SHORT COURSES...

Public health economics

Registration is open for the upcoming short course in Health Economics for Public Health Practice and Research at Bangor University, 8th – 10th April, 2019

<https://cheme.bangor.ac.uk/events/health-economics-for-public-health-practice-research-37795>

Pharmacoeconomics

Registration is open for the upcoming short course in Pharmacoeconomics at Bangor University, 12th – 13th September, 2019

<https://cheme.bangor.ac.uk/events/pharmacoeconomics-short-course-34917>

METHODOLOGICAL RESEARCH...

Economic evaluations alongside trials

The MRC recently awarded funding to establish the Trials Methodology Research Partnership (TMRP) which brings together a number of networks, institutions and partners working in trials and trials methodology research. Led by Professor Paula Williamson of the University of Liverpool, the TMRP will offer an opportunity to build on the achievements of the MRC HTMR Network while exploring new collaborations and avenues to make continued progress in advancing trial methodology, developing capacity and further reducing research waste.

The partner networks which will join the five Hubs within the MRC HTMR Network include the Global Health Network, Health Research Board Trials Methodology Research Network, Health Data Research UK, the UKCRC Registered CTU Network, the UK Trial Managers' Network and 21 University centres. Dyfrig Hughes will lead on behalf of Bangor University and co-lead the Health Economics Working Group on research activities to extend the role

of economic evaluations in stratified medicine, cost-effectiveness of digital tools in trials, and the use of expected value of sample information to inform adaptive trial design.

Benefit risk analysis

Drug development and regulatory decision-making require explicit evaluation of benefits and risks. In balancing the benefits and risks of medicines, judgements are required on the maximum acceptable risk of harm for an expected health benefit. The 21st Century Cures Act (section 3002) requires the FDA to develop guidance for integrating relevant patient experience data in benefit-risk assessments for new drugs and biologics. Research by Emily Holmes and Dyfrig Hughes demonstrated how this may be achieved by weighting clinical evidence by patients' benefit-risk preferences. Using a case study of treatments for epilepsy, they found that accounting for patient preferences, in addition to clinical variables, could lead to different treatment choices or regulatory decisions (doi: 10.1002/cpt.1231).

PRESENTATIONS...

Emily Holmes (CHEME) and David Gillespie (Cardiff University) delivered a workshop on "Medical adherence in clinical research" at The PRIME Centre Wales Annual Meeting in Pontypridd in November 2018.



Emily Holmes

The workshop was attended by researchers, healthcare professionals and lay members, who were introduced to the taxonomy for medication adherence and discussed the challenges of measuring adherence in practice.

Eira Winrow, Mary Lynch and Rhiannon Tudor Edwards presented posters at the Lancet Public Health Science conference in Belfast.

Victory Ezeofor gave a presentation at the Valuing Nature Conference in Cardiff.



Victory Ezeofor

PUBLICATIONS...

Philbin L, Woods R, Holmes EAF. People with dementia and caregiver preferences for digital life story work service interventions: A discrete choice experiment and digital survey. *Aging Mental Health*, 2018 (In press).

Janssen N, Handels RL, Sköldunger A, Woods B, Jelley H, Edwards RT, Orrell M, Selbæk G, Røsvik J, Gonçalves-Pereira M, Marques MJ, Zanetti O, Portolani E, Irving K, Hopper L, Meyer G, Bieber A, Stephan A, Kerpershoek L, Wolfs CAG, de Vugt ME, Verhey FRJ, Wimo A; Consortium Actifcare. Impact of Untimely Access to Formal Care on Costs and Quality of Life in Community Dwelling People with Dementia. *J Alzheimers Dis*. 2018;66(3):1165-1174.

- Tuersley L, Bray N, Edwards RT. Development of the Wheelchair outcomes Assessment Tool for Children (WATCh): A patient-centred outcome measure for young wheelchair users. *PLoS One*. 2018 Dec 26;13(12):e0209380.
- Holmes E, Bourke S, Plumpton C. Attitudes towards epilepsy in the UK population: Results from a 2018 national survey. *Seizure*. 2018 Dec 18;65:12-19.
- Holmes EAF, Harris SD, Hughes A, Craine N, Hughes DA. Cost-Effectiveness Analysis of the Use of Point-of-Care C-Reactive Protein Testing to Reduce Antibiotic Prescribing in Primary Care. *Antibiotics (Basel)*. 2018;7(4). pii: E106.
- Hill-McManus D, Marshall S, Soto E, Lane S, Hughes D. Impact of Non-Adherence and Flare Resolution on the Cost-Effectiveness of Treatments for Gout: Application of a Linked Pharmacometric/Pharmacoeconomic Model. *Value Health*. 2018 Dec;21(12):1373-1381.
- Stanciu MA, Morris C, Makin M, Watson E, Bulger J, Evans R, Hiscock J, Hoare Z, Edwards RT, Neal RD, Yeo ST, Wilkinson C. Trial of personalised care after treatment-Prostate cancer: A randomised feasibility trial of a nurse-led psycho-educational intervention. *Eur J Cancer Care (Engl)*. 2018 Nov 26:e12966.
- Jones C, Windle G, Edwards RT. Dementia and Imagination: A Social Return on Investment Analysis Framework for Art Activities for People Living With Dementia. *Gerontologist*. 2018 Nov. doi: 10.1093/geront/gny147.
- Plumpton CO, Pirmohamed M, Hughes DA. Cost-effectiveness of panel tests for multiple pharmacogenes associated with adverse drug reactions: An evaluation framework. *Clin Pharmacol Ther*. 2018 Nov 22. doi: 10.1002/cpt.1312.
- Edwards RT. The Inclusion of Spillover Effects in Economic Evaluation: A Public Health Economics Perspective. *Pharmacoeconomics*. 2018 Nov. doi: 10.1007/s40273-018-0748-9.
- Seers K, Rycroft-Malone J, Cox K, Crichton N, Edwards RT, Eldh AC, Estabrooks CA, Harvey G, Hawkes C, Jones C, Kitson A, McCormack B, McMullan C, Mockford C, Niessen T, Slater P, Titchen A, van der Zijpp T, Wallin L. Facilitating Implementation of Research Evidence (FIRE): an international cluster randomised controlled trial to evaluate two models of facilitation informed by the Promoting Action on Research Implementation in Health Services (PARiHS) framework. *Implement Sci*. 2018 Nov 16;13(1):137.
- Moore A, Young CA, Hughes DA. Mapping ALSFRS-R and ALSUI to EQ-5D in Patients with Motor Neuron Disease. *Value Health*. 2018 Nov;21(11):1322-1329.
- Hughes DA, Culeddu G, Plumpton CO, Wood E, Dick AD, Jones AP, McKay A, Williamson PR, Compeyrot Lacassagne S, Hardwick B, Hickey H, Woo P, Beresford MW, Ramanan AV. Cost-Effectiveness Analysis of Adalimumab for the Treatment of Uveitis Associated with Juvenile Idiopathic Arthritis. *Ophthalmology*. 2018 Oct 16. pii: S0161-6420(18)31146-1.
- Sivaprasad S, Hykin P, Prevost AT, Vasconcelos J, Riddell A, Ramu J, Murphy C, Kelly J, Edwards RT, Yeo ST, Bainbridge J, Hopkins D, White-Alalo B. Intravitreal aflibercept compared with panretinal photocoagulation for proliferative diabetic retinopathy: the CLARITY non-inferiority RCT. *NIHR Journals Library*; 2018 Oct.
- Jenkinson MD, Weber DC, Haylock BJ, Sherratt FC, Young B, Weller M, Bulbeck H, Culeddu G, Hughes DA, Brain A, Das K, Preusser M, Francis P, Gamble C. Letter to the Editor. Phase III randomized controlled trials are essential to properly evaluate the role of radiotherapy in WHO grade II meningioma. *J Neurosurg*. 2018 Oct;129(4):1104-1105.
- Holmes EAF, Plumpton C, Baker GA, Jacoby A, Ring A, Williamson P, Marson A, Hughes DA. Patient-Focused Drug Development Methods for Benefit-Risk Assessments: A Case Study Using a Discrete Choice Experiment for Antiepileptic Drugs. *Clin Pharmacol Ther*. 2018 Sep 11. doi: 10.1002/cpt.1231.
- Stanciu MA, Law RJ, Nafees S, Hendry M, Yeo ST, Hiscock J, Lewis R, Edwards RT, Williams NH, Brain K, Brocklehurst P, Carson-Stevens A, Dolwani S, Emery J, Hamilton W, Hoare Z, Lyrtzopoulos G, Rubin G, Smits S, Vedsted P, Walter F, Wilkinson C, Neal RD; WICKED Team on behalf of. Development of an intervention to expedite cancer diagnosis through primary care: a protocol. *BJGP Open*. 2018 Sep 5;2(3):bjgpopen18X101595.
- Wilby MJ, Hopkins C, Bedson E, Howlin S, Burnside G, Conroy EJ, Hughes DA, Sharma M, Marson A, Clark SR, Williamson P. Nerve root block versus surgery (NERVES) for the treatment of radicular pain secondary to a prolapsed intervertebral disc herniation: study protocol for a multi-centre randomised controlled trial. *Trials*. 2018 Sep 5;19(1):475.
- Blair J, McKay A, Ridyard C, Thornborough K, Bedson E, Peak M, Didi M, Annan F, Gregory JW, Hughes D, Gamble C. Continuous subcutaneous insulin infusion versus multiple daily injections in children and young people at diagnosis of type 1 diabetes: the SCIPI RCT. *Health Technol Assess*. 2018 Aug;22(42):1-112.
- Williams NH, Jenkins A, Goulden N, Hoare Z, Hughes DA, Wood E, Foster NE, Walsh D, Carnes D, Sparkes V, Hay EM, Isaacs J, Konstantinou K, Morrissey D, Karppinen J, Genevay S, Wilkinson C. Lessons learnt from a discontinued randomised controlled trial: adalimumab injection compared with placebo for patients receiving physiotherapy treatment for sciatica (Subcutaneous Injection of Adalimumab Trial compared with Control: SCIATIC). *Trials*. 2018 Jul 31;19(1):408.
- Charles JM, Roberts JL, Ud Din N, Williams NH, Yeo ST, Edwards RT. Preferences of older patients regarding hip fracture rehabilitation service configuration: A feasibility discrete choice experiment. *J Rehabil Med*. 2018 Jul 17;50(7):636-642.



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