

CHEME

Centre for Health
Economics and
Medicines Evaluation



PRIFYSGOL
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UNIVERSITY

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

In this issue, we focus on key achievements over the last 6 months, and highlight current activities related to our main research themes of pharmaceutical economics and public health economics, as well as methodological and policy research.

One highlight was welcoming Dr Ruth Hussey, newly appointed Chief Medical Officer for Wales as Keynote Speaker at the 2012 Winter Welsh Health Economics Group meeting, held in Bangor. Dr Hussey outlined her vision of how Health Economics can further contribute to health and social care policy in Wales.

Dyfrig Hughes & Rhiannon Tudor Edwards

CHEME co-directors

SUPPORTING HEALTH POLICY AND THE NHS IN WALES

The Welsh policy to continue not implementing a Cancer Drugs Fund (which costs the NHS in England £200m per year) was linked to our recently published research which demonstrated that the public do not support the premium pricing of treatments for cancer over other, equally serious conditions. Referring to the work of Warren Linley and Dyfrig Hughes, Welsh

Health Minister, Lesley Griffiths said: "This research clearly shows the public supports our evidence-based approach to providing excellent, high quality care for cancer patients in Wales. That is why we have rejected the notion of a Cancer Drugs Fund in Wales."

Rhiannon Tudor Edwards and Jo Charles provide health economics support to Public Health Wales. They recently designed and undertook a programme budgeting and marginal analysis (PBMA) review, in conjunction with Public Health Wales staff, of over 20 health improvement programmes

accounting for a budget of £17m, and spanning smoking cessation services, obesity prevention and exercise promotion initiatives. Peter Bradley, Executive Director of Public Health Development said "this was a new approach.... It has greatly improved the quality of our decision making and shows how well we can work across sectors and disciplines to achieve the best for the people of Wales". Rhiannon and Jo also support the BCUHB Prioritisation Board, contributing to the evidence base for decisions on candidate services in North Wales.

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WINTER 2012/13



UPCOMING EVENTS

- ⚙ Workshop on the methods for benefit-risk analysis in drug regulation and health technology assessment (January 24th & 25th) – with the support of funding from the MRC, this workshop aims to develop a research agenda on the assessment of benefits in relation to harm in the context of HTA (<http://cheme.bangor.ac.uk/riskbenefit>).
- ⚙ CHEME mini symposium, Spring 2013. The mini symposium is designed to provide an opportunity for staff, PhD students and external research partners of CHEME to present their work on topics in health economics.

SEMINAR SERIES

CHEME runs a regular seminar series with invited speakers. We recently heard from:

- ⚙ Professor Matt Stevenson, Professor of Health Technology Assessment at the University of Sheffield, who presented on “Discrete Event Simulation (101 and beyond)”

SPOTLIGHT ON RESEARCH...

- ⚙ Seow Tien Yeo and Rhiannon Tudor Edwards are working on economic analyses of two trials involving treatment of cancer patients. The Trismus Trial, a difficulty in opening of the patient’s jaw following head and neck cancer, at Christie’s Hospital in Manchester is funded by the NIHR Research for Patient Benefit. The second trial assesses improved lung cancer identification by targeted chest X-ray (ELCID) funded by the National Awareness and Early Diagnosis Initiative (NAEDI) – Research Core Funding Partners.
- ⚙ Colin Ridyard and Dyfrig Hughes will soon be analysing the economic data from the CATCH trial (www.catchtrial.org.uk) which has recruited 1451 children to compare the effectiveness of heparin bonded or antibiotic impregnated central venous catheters with standard central venous catheters for the prevention of hospital acquired blood stream infection.
- ⚙ Jo Charles is working on an economic evaluation, including a DCE project developing a multidisciplinary rehabilitation package following hip fracture (FEMuR Trial, funded by HTA).
- ⚙ Dalia Dawoud is trial health economist for the HTA/AR-UK funded SYCAMORE (www.sycamoretrial.org.uk) trial, which is a randomised controlled trial of the clinical and cost effectiveness of adalimumab for the treatment of juvenile idiopathic arthritis associated uveitis.
- ⚙ Nathan Bray and Rhiannon Tudor Edwards will be conducting the economic evaluation of a project on Wellbeing, health and fitness of children with mobility impairments (“well MI”, funded by NISCHR) led by Tom O’Brien and colleagues, School of Sport, Health and Exercise Sciences, Bangor University.
- ⚙ Pat Linck and Colin Ridyard have continued developing the Database of Instruments for Research Use Measurement (www.DIRUM.org) as a practical resource for health economists.
- ⚙ Carys Jones is working on an economic evaluation of the Challenge DemCare project involving people with dementia and their carers.
- ⚙ Emily Fargher, Catrin Plumpton and Dyfrig Hughes lead CHEME’s interests in epilepsy. Current projects, in collaboration with the University of Liverpool, include a DCE of patient preferences for antiepileptic drugs, the HTA-funded SANAD II trial, which is comparing newer treatments for epilepsy (www.sanad2.org.uk), and economic analyses of a pharmacogenetic test to prevent adverse reactions to carbamazepine, and of interventions to enhance adherence to antiepileptic drugs.
- ⚙ Dyfrig Hughes, Warren Linley, Natalia Hounsborne and Dalia Dawoud lead on the economic assessment of all new (non-NICE-appraised) medicines in Wales. In 2012/13 we have contributed to over 50 assessment reports for the All Wales Medicines Strategy Group, including medicines such as eplerenone, ivacaftor, argatroban and pazopanib. Assessment reports are now catalogued in the HTA database of the Centre for Reviews and Dissemination (www.crd.york.ac.uk/crdweb/SearchPage.asp).
- ⚙ Nathan Bray is working on two trials; a cost effectiveness analysis of putting counselling services into low vision centres in Cardiff and London (the DEPVIT Trial, funded by Guide Dogs) (www.cardiff.ac.uk/optom/research/researchprojects/depvit/depvit.html) and an economic evaluation of portable electronic vision enhancement systems in comparison to optical magnifiers for near vision activities in visual impairment funded by the NIHR Research for Patient Benefit.
- ⚙ Huw Lloyd-Williams is working on an economic analysis of a trial assessing the use of FDG-PET or PET/CT in the diagnosis of pancreatic malignancy, funded by the HTA.
- ⚙ James Burrows PhD student is undertaking a cohort study of health outcomes in orthopaedics at Ysbyty Gwynedd, Bangor, designing a way to link these to pay-for-performance.

SUPPORTING RESEARCH DESIGN

CHEME provides support to applicants developing proposals for research funding. Researchers from across Wales may access the Welsh Health Economics Support Service (WHES) (www.hepru.research.glam.ac.uk/whess/) for guidance and advice on developing health economic components of research proposals. We provide a similar service for the North West of England via the Research Design Service (www.rds-nw.nihr.ac.uk). CHEME also provides specialist health economics support to the Methodology Advisory Service for Trials, as part of its collaborative work with the MRC North West Hub for Trials Methodological Research (www.methodologyhubs.mrc.ac.uk/methodology_advisory_service.aspx). As academic lead for the Pharmacy and Medicines Management Clinical Programme Group, Dyfrig Hughes advises on, and promotes research related to medicines across the Betsi Cadwaladr University Health Board (BCUHB).

CHEME'S NEWEST PHD STUDENTS

Mike Palmer has embarked on a part-time PhD concerning orphan drugs and the value of rarity. Sharon Hadley joins CHEME as a staff candidate undertaking a PhD in the Health Economics of mindfulness in the workplace. Huw Lloyd-Williams is a staff candidate, undertaking a PhD on the relationship between poverty and poor health using national panel data.

VACANCIES

Applications are invited for a PhD studentship in adherence research. This full-time, 3-year studentship provides full support for tuition fees (for UK/EU nationals), all associated research costs and a tax-free stipend of £13,590 in the first year, with annual increments thereafter.

This PhD will relate to aspects of medication adherence, including: defining core outcome measures for adherence studies, labelling instructions

for missed doses, and an assessment of treatment forgiveness. For further information please contact Dyfrig Hughes (Email: d.a.hughes@bangor.ac.uk)

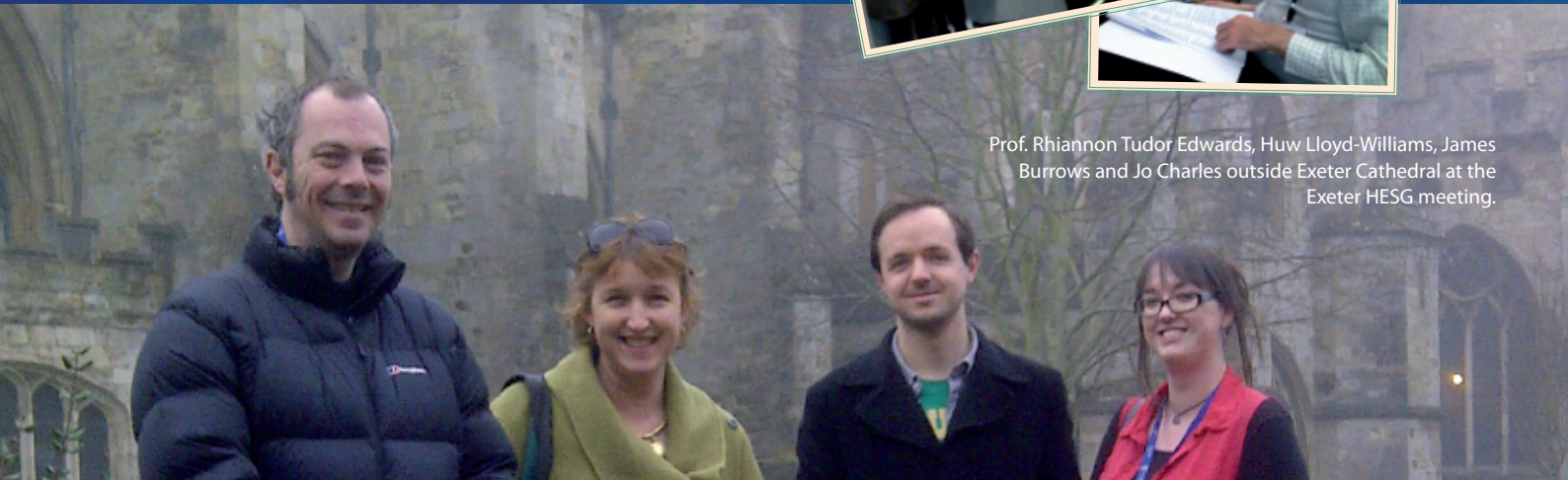
NEW FUNDING

Dyfrig Hughes was recently successful, as principal health economist investigator, with two research applications:

- A £4.5m award from the Health Innovation Challenge Fund (funded jointly by the Wellcome Trust and the Department of Health), and led by Professor Sarah O'Brien of the University of Liverpool, to modernise the approach to surveillance of gastroenteritis outbreaks; and
- A £2m award from the NIHR HTA programme for the British Antibiotic and Silver Impregnated Catheters for ventriculoperitoneal Shunts multi-centre randomised controlled trial (the BASICS trial), led by Mr Conor Mallucci at Alder Hey Children's Hospital.



(right) Prof. Rhiannon Tudor Edwards, Jo Charles, Public Health Wales Consultant Dr. Sikha De Souza and (far right) Huw Lloyd-Williams presenting at Public Health Science: A national conference dedicated to new research in public health held in London by the Royal Society of Medicine and The Lancet.



Prof. Rhiannon Tudor Edwards, Huw Lloyd-Williams, James Burrows and Jo Charles outside Exeter Cathedral at the Exeter HESG meeting.

STAFF NEWS

CHEME would like to wish Dr. Barry Hounsome every success in his new post as Trial Manager at University College London; and Pat Linck a happy retirement after more than thirteen years at our research institute.

We would like to welcome Huw Lloyd-Williams who joined CHEME in September as a Health Economics Methodologist (funded by NISCHR)

and Dr. Paul Parham, who will soon be joining the Centre as a Post-Doctoral Research Officer in Mathematical Modelling. Two students on internships have also joined CHEME; Mathew Robson, an MSc student from Bangor University's Economics and Finance Department and Joseph Rylands a 5th year medical student from Cardiff University. Congratulations to Carys Jones and Joshua Pink for submitting their PhD theses, to our PhD student Nathan Bray for submitting his MSc

thesis in Healthcare Sciences, and to Angela Jones who was on placement from Sheffield University, for gaining her MSc in Health Economics and Decision Modelling. Congratulations to Rhiannon Tudor Edwards for gaining her level 5 Certificate in Coaching and Mentoring in Management from the Institute of Leadership and Management; and to Dyfrig Hughes who has been elected to serve on the Clinical Pharmacology Section Committee of the British Pharmacological Society.



(Right) Prof. Dyfrig Hughes contributing to the Expert's Round Table Discussion on Patient Adherence and Compliance, Healthcare Compliance Packaging Council, Madrid, Oct 2012



RECENT PRESENTATIONS

- ✿ Rhiannon Tudor Edwards and Jo Charles presented "Public Health Review of a Ministerial National Health Improvement Programme: A Programme Budgeting and Marginal Analysis (PBMA) Methodology, Wales UK" at the HESG meeting, Exeter, Jan 2013.
- ✿ Dyfrig Hughes gave a presentation on "Pharma: Friend or foe?" at the Welsh Health Economics Group meeting, Bangor, Dec 2012.
- ✿ Emily Fargher gave a presentation on "Behavioural economics to understanding persistence with medications" at the 8th Annual Scientific Meeting of the UK Society for Behavioural Medicine, Manchester, Dec 2012.
- ✿ Lucy Bryning and Ned Hartfiel gave a presentation on "Exploring economic models for preventing ill health" at the Welsh Health Economics Group meeting, Bangor, Dec 2012.
- ✿ Colin Ridyard gave a presentation on "A systematic review of patient preferences for subcutaneous medications" at the Welsh Health Economics Group meeting, Bangor, Dec 2012.
- ✿ Emily Fargher gave a presentation on "Preferences for stroke services in Wales at the Welsh Health Economics Group meeting, Bangor, Dec 2012.
- ✿ Rhiannon Tudor Edwards, Jo Charles and Public Health Wales colleagues presented "Use of Health Economics and Programme Budgeting and Marginal Analysis (PBMA) at a National Level to Prioritise Public Health Improvement Programmes in Wales" and "Modeling the Public Health effects of smoking in pregnancy in Wales" at Public Health Science: A national conference dedicated to new research in public health held in London by the Royal Society of Medicine and The Lancet, London, Nov 2012.
- ✿ Dyfrig Hughes gave a presentation as an invited speaker on "Cost effectiveness of pharmaceuticals and health technologies" at the Microbiology and Infection Translational Research Group, Swansea, Nov 2012.
- ✿ Dyfrig Hughes was also an invited speaker at the Department of Health workshop on value-based pricing hosted by NICE, Manchester, Nov 2012, and presented on research from Warren Linley's PhD studies on: "Bangor survey on value-based pricing (and other) criteria".
- ✿ Dyfrig Hughes gave a presentation on "Economic evidence – calculating plausible ICERs" at the AWMSG Masterclass hosted by ABPI Cymru Wales, Cardiff, Oct 2012
- ✿ Dyfrig Hughes chaired a session on the "Clinical and economic consequences of non-adherence"

at the European Society for Patient Adherence, COMpliance, and Persistence (ESPACOMP) conference, Ghent, Belgium, Oct 2012

- ✿ Dyfrig Hughes presented "The journey to sustainable and widespread improvement – medicines matter" at a Cardiff Joint Medicines Management & All Wales Chief Pharmacists event in Sept 2012.
- ✿ Dyfrig Hughes gave a presentation on "New medicines—Are they value for money?" at Ysbyty Gwynedd, Bangor, Sept 2012.

RECENT PUBLICATIONS

- ✿ Jorgensen AL, Hughes DA, Hanson A, van Eker D, Toh CH, Pirmohamed M, Williamson PR. Adherence and variability in warfarin dose requirements: assessment in a prospective cohort. *Pharmacogenomics*. 2013 Feb;14(2):151-63.
- ✿ Charles JM, Edwards RT, Bywater T, and Hutchings, J. Micro-costing in public health economics: steps towards a standardised framework, using the Incredible Years Toddler Parenting Programme as a worked example. *Prev Sci*. 2013 Jan 11. DOI 10.1007/s11121-012-0302-5
- ✿ Woods R, Bruce E, Edwards R T, Elvish R, Hoare Z, et al. REMCARE: reminiscence groups for people with dementia and their family caregivers - effectiveness and cost-effectiveness pragmatic multicentre randomised trial. *Health Technol Assess*. 2012 Dec;16(48):1-121.
- ✿ Pirmohamed M, Hughes DA. Pharmacogenetic tests: the need for a level playing field. *Nat Rev Drug Discov*. 2012 Dec 31;12(1):3-4.
- ✿ Faulkner E, Annemans L, Garrison L, Helfand M, Holtorf AP, Hornberger J, Hughes D, Li T, Malone D, Payne K, Siebert U, Towse A, Veenstra D, Watkins J; Personalized Medicine Development and Reimbursement Working Group. Challenges in the Development and Reimbursement of Personalized Medicine-Payer and Manufacturer Perspectives and Implications for Health Economics and Outcomes Research: A Report of the ISPOR Personalized Medicine Special Interest Group. *Value Health*. 2012 Dec;15(8):1162-71.
- ✿ Hartfiel N, Burton C, Rycroft-Malone J, Clarke G, Havenhand J, Khalsa SB, and Edwards RT. Yoga for reducing perceived stress and back pain at work. *Occup Med (Lond)*. 2012 Dec;62(8):606-12
- ✿ Jones C, Edwards RT, Hounsborne B. Health economics research into supporting carers of people with dementia: A systematic review of outcome measures. *Health and Quality of Life Outcomes*. 2012 Nov, 10:142.
- ✿ Linley WG, Hughes DA. Societal views on NICE, Cancer Drugs Fund and Value-Based Pricing criteria for prioritising medicines: A cross-sectional survey of 4118 adults in Great Britain. *Health Econ*. 2012 Sep 7. doi: 10.1002/hec.2872.
- ✿ Verhoef TI, Redekop WK, van Schie RM, Bayat S, Daly AK, Geitona M, Haschke-Becher E, Hughes DA, Kamali F, Levin LA, Manolopoulos VG, Pirmohamed M, Siebert U, Stingl JC, Wadelius M, de Boer A, Maitland-van der Zee AH; EU-PACT group. Cost-effectiveness of pharmacogenetics in anticoagulation: international differences in healthcare systems and costs. *Pharmacogenomics*. 2012 Sep;13(12):1405-17.
- ✿ Ridyard CH, Hughes DA; DIRUM Team. Development of a database of instruments for resource-use measurement: purpose, feasibility, and design. *Value Health*. 2012 Jul-Aug;15(5):650-5.
- ✿ Margrain TH, Nollett C, Shearn J, Stanford M, Edwards RT, Ryan B, Bunce C, Casten R, Hegel MT, Smith DJ. The Depression in Visual Impairment Trial (DEPVIT): trial design and protocol. *BMC Psychiatry*. 2012 Jun 6;12(1):57.