Centre For Health Economics

Health Economics *News*

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Welcome to the CHE Newsletter

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inside this issue...

2	Paying for hospital care: the European experience

- 2 Is competition good for your health?
- 2 Which hospital improves which aspects of patients' health?
- **3** Cost-effectiveness in Chronic Fatigue Syndrome
 - Staff news/presentations
- **3** New funding
 - Courses and workshops
- **4** Publications

Latest CHE Research Papers

CHERP 82

Does a hospital's quality depend on the quality of other hospitals? A spatial econometrics approach to investigating hospital quality competition -Hugh Gravelle, Rita Santos, Luigi Siciliani www

CHERP83

Expected health benefits of additional evidence: principles, methods and applications - Karl Claxton, Susan Griffin, Hendrik Koffijberg, Claire McKenna

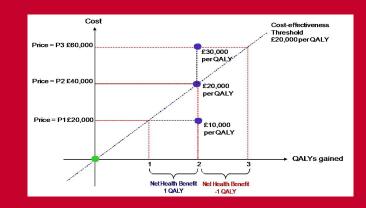


Estimating the cost-effectiveness threshold for NICE

Researchers: Karl Claxton, Marta Soares, Nigel Rice, Eldon Spackman, Sebastian Hinde, Mark Sculpher, (CHE), Steve Martin (York), Nancy Devlin (OHE), Peter C Smith (Imperial College)

A study by CHE has produced, for the first time, an estimate of the impact on other NHS patients of introducing new and more costly drugs and treatment for patients. This research suggests a refinement of the way the National Institute for Health and Care Excellence (NICE) gauges the cost-effectiveness of new interventions. It also has implications for the prices that the NHS can afford to pay for new drugs when the value-based pricing scheme for all new drugs is introduced by the Government in 2014. The project was funded by the Medical Research Council Methodology Research Programme to establish methods that can estimate the cost-effectiveness threshold for NICE using routinely available data.

Since 2004 NICE has used a threshold range of £20,000 to £30,000 per QALY. It has been widely recognised for many years that this range is not based on evidence. The researchers at York have estimated a more accurate threshold to be £18,317 per QALY (based on 2008 expenditure). The analysis quantifies the additional deaths, life years lost and the impact on quality of life of those with different types of disease as a result of the introduction of new products. CHE Research Paper 81 can be found on our website at:



Graph showing illustration of the NICE threshold as a basis for assessing net health benefit

Paying for hospital care: the European experience

Research team: James Gaughan, Anne Mason, Andrew Street, Padraic Ward

Driven by the need to incentivise hospitals to improve their performance, the adoption of diagnosisrelated group (DRG)-based hospital payment systems has been widespread. But we know little about the effects of these systems or



their optimal design features. In addition, the European Union (EU) Directive on the Application of Patients' Rights in Cross-Border Healthcare presupposes a system for paying hospitals in one EU Member State for care provided to patients from another Member State which requires a common price.

The EuroDRG project involved partners from 12 countries: Austria, England, Estonia, Finland, France, Germany, Ireland, Netherlands, Poland, Portugal, Spain and Sweden. Its aims were to compare country-specific features of the DRG systems; to investigate their costs, efficiency and quality; to explore the scope for harmonization of European DRG systems; and to encourage the approach in non-European countries, such as China, Korea and Russia. Project outputs include a supplement of the journal '<u>Health Economics</u>' and a <u>book</u>.

Is competition good for your health?

Research team: Hugh Gravelle, Rita Santos, Luigi Siciliani and Rosalind Goudie

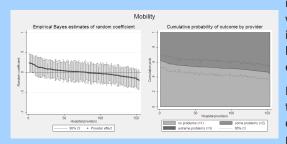
The relationship between the quality of health care and the extent of competition amongst providers has been the subject of intense policy interest and debate. We are undertaking a set of related investigations into this relationship in the hospital sector, in primary care, and in social care. In our initial phase of work on competition amongst hospitals, we have reviewed the theoretical and empirical literature on competition and quality and examined the correlations amongst 16 quality measures and their crosssectional associations with distance based measures of competition. In general, mortality based quality measures are not well correlated with measures of the quality of elective care or with measures based on patient experience. We also found a negative association between competition and some mortality indicators but not others, a positive association between competition and some readmission rates but not others, and a negative association between competition and patients' satisfaction. Further investigation of these initial findings is underway in order to improve the evidence base for policy-makers.

Full report can be found at: www

Which hospital improves which aspects of patients' health most after hip replacement surgery?

Research team: Nils Gutacker, Chris Bojke, Silvio Daidone, Andrew Street, (CHE), Nancy Devlin, (OHE)

The English NHS routinely collects health status measures for all patients before and after undergoing one of four common surgical procedures in order to assess hospital quality performance. Health-related quality of life (HRQoL) encompasses



many dimensions such as pain, mobility, and mental health. Due to variations in clinical quality, it is likely that hospitals achieve a different improvement on each of these elements. Yet standard methodology bundles these dimensions into aggregate health index scores when examining variation across patients and hospitals.

Researchers from CHE and OHE have developed statistical methods to study variation in the dimensions of the EQ-5D, a generic measure of HRQoL, across hospitals and have applied these to the case of patients undergoing hip replacement surgery. The study, published in *Medical Decision Making*, demonstrates how rich data collected on

patient health status can be exploited fully in order to identify variation in performance between hospitals and study its determinants. The research is useful for hospital providers and clinical commissioning groups that seek to improve the quality of care provided, and patients who want to understand the likely impact of surgery on their health.

Further details: www

Assessing cost-effectiveness for patients with Chronic Fatigue Syndrome

Research team: Gerry Richardson and David Epstein from CHE collaborated with clinical colleagues at the Universities of Manchester, Liverpool and Nottingham

The research team assessed the cost-effectiveness of supported self-management for CFS/ME patients in primary care. This randomised controlled trial compared three treatment strategies for the management of Chronic Fatigue Syndrome (CFS) namely: Pragmatic Rehabilitation (PR, based on Graded Exercise Therapy), Supportive Listening (SL, based on a counselling approach) and treatment as usual (TAU). Both PR and SL were delivered by primary care nurses while TAU was delivered by the General Practitioner. While previous work had pointed to the potential beneficial effects of PR, the work conducted in this study showed that there were unlikely to be any quality of life benefits associated with PR or SL. In addition both PR and SL were associated with considerable additional costs and neither PR nor SL were likely to be cost-effective options for this patient population in this setting. Journal article here:

Staff news, conference and workshop presentations

The winter Health Economists Study Group meeting took place in Exeter on 9-11 January. CHE staff participated in all conference activities, writing papers, acting as discussants and chairing sessions. Centre staff who attended included Andrew Street, Katja Grasic, Hugh Gravelle, Richard Cookson, Miqdad Asaria, Panos Kasteridis, Giuseppe Moscelli, Nils Gutacker, Tony Culyer and Irene Sanchez.

A new book was published in February co-edited by Luigi Siciliani and Valerie Moran with Michael Borowitz entitled Waiting Time Policies in the Health Sector, What Works? Further details: www

In March, **Andrea Manca** participated in and gave a talk at the MRC Population Cohort Strategy Workshop, an event aimed to explore scientific and translational opportunities for the UK population cohorts. He was also an invited member of the MRC panel which assessed a UK wide consortium grant on stratified medicine in type 2 diabetes.

Anne Mason gave a presentation on 'Is higher primary care quality associated with lower hospital admissions for people with severe mental illness?' at the Primary Care Mental Health Conference, University of Manchester on 20 March.

In April, **Mike Drummond, Andrea Manca and Cynthia Iglesias** taught a 3-day course titled 'Introduction to Economic Evaluation' at the Ministry of Health in Croatia funded by the World Bank.



James Lomas and Dan Howdon were both

awarded an Aronson Teaching Prize, by the Department

of Economics, University of York for their work as

Teaching Fellows on Microeconomics II. It was voted 'Best Designed Module, 2nd Year' for 2011-2012, in response to a survey of students by course representatives. In particular, they praised the innovative classroom games and level of expertise of Teaching Fellows.

Tony Culyer has been autographing copies of his book The Humb Economist, edited by Richard Cookson and Karl Claxton, at various launches in London, Linkoping (Sweden) and York. He chaired a joint meeting of the Global Fund for Health, the Rockefeller Foundation and NICE in London on 9 February. He was a one-person 'panel' responding to three Swedish PhD students who quizzed him about The Humble Economist at the annual conference of the Swedish Health Economists' Association in March, and gave a speech honouring Sir Mike Rawlins on the occasion of a retirement celebration of his leadership as chair of NICE at the Royal College of Physicians on 20 March.

New funding

ICON 8 Mark Sculpher 10 July 2012 - 30 April 2017 Funder: Cancer Research UK



Removal of treatment for patients in remission in psoriatic arthritis feasibility study (RETREAT) Laura Bojke & Claire McKenna (Collaborating with Health Sciences) 1 Sept 2012 - 31 Aug 2013 Funder: Arthritis Research UK

Adjunctive Rifampicin to Reduce Early mortality from Staphylococcus aureus bacteraemia: a multi-centre, randomised, blinded, placebo trial (ARREST)

Marta Soares (Collaborating with Kings College London) 1 Oct 2012 - 30 June 2016 Funder: NIHR HTA

Healthy & Active Parenting Programme for Early Years (HAPPY Study) **Gerry Richardson** (Collaborating with Bradford Teaching Hospitals NHS Foundation Trust) 1 March 2012 - 30 April 2014 Funder: NIHR Programme Grant

Information and Value Based Commissioning **Martin Chalkley** (Collaborating with University of Oxford) 1 Jan 2013 - 31 Dec 2015 Funder: NIHR SDO

Courses and workshops

York expert workshops in the socio economic evaluation of medicines www Quality of Life Workshop - Wednesday 19 June - Friday 21 June 2013 Foundations Workshop - Monday 24 June -Friday 28 June 2013 Advanced Workshop - Monday 1 July - Friday 5 July 2013 Analysing patient-level data using hospital

Analysing patient-level data using hospital episode statistics (HES) www 26-28 November 2013 Bes RE, **Van den Berg B**. Ranking sources of hospital quality information for orthopedic surgery patients: consequences for the system of managed competition. *The Patient* - *Patient-Centered Outcomes Research*, 2013;doi:10.1007/s40271-013-0011-6.

Blickem C, Blakeman T, Kennedy A, Bower P, Reeves D, Gardner C, Lee V, Chew-Graham C, **Richardson G**, Brooks H, Dawson, S, Mossabir R, Jariwala, P, Swallow A, Kontopantelis E, Gaffney H, Small N, **Spackman E**, Rogers A. The clinical and cost-effectiveness of the BRinging Information and Guided Help Together (BRIGHT) intervention for the selfmanagement support of people with stage 3 chronic kidney disease in primary care: study protocol for a randomized controlled trial. *Trials* 2013;14(1):28.

Bojke C, Castelli A, Street AD, Ward P, Laudicella M. Regional variation in the productivity of the English National Health Service. *Health Economics* 2013 Feb 15;22(2):194-211.

Cookson RA, Laudicella M, Li Donni P. Does hospital competition harm equity? Evidence from the English National Health Service. *Journal of Health Economics* 2013;32(2):410-422.

Edlin R, McCabe C, Round J, Wright J, **Claxton K, Sculpher M, Cookson R**. Understanding Harris' understanding of CEA: is cost effective resource allocation undone? *Journal of Health Services Research and Policy*. 2013;18(1):34-9.

Eldabe S, Raphael J, Thomson S, **Manca A**, de Belder M, Aggarwal R, Banks M, Morag B, Merotra S, Adeniba R, Davies E, Taylor RS. The effectiveness and cost-effectiveness of spinal cord stimulation for refractory angina (RASCAL study): study protocol for a pilot randomized controlled trial. *Trials* 2013;14(57).

Faria R, Manca A. Statistical analysis of clinical trial data for resource allocation decisions. Durlauf SN, Blume LE, editors. In: *The New Palgrave Dictionary of Economics Online*. Palgrave Macmillan. 2013.

Faria R, McKenna C, Wade R, Yang H, Woolacott N, Sculpher M. The EOS 2D/3D X-ray imaging system: A cost-effectiveness analysis quantifying the health benefits from reduced radiation exposure. *European Journal of Radiology* 2013;doi.org/10.1016/j. ejrad.2013.

Favato G, Baio G, Capone A, Marcellusi A, Costa S, Garganese G, Picardo M, **Drummond M**, Jonsson B, Scambia G, Zweifel P, Mennini F. Transparency or proper study valuation procedures missed? *Medical Care*. 2013;51(4):374-378. Grutters JPC, **Sculpher MJ**, Briggs AH, Severens JL, Candel MJ, Stahl SE, De Ruyssche D, Boer A, Ramaekers BLT, Joore MA. Acknowledging patient heterogeneity in economic evaluation. A systematic literature review. *Pharmacoeconomics*. 2013;31(2):111-23.

Howard J, Malfroy M, Llewelyn C, Choo L, Hodge R, Johnson T, Purohit S, Rees D, Tillyer L, Walker I, Fijnvandraat K, Kirby-Allen M, **Spackman E**, Davies S, Williamson L. The transfusion alternatives preoperatively in sickle cell disease (TAPS) study: a randomised controlled multi-centre clinical trial. *The Lancet* 2013;381(9870):930-938.

Husereau D, **Drummond M**, Petrou S, Carswell C, Mother D, Greenberg D, Augustovski F, Briggs AH, Mauskopf J, Loder E. Consolidated Health Economic Evaluation Reporting Standards (CHEERS) statement. *British Medical Journal* 2013;Mar25:346. f1049.

Longworth L, Youn J, **Bojke L, Palmer S, Griffin S, Spackman E, Claxton, K**. When does NICE recommend the use of health technologies within a programme of evidence development? : A systematic review of NICE guidance. *Pharmacoeconomics* 2013;31(2):137-49.

Mason A, Mason J, Cork M, Dooley G, Hancock H. Topical treatments for chronic plaque psoriasis. *Cochrane database of systematic reviews (Online)* 2013 Mar 28;(3) Art No CD005028.

Naci H, **Spackman E**. National approaches to comparative effectiveness research. In: *Handbook of Health Services Research*. Springer 2013.

Norman R, Church J, **van den Berg B**, Goodall S. Australian health-related quality of life population norms derived from the SF-6D. *Australian and New Zealand Journal of Public Health* 2013;37(1):17-23.

Richardson G, Epstein D, Chew-Graham C, Dowrick C, Bentall RP, Morriss RK, Peters S, Riste L, Lovell K, Dunn G, Wearden AJ. Costeffectiveness of supported self-management for CFS/ME patients in primary care. *BMC Family Practice* 2013;14(12).

Sampson C, Whitehurst D, **Street AD**. Do patients registered with CAM-trained GPs really use fewer health care resources and live longer? A response to Kooreman and Baars. *European Journal of Health Economics* 2013;doi10.1007/s10198-013-0466-3.

Sculpher MJ. Methods development for health technology assessment: is it time to set priorities? *Medical Decision Making* 2013;33(3):313-5. **Siciliani L,** Borowitz M, **Moran V.** Waiting time policies in the health sector, what works? OECD Publishing 2013.

Siciliani L, Sivey P, **Street A**. Differences in length of stay for hip replacement between public hospitals, specialised treatment centres and private providers: selection or efficiency? *Health Economics* 2013;22(2):234-242.

Smith PC, **Street AD**. On the uses of routine patient-reported health outcome data. *Health Economics* 2013;22(2):119-131.

Spackman E, Kadiyala S, Neumann PJ, Veenstra DL, Sullivan SD. The validity of dependence as a health outcome measure in Alzheimer disease. *American Journal of Alzheimer's Disease & Other Dementias* 2013; doi:10.1177/1533317513481092.

Spackman E, Rice S, Norman G, Suh D-C, Eastwood A, **Palmer S**. Trastuzumab for the treatment of HER2-positive metastatic gastric cancer: A NICE single technology appraisal. *Pharmacoeconomics* 2013; 31(3):185-194.

Spinner D, Birt J, Walter J, Bowman LLB, Mauskopf J, **Drummond M**, Copley-Merriman C. Do different clinical evidence bases lead to discordant health-technology assessment decisions? An in-depth case series across three jurisdictions. *ClinicoEconomics and Outcomes Research* 2013;5:69-85.

Van Dijk CE, **Van den Berg B**, Verheij RA, Spreeuwenberg P, Groenewegen PP, De Bakker DH. Moral hazard and supplierinduced demand: empirical evidence in general practice. *Health Economics* 2013;22(3):340-352.

Walker S, Girardin F, McKenna C, Ball SG, Nixon J, Plein S, Greenwood JP, Sculpher M. Cost-effectiveness of cardiovascular magnetic resonance in the diagnosis of coronary heart disease: an economic evaluation using data from the CE-MARC study. *Heart* 2013;doi:10.1136/heartjnl-2013-303624.

CHE's Annual Report

The CHE 2012 annual report is available to download from our website



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