

International comparison shows mixed results for UK health care

The UK can and should do better in preventing unnecessary hospital admissions and improving survival from heart attacks and strokes, reveals a new report comparing performance across high-income countries.

Focus on: international comparisons of healthcare quality, published by the Nuffield Trust and the Health Foundation (2015), compares the quality of care in the UK health system with that of similar countries over time.

The UK's performance has improved on almost every measure since the start of the millennium, but it lags behind most other countries in areas including higher rates of preventable hospital admissions, lower cancer survival and higher mortality rates from heart attacks and strokes.



screened for breast cancer over the period, compared to fewer than 60% in Australia. Cervical screening rates are also high, although these have recently deteriorated in the UK. However, the UK lags behind other countries on survival rates for breast, cervical and bowel cancers.

The report is based on analysis of 27 care quality indicators in up to 15 OECD countries between 2000 and the last year for which data are comparable (usually 2011 or 2012). The indicators examined present a broad look at health system performance across primary care, hospital care and highly specialist care, such as for cancer. Taken together they offer a starting point for much-needed work to understand better the reasons for variation between countries.

While the authors point out the value in using international data to ask better questions about the quality of health services, they warn that data limitations make meaningful comparisons difficult.

Commenting on the report, Nuffield Trust Chief Executive Nigel Edwards said: 'Interpreting international data on healthcare systems is notoriously tricky, and any comparisons should be handled with care. However, it is clear from this analysis that the UK can and should do better.'

The UK performs better than other countries in achieving high flu vaccination rates and lower antibiotic prescribing rates, suggesting a well-functioning primary care system. But rates of potentially preventable hospital admissions for chronic respiratory conditions, including asthma and lung diseases, remain relatively high in the UK.

Rob Webster, chief executive of the NHS Confederation, said: 'This useful piece of research highlights some of the real achievements made by the NHS in recent times... The report shows the UK has improved on almost every measure and is testament to the hard work being done by health and care staff across the NHS.'

The UK has made headway in reducing mortality from heart attacks in recent years, but still lags behind the five other countries where data are available.

Mr Webster continued: 'The report also highlights areas where we can and must do better – not least around survival rates for common cancers. This may be a problem with late presentation and lifestyle factors – as shown in many director of public health reports across the UK.'

Severely injured patients do better in high volume hospitals

An analysis of the TraumaRegister of the German Trauma Society, conducted by a team of investigators at Klinikum rechts der Isar university hospital, Technical University of Munich (Zacher et al, 2015), has found a connection between the annual patient volumes and mortality in German trauma hospitals.

A total of 39 289 severely injured patients from 587 hospitals in Germany were included in the study. Of these hospitals, 98 were supra-regional level I, 235 regional level II and 254 local level III trauma centres. The overall mortality of the 39 289 multiply injured patients was 18.9%.

Within subgroups with more than 40 patients per year (high volume hospitals), no statistically significant difference was found between the observed and the expected mortality.

Within the subgroups with 1–19 and 20–39 patients per year (low volume hospitals), the observed mortality

was significantly higher than the expected mortality; the associated prognosis was therefore less favourable.

Hospitals with higher case numbers (>40) had an absolute difference of the observed *vs* the expected mortality of around plus 1%. Therefore they are associated with a more favourable prognosis for their patients than hospitals with lower case numbers of less than 40 per year.

According to Dr Stefan Huber-Wagner, Associate Professor in the Department of Trauma Surgery at Klinikum rechts der Isar, 'the aim of the current debate is to further improve treatment quality in German trauma centres. For this purpose, the gained insights can contribute to the structural planning of trauma hospitals and dispatch centres in the future.'

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Zacher MT, Kanz KG, Hanschen M et al, and the TraumaRegister DGU® (2015) Association between volume of severely injured patients and mortality in German trauma hospitals. *Br J Surg* (doi: 10.1002/bjs.9866)

International guidelines launched for treatment of idiopathic pulmonary fibrosis

Updated guidelines on the treatment of idiopathic pulmonary fibrosis have been released by an international group of leading respiratory societies (Raghu et al, 2015).

Dr Ganesh Raghu, Professor of Medicine, University of Washington, director of the Center for Interstitial Lung Disease, UW Medicine at the University of Washington Medical Center, and chair of the committee that produced the guidelines, emphasized that: 'The updated guidelines

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do not recommend one treatment regimen over another. All of these recommendations must be weighed individually, considering all the factors used to grade each one, including the confidence in effect estimates, evidence from outcomes studies, desirable and undesirable consequences of treatment, treatment costs, the implications of treatment on health equity, and the feasibility of treatment'.

The following recommendations are new or revised from the 2011 guidelines:

The recommendation against the use of anticoagulation (warfarin), imatinib, a selective tyrosine kinase inhibitor against platelet-derived growth factor receptors, combination prednisone, azathioprine, and N-acetylcysteine, and selective endothelin receptor antagonist (ambrisentan) for the treatment of idiopathic pulmonary fibrosis is strong.

The recommendation for the use of nintedanib (a tyrosine kinase inhibitor) and pirfenidone for the treatment of idiopathic pulmonary fibrosis is conditional.

The recommendation against the use of sildenafil and dual endothelin receptor antagonists (macitentan, bosentan) for the treatment of idiopathic pulmonary fibrosis is conditional.

Recommendations remaining unchanged from the 2011 guidelines include a conditional recommendation against the use of N-acetylcysteine monotherapy for idiopathic pulmonary fibrosis and a conditional recommendation for the use of antiacid therapy.

Raghu G, Rochweg B, Zhang Y et al, on behalf of the ATS, ERS, JRS, and ALAT (2015) An Official ATS/ERS/JRS/ALAT Clinical Practice Guideline: Treatment of Idiopathic Pulmonary Fibrosis. An Update of the 2011 Clinical Practice Guideline. *Am J Respir Crit Care Med* **192**(2): e3–e19 (doi: 10.1164/rccm.201506-1063ST)

First lung cancer treatment approved through Early Access to Medicines Scheme

The Medicines and Healthcare products Regulatory Agency has adopted a positive scientific opinion under the Early Access to Medicines Scheme for the investigational PD-1 (programmed death-1) immune checkpoint inhibitor, nivolumab. It is a treatment option for locally advanced or metastatic squamous non-small cell lung cancer after prior chemotherapy in adults.

Edoxaban available to treat venous thromboembolism and atrial fibrillation

Edoxaban, an oral, once-daily, direct factor Xa inhibitor, has been licensed for prevention of stroke and systemic embolism in adult patients with non-valvular atrial fibrillation and for treatment and prevention of recurrence of venous thromboembolism.

Risk score developed for life expectancy of hospital patients

Researchers at the MedUni Vienna have developed the world's first prognosis scoring system (PANDORA score) for hospital patients and their life expectancy within the next 30 days (doi:10.1371/journal.pone.0127316).

Total knee arthroplasty less effective for rheumatoid arthritis than osteoarthritis

A study assessing the effects of total knee replacement in rheumatoid arthritis patients *vs* osteoarthritis patients found that the surgery is highly effective in reducing knee pain and also has benefits in quality of life indices in patients with rheumatoid arthritis (Dusad et al, 2015). However, improvements were not as great as those experienced by patients with osteoarthritis.

Rheumatologist-diagnosed arthritis patients undergoing primary total knee arthroplasty during 1999–2012 were identified.

Indices of pain and health-related quality of life were obtained in three consecutive 6-month intervals: preoperative (baseline), perioperative and postoperative (recovery).

Of the participating 18 897 patients, 834 with rheumatoid arthritis (5.3%) and 315 with osteoarthritis (10.2%) had undergone index total knee arthroplasty at similar mean ages (65 and 68 years). Post total knee arthroplasty, significant improvements were observed for most domains of pain, function and quality of

life within both groups, with greater impact in patients with osteoarthritis.

Total knee arthroplasty is highly effective in reducing clinically relevant knee pain in patients with rheumatoid arthritis, although this improvement is less marked than for osteoarthritis patients.

Dusad A, Pedro S, Mikuls TR, Hartman CW, Garvin KL, O'Dell JR, Michaud K (2015) Impact of total knee arthroplasty using patient reported pain and health-related quality of life indices: Rheumatoid arthritis versus osteoarthritis. *Arthritis Rheumatol* (doi: 10.1002/art.39221)