

Service Improvement - Closing the Gap

The UK Renal Registry's Annual Reports provide information on the performance of each renal centre on a number of measures of the quality of care, including dialysis dose (for haemodialysis), correction of anaemia, blood pressure, control of serum calcium, phosphate, and parathyroid hormone, and correction of acidosis. (The Reports also contain centre-specific analyses of survival after adjustment for age, but because inadequate data returns make it impossible to adjust adequately for case-mix, these cannot be taken as a measure of quality of care).

One of the striking findings from looking at these Reports year on year is that performance against these measures of quality is a stable characteristic of a centre; a centre that is towards the bottom of the 'league table' for a given measure one year is highly likely to be at the same position the next year and the year after, although for another measure the same centre may routinely occupy a position near the top of the league table. This stability of results, despite a constant turnover of staff and patients, demonstrates the 'First Law of Improvement': that the results achieved in a given centre are the result of the **systems** in place to achieve those results, rather than the individuals operating the systems. The 'system' is the way care is organised, and can be broken down into 'structure' and 'process'.

The main challenge for conventional audit has been to complete the audit cycle, and to act on the results of audits that show less-than-perfect performance so as to improve the results in the next cycle. The UKRR's main purpose is to improve the quality of care for patients with kidney disease, and so it faces a similar challenge. However, we have the advantage that we should be able to learn from high-performing centres and spread that learning to others. That sounds easy, but we have learnt that it is more difficult than it sounds. High-performing centres may themselves not know what the 'recipe' for their success is, because they don't know how other centres organise their care, and because they may do a range of things differently without knowing which of these is responsible for their results. Studying variation in care processes requires, first, a qualitative study in a range of selected centres where the outcomes are good, intermediate, or poor; followed by a quantitative study in which the relationship between candidate practices and outcomes is tested statistically, after adjustment for differences in case-mix between centres.

Using these techniques, we have recently studied variation in achievement of good phosphate control. Several factors were found to be associated with a high proportion of patients with serum phosphate within the target range; regular audit meetings were not amongst these factors, but the way in which nephrologists organised their care of dialysis patients was.

We hope to use these findings to generate a 'change package' that centres with sub-optimal performance could adopt to change their system of care for the benefit of their patients and to close the gap between their performance and that of the best.