Driving performance improvement

The FTN orthopaedic benchmarking project

This briefing provides an overview of a Foundation Trust Network (FTN) orthopaedic benchmarking project carried out earlier this year with McKinsey support.

Working with a small group of authorised and aspirant foundation trusts, the project aimed to develop a robust benchmarking methodology to analyse costs at HRG level, to understand the reasons for performance and productivity differences, and to identify improvement opportunities.

The FTN is keen to share the lessons of this collaboration and to set up similar benchmarking clubs in the autumn of 2006 based on expressions of interest from Network members.

Introduction

The idea of running a benchmarking project was first explored at an FTN chief executives’ seminar on performance management in September 2005. This underlined the potential role of benchmarking in helping foundation trusts to understand their cost base and compare operational practices in order to have performance conversations based on credible data and insights from best practice.

As a result, the FTN approached its members about setting up a benchmarking club. Seven signed up to take part in this initial collaboration. The Hospital for Special Surgery (HSS), a leading US specialty orthopaedic hospital, also contributed its learning about how to deliver high quality care whilst driving down costs.

The FTN joined forces with McKinsey, who worked with participating trusts to define the methodology, analyse the data collected and to facilitate discussions about opportunities for performance improvement.

Key points

- The Foundation Trust Network has teamed up with McKinsey to develop a new benchmarking methodology, using orthopaedics as the pilot speciality.
- The aim is to drill down to understand each trust’s cost base at HRG level, and to review the operational practices which underpin performance and cost differences.
- 7 trusts gathered data over a two month period both at departmental level, and by focusing on three HRGs. Three key drivers of cost differences were highlighted: theatre utilisation, average length of stay and prosthetic costs.
- Trusts could save a total of between £150k and £1m a year for the 3 HRGs by improving their performance to the benchmarking best. If similar savings were replicated across the whole trauma and orthopaedic department, the 7 trusts could collectively save around £16m a year.
The process

An introductory workshop was held in January 2006 with potential participants before the project started in earnest the following month. The data gathering and analysis took place during an intensive 8 week period to ensure participants were quickly in a position to move to action.

Teams were established in each trust to work on the project, including an executive board sponsor, a clinical lead, service manager and information analyst.

The benchmarking consisted of 3 stages:

• a first stage focused on comparing data for all trauma and orthopaedic work, including case mix, income per spell, departmental margins, spells per FTE doctor and occupied bed days per FTE nurse;

• we then focused on comparing performance for 3 high-volume HRGs – primary knee, primary hip and arthroscopy, to reduce the impact of case mix on the analysis. This covered elective in-patient spells only given the likelihood that different performance levers would be needed for non-elective work;

• a final stage based on interviews with service managers and a number of clinicians to gather more detail on different clinical and operational practices, linked to an analysis of theatre utilisation in four trusts to better understand the HRG findings.

A stated objective of the benchmarking process was to develop the capacity of participants to understand and review costs.

As part of the benchmarking, trust finance analysts were given a cost driver tool to build up costs by HRG (see Chart 1). In addition, a second Excel tool was developed to enable participants to see at a department level, how cost per case changes with various productivity and efficiency improvements.

Key findings

Unsurprisingly, the HRG analysis provided significantly more insight into performance differences than the department analysis conducted in the first stage of the study.

Key findings from the data were that:

Case complexity is similar across trusts - For example, average ASA grade, average patient age and
referral source for primary knee varied little across trusts. The differences at the department level were also small. The performance differences observed were too significant to be explained by case mix variation.

HRG costs differ substantially by trust - For example, primary knee costs identified ranged from £4,350 at one trust to £6,222 at another. This compares to a tariff of £5,376, excluding the Market Forces Factor (see chart 2).

Cost differences are driven by theatre utilisation, average length of stay and prosthetic costs:

• Theatres are clearly one of the most valuable assets within a trust and high utilisation should be a priority. Traditional measures would suggest a utilisation of between 81 and 92%. However, further analysis of 4 trusts showed that only around 50% of time was actually spent on surgical work.

• Average length of stay ranged significantly, for example from 6.1 days to 9.6 days for primary knee. Average length of stay for HSS, the US orthopaedic hospital was lower still at 5.1 days. Total bed costs varied significantly as a result of these differences. These differences are primarily driven by variations in the clinical pathway. For example, the proportion of patients admitted the day before surgery ranged from 0-100% between trusts.

• Prosthetic costs differed by as much as 50% for primary knee and 60% for primary hip. Costs differed by up to 40% for identical prosthetic products.

Major cost savings are possible by improving performance to the benchmarking best:

Some trusts could save well over £100k on primary knee or primary hip prosthetics if they matched the lowest price within the benchmark group. Combined with improved theatre utilisation and reduced average length of stay, trusts could save a total of between £150k and £1m a year for the 3 HRGs reviewed. If similar savings were replicated across the whole trauma and orthopaedic department, the 7 trusts could collectively save around £16m a year (see chart 3).

Capturing the benefits

Having completed the data analysis and identified the key drivers of performance, the seven trusts have identified specific areas on which they will focus their improvement efforts. These include:

• Theatre utilisation - sharing learning on different operational practices to improve the proportion of theatre time spent on surgical activity. This includes considering whether anaesthetic practices can be changed to enable patients to be anaesthetised whilst surgeons operate on another patient. In trusts where there is no parallel processing, over 15% of theatre time may be spent on anaesthetics rather than surgery. Trusts are also looking at how to drive up day case rates, including setting individual surgeons day case targets;

• Length of stay – the benchmarking clearly demonstrated that following best practice along all the key parts of the patient pathway could dramatically reduce length of stay. A number of trusts have prioritised work to ensure that all patients can be admitted on the day of surgery except by clinical exception. Work is also underway to improve pre-operative patient education. Trusts with shorter length of stays preferred to talk about stages to recovery rather than numbers of days in hospital, to encourage patients who are recovering well to leave as soon as clinically possible. Improving discharge arrangements made prior to surgery is also high on the list of priorities of many of those in the benchmarking club.
• Prosthetics – Whilst procurement strategies will clearly need to fit with each trust’s wider objectives, participants discussed general good practice guidelines that all trusts can follow. This included ensuring negotiations are conducted by senior trust executives who are experienced negotiators and agreeing a joint approach between clinicians, service managers and procurement teams to ensure a united front is presented to devise companies.

Learning from the process

The benchmarking also suggested a number of changes to the way in which trusts gather information to ensure they have a better understanding of cost at the HRG level and can track the key metrics which drive performance. Whilst data is limited by the available IT systems, a number of “quick wins” were identified, including:

• Tracking prosthetic costs - given the need to record prosthetics for the National Joint Register, this data should already exist in trusts. One option discussed was to produce a monthly report showing average prosthetic cost by surgeon, to be reviewed by the orthopaedic service manager and lead clinician.

• Ensuring departments have greater visibility of the fixed costs allocated to them, particularly so that service managers can understand and interrogate their indirect cost allocation to ensure it provides value for money. Indirect costs typically represented about 20% of total costs.

• Sharing comparative data by clinician with service managers and clinicians. For example, average length of stay, activity and prosthetics cost could all be tracked by clinician. Trusts that have adopted this approach have found it a powerful tool for identifying operational differences and sharing best practice.

Next steps

The seven trusts in the benchmarking club are now collaborating on an ongoing basis to realise the savings identified and to improve patient pathways learning from the benchmarking best (see chart 4).

The FTN is keen to share the lessons of this collaboration and to set up similar benchmarking clubs in the autumn of 2006 based on expressions of interest from Network members.

If you would like to participate in a future project, please contact Sue Slipman, Director of the FTN on sue.slipman@nhsconfed.org or Jenny Reindorp, FTN project manager on jenny.reindorp@nhsconfed.org.

The Foundation Trust Network (FTN) represents foundation trusts and over 40 NHS trusts preparing for foundation status. We work to represent the views of foundation trusts, to influence health policy and to share learning and good practice, both within the FT movement and with the rest of the NHS.