

briefing

MARCH 2009

FTN Benchmarking

Driving performance improvement in cardiology and cardiac services

Key points

- 18 trusts took part in an intensive analysis of their angiography, angioplasty and coronary bypass procedures between February and May 2008.
- Three key drivers of cost differences were identified:
 - stent price and usage
 - day case rates and length of stay
 - cardiac catheterisation laboratory (cath lab) and theatre efficiency.
- By matching to the 75th percentile performance, total annual savings of £4.6 million were identified for the group as a whole.
- Trusts could increase cath lab usage by between 10 and 50 per cent.

A group of 18 Foundation Trust Network (FTN) member trusts worked on a benchmarking project to identify how they could improve their cardiology and cardiac surgery services, by analysing their costs and comparing their performance.

This *Briefing* outlines the benchmarking process, its findings, and the subsequent actions being taken by trusts involved in the project.

Background

Cardiology and cardiac surgery is the third specialty covered by FTN Benchmarking. Previous cohorts of nearly 50 trusts have been involved in benchmarking orthopaedics and maternity services.

FTN Benchmarking brings together clinicians, services managers and data leads, and helps them build a bottom-up understanding of the actual costs of individual procedures. By comparing cost and performance data, set against clinical outcomes and patient satisfaction, the benchmarking process identifies the underlying reasons for performance differences and the improvement opportunities for each trust.

The benchmarking process

Each participating trust established a project team with a clinical, data and service manager lead, and a board-level project sponsor to oversee the project.

Stage 1: Scoping

The first stage of the process was a workshop to agree the scope of the benchmarking activity and select those healthcare resource groups (HRGs) that were financially and/or strategically significant to study in more detail. These included angiography, angioplasty and coronary bypass.

Stage 2: Data collection

The FTN Benchmarking team then



worked with trusts to develop a data collection tool to capture the detailed financial, operational and activity information necessary to build a genuinely bottom-up costing. Services were broken down into constituent resource elements – including staffing grades and numbers, theatre and ward costs, consumables costs etc. This enabled trusts to gain a greater understanding of the different cost categories contributing to the total HRG cost. Alongside this, qualitative data was collected which helped to identify operational and strategic issues, and capture possible solutions.

Stage 3: Data analysis

The FTN Benchmarking team produced a series of analyses based on the data, which the trusts validated.

Stage 4: Performance benchmarking

The final stage was a workshop to discuss the data and identify improvement opportunities. Trusts presented on aspects of their services

that the process identified as high performing. As a group, they explored the different approaches reflected in the analyses, generated ideas to improve performance and shared the learning from the process. Project teams then developed individual action plans for their trusts.

The findings

This process has enabled trusts to identify what contributes to the costs for each procedure, understand variations in staffing levels and configurations in trusts, and share the strategic and operational concerns they face.

Bottom-up costs vs. tariff income

For coronary bypass (E04), the bottom-up costing exercise calculated that in all trusts, costs exceeded the level of tariff for this HRG (see Figure 1).

Cost savings and efficiency gains

The project identified significant

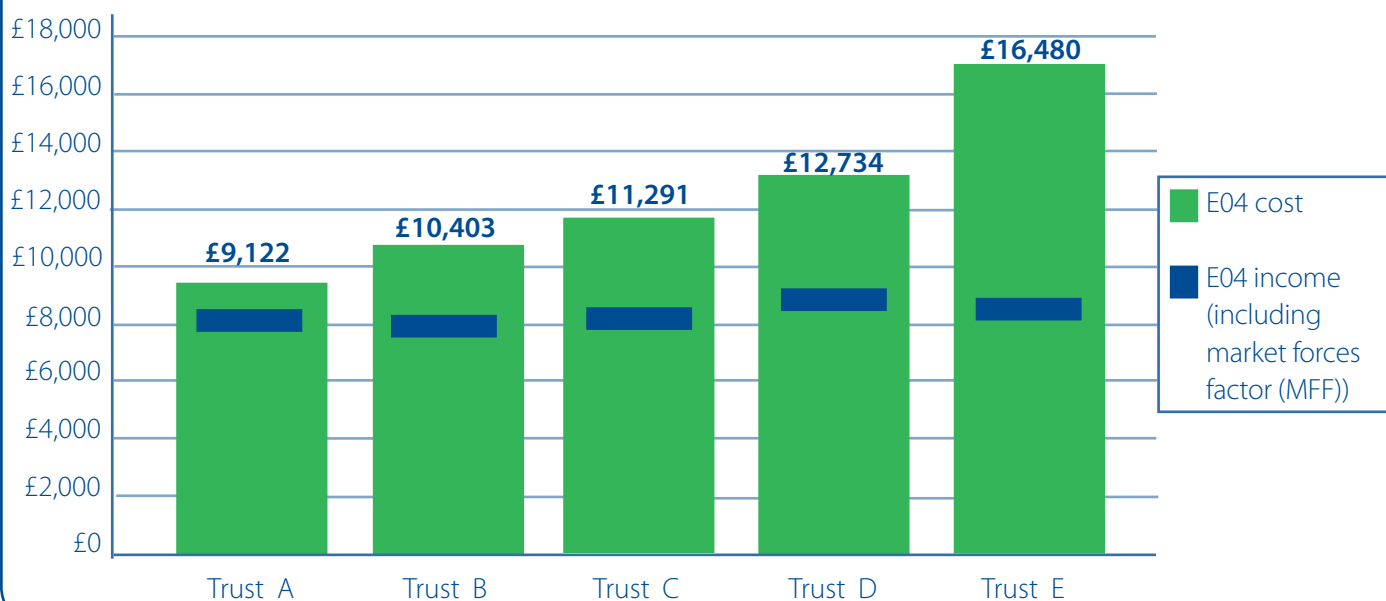
differences in trusts' performance on key cost drivers. By matching to the 75th percentile performance, total annual savings of £4.6 million were identified for the group of 18 trusts.

The analyses suggest that trusts could increase cath lab usage by between 10 and 50 per cent.

Cost differences identified are driven by the use and cost of stents, day case rates and length of stay, and cath lab and theatre efficiency

Stents – both the use and cost of stents in angioplasty varied considerably across the trusts. The average cost for drug-eluting stents varied by £360 – from £500 to £860. The benchmarking process revealed that the price paid for the same model from the same manufacturer differed by more than £400, without a strong correlation between stent price and volume. Some smaller volume trusts achieved stent prices that compared favourably with high volume trusts. Differences in procurement strategies and processes

Figure 1. Coronary bypass (E04), calculated cost per episode vs. tariff income



seem to play a large part. The average number of stents used per procedure varied by 70 per cent. All trusts used a mix of drug-eluting and bare metal stents – one trust used drug-eluting stents in 36 per cent of angioplasties while another used them in 86 per cent.

Day case rates – day case rates for elective angioplasty varied enormously, leading to significant differences in length of stay and episode cost.

Catheter lab and theatre efficiency – by matching the best performance across trusts in terms of late starts, early finishes, delays and changeovers, 81 per cent of planned cath lab time could theoretically be used for carrying out procedures. In practice, trusts' usage ranged from 30 per cent to 66 per cent.

In theatres, the best case scenario was 82 per cent of scheduled time being used for operations, while the trusts' actual results ranged from 58 per cent to 72 per cent.

Staffing varies significantly
Headcount, role and grade mix – when weighted for activity, there were significant differences in the numbers of staff involved in providing services. There were also major differences in the role and grade mix. This has an impact on service costs and, potentially, quality. Some trusts expressed concern over the sustainability of services based on their existing staffing profile.

More detailed cost and patient experience data is needed
Detailed costing data for services are rarely readily available. More than

half of trusts are planning on implementing patient-level costing systems in the near future and it is hoped that this will address a significant deficit in information systems. The lack of information on patient experience means that comparison of patients' views of quality cannot be easily undertaken. This represents a missed opportunity for identifying quality improvement opportunities.

The FTN is now working with the Department of Health to maximise the benchmarking potential arising from the development of measures for quality and patient experience in the NHS.

The key operational and strategic issues are: the 18 week target, service expansion, technological innovation, case complexity and staffing

The 18 week target – delivering the target for the 18 week patient pathway is a major challenge for cardiology and cardiac surgery services. Robust, integrated information systems to monitor performance were rarely available. Fragmented pathways and multiple referral sources (from both primary and secondary care) added to the complexity. In spite of this, nearly half of the trusts reported that they were already meeting the target, suggesting that a number of different systems and approaches can be effective.

Service expansion – there has been a rapid expansion in the number of cardiac catheter labs, and many trusts felt that capacity had been increased without sufficient regional or national coordination or collaboration,

resulting in many trusts experiencing over-capacity or under-capacity in this area. Primary PCI (percutaneous coronary intervention) is another treatment currently experiencing strong growth. In this field, trusts raised some questions over the transparency of the decision-making process leading to the identification of sites providing these services.

Technological innovation – introducing innovative services and technologies frequently leads to financial pressures. Benchmarking discussions have highlighted that the process for negotiating local tariff payments for services not adequately covered by the national tariff is seen as slow and resource intensive.

Case complexity – a number of trusts, in particular tertiary centres, report an increase in the complexity of cases being seen and have concerns over the adequacy of tariff to cover service costs.

Staffing – most trusts report that staff vacancies and difficulties in maintaining the right workforce are adversely impacting on services. Cardiac physiologists, cardiac technicians and critical care nurses are the roles that are most frequently identified as challenges.

Actions

The trusts involved in the project are using the findings of the data analysis and performance benchmarking to initiate action to bring down stent costs, increase cath lab efficiency, reduce admissions, assess staffing levels and

take greater control over the 18 weeks pathway.

Reviewing the use and procurement of stents

Some trusts are conducting reviews to look at:

- the number of different models stocked
- the average number used per procedure
- the proportion of drug-eluting stents used
- differences in practice between clinicians.

They are also reviewing guidelines on stent use and reviewing their procurement processes to:

- ensure clinician involvement
- aim for continuity in the relationship between the procurement team and the sales representative
- tender regularly.

Investigating catheter lab scheduling to increase day rates and reduce admissions

Trusts are investigating:

- how they can schedule their lists more effectively
- whether they can increase day case rates in line with good clinical practice

- scheduling patients/procedures with the longest recovery times in the morning, to reduce the likelihood of admission.

Exploring appropriateness and grade mix of staff

Trusts are investigating whether:

- the amount of time cardiologists spend treating non-cardiology patients is appropriate or can be reduced
- the grade mix of medics and nurses enables the efficient delivery of high-quality care

- the grade mix of medics and nurses supports a sustainable service.

18 weeks pathway

Trusts are:

- reviewing awareness/training needs of key service staff involved in all aspects of the pathway
- ensuring use of milestone referrals with all organisations involved in the pathway aiming to treat all outpatient appointments using a one stop shop model as far as possible.

Get involved

The FTN runs a series of benchmarking projects on different topics. For further information, visit www.nhsconfed.org/FTNBenchmarking or email liz.smith@nhsconfed.org

The Foundation Trust Network

The Foundation Trust Network (FTN) was established as part of the NHS Confederation to provide a distinct voice for NHS foundation trusts. We aim to improve the system for the public, patients and staff by raising the profile of the issues facing existing and aspirant foundation trusts and strengthening the influence of FTN members.

The NHS Confederation is the only independent membership body for the full range of organisations that make up today's NHS. Its ambition is a health system that delivers first-class services and improved health for all. As the national voice for NHS leadership, the NHS Confederation meets the collective needs of the whole NHS as well as the distinct needs of all of its parts through its family of networks and forums. The FTN is one of these.

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