High Performing Emergency Pathways

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Introduction

In Spring 2013, as many NHS trusts’ emergency departments buckled under the strain of an extended winter, 2020 Delivery began exploring the causes and potential solutions to the challenges they were facing, through reviewing performance and partnering with a number of NHS acute trusts to attempt to answer these key questions:

- How can we measure the performance of an emergency pathway?
- What is it that trusts with the best-performing emergency pathways do differently?
- How can we most effectively improve the performance of emergency pathways?

We developed a multi-faceted measure of performance to rank trusts based on their emergency pathway performance, interviewed high-performing trusts to explore the drivers of good performance, and used the findings of this research to inform improvement experiments in a number of trusts. Our initial research led to some unexpected findings, and the improvement approach we adopted has achieved some exciting results from experimental changes. This article presents the findings of our investigation and recommendations for trusts seeking to improve their emergency pathway performance.

How can we measure the performance of an emergency pathway?

There is no single measure that indicates how well an emergency pathway is performing overall. After reviewing the factors which affect performance, we decided to use a basket of measures across four performance domains\(^1\) in our emergency pathway scorecard:

- **Unit cost**: Reference cost index: average NEL and A&E (DH)
- **A&E median time to treatment**: (HSCIC)
- **A&E 4-hour performance**
- **Mortality**: Average of SHMI and NEL deaths within 30 days (HSCIC)
- **Incidents**: Average of severe and death incidents per 100 admissions (NRLS)
- **National Inpatient Survey** (average score from a selection of questions measuring patient experience - HSCIC)
- **A&E 7 day re-attendance rate**: (HSCIC)

\(^1\) Including the national “four hour performance”, i.e., performance against the government’s target that 95% of patients should be seen, treated and admitted or discharged within four hours of arrival, but not constrained to use that as the single measure of “performance”

Figure 1: How can we measure the performance of an emergency pathway?
We weight each domain and use the latest full-year data available – at the time of our initial research this was 2012/13 data. We excluded any trusts that scored in the bottom quartile for any of the measures shown above, and any trusts with mortality rates below average.

The top performers

Our initial data analysis in spring 2013 showed that the trusts ranking in the top 10 for emergency pathway performance were:

1. South Tees Hospitals NHS Foundation Trust
2. County Durham and Darlington NHS Foundation Trust
3. Taunton and Somerset NHS Foundation Trust
4. Poole Hospital NHS Foundation Trust
5. West Suffolk NHS Foundation Trust
6. The Royal Bournemouth and Christchurch Hospitals NHS Foundation Trust
7. Dorset County Hospital NHS Foundation Trust
8. Burton Hospitals NHS Foundation Trust
9. Kettering General Hospital NHS Foundation Trust
10. Royal Devon and Exeter NHS Foundation Trust

It was notable that a number of trusts which frequently appear at the top of other tables did not score so well here, for instance University College London Hospitals NHS FT (UCLH) and Frimley Park Hospital NHS FT each scored well on many of the measures, but both had high median time to treatment in A&E, i.e. although they were mostly meeting the four-hour target, many patients’ treatment was being completed in just under four hours – indicating ‘breach avoidance behaviours’ or ‘managing to the target’, such that their median time to treatment was relatively close to their 95th percentile (figure 2 below). High performing trusts had a more balanced performance as illustrated in figure 3. UCLH also had relatively high reference costs for A&E and non-elective inpatients, indicative of low financial efficiency.

![Figure 2: Time in A&E department - a typical ‘4-hour target’ profile](image)

![Figure 3: Time in A&E department - a typical ‘high-performing’ profile](image)
2014 was a turbulent year for the NHS, particularly in urgent and emergency care. In late 2014, we repeated our analysis and found that only two of the trusts, Taunton and Somerset and Royal Devon and Exeter, had remained in the top 10. The others had, however, remained in the top third of the table. The updated top 10 list is as follows:

1. South Warwickshire General Hospitals NHS Trust
2. Chelsea & Westminster Hospital NHS Foundation Trust
3. Harrogate & District NHS Foundation Trust
4. Surrey & Sussex Healthcare NHS Trust
5. Taunton & Somerset NHS Foundation Trust
6. Luton & Dunstable Hospital NHS Foundation Trust
7. Salisbury NHS Foundation Trust
8. St Helens & Knowsley Hospitals NHS Trust
9. North Cumbria University Hospitals NHS Trust
10. Royal Devon & Exeter NHS Foundation Trust

What is it that trusts with the best-performing emergency pathways do differently?

During 2013 and 2014, 2020 Delivery worked with managers and clinicians at six trusts with high-scoring emergency pathways, including Royal Devon and Exeter and Taunton and Somerset, to determine what common characteristics these high performers shared. We initially carried out interviews with each, before hosting a round-table discussion. In 2014 we held an Innovation Week across three trusts simultaneously to investigate opportunities for improvement in more detail.

Through our conversations it became clear that, in all of these successful trusts, the focus was on culture, experimentation and end-to-end continuity rather than simply on structure and process. There were four common factors that these trusts agreed were key to achieving good emergency pathway performance:

1. Continuity and communication along the pathway
2. Dynamic capacity, occupancy and flow management
3. An experimental and empowered culture
4. Familiarity with using quantitative evidence to inform changes.

We now explore each of these a little further.

1. Continuity and communication along the pathway

Managing a patient's care plan is not always straightforward, and the handover of clinical responsibility from one clinician to another necessarily takes time. In recognition of this, one trust had implemented extended medical rotas that not only made consultants available seven days per week, but enabled patients to be under the care of the same consultant for seven consecutive days. With greater continuity of care came improved progress towards discharge and fewer errors and omissions.

Interviewees at smaller trusts felt that their size facilitated strong communications. They described strong personal relationships across teams that enabled more efficient and effective exchanges to get the job done. Larger trusts faced a greater challenge in ensuring departments and teams communicated effectively with each other to plan
and deliver patient care. Continuity of purpose and approach was cited by interviewees as a further enabler of high performance. If the organisation clearly articulates its operational priorities (e.g., delivery of high quality care), this provides guidance to help staff focus on the right choices and improvement opportunities.

2. Dynamic capacity, occupancy and flow management

Our initial research had revealed that seven of the 10 high-performing trusts all had lower bed occupancy rates than the national average alongside low reference cost indices, suggesting that this investment in capacity was leading to high levels of financial efficiency. A healthy bed occupancy rate is indicative of well-aligned demand and capacity, and during discussions the trusts recognised the need to achieve this over different time frames: daily, weekly, seasonally and over the long term. Physical capacity and staffing rotas were matched to demand profiles over these time frames and reviewed regularly, so opportunities to re-optimise could be identified early.

A recognition that operational headroom enables greater efficiency, combined with an evidence-based approach to capacity planning, helped the high-performing trusts deliver better operational results within their financial constraints.

3. An experimental and empowered culture

A less tangible, yet equally valued, success factor unearthed by the discussions was a widespread commitment across the trust to experimenting in the pursuit of excellence. This was described as a cultural norm in the high-performing trusts. Acute emergency pathways (indeed, regional urgent care systems) are inherently complex and will commonly yield unexpected results. Acknowledging that there isn’t always a ‘right answer’, teams instead sought to establish effective means of trialling new approaches in a controlled manner, with a clear method to evaluate degrees of success.

This freedom to try new things, combined with the knowledge that not every experiment will yield success, was further supported by a shared set of guiding values and a high degree of mutual respect among and between clinicians and managers.

4. Familiarity with using quantitative evidence to inform changes

The fourth and final theme identified was that of attitudes towards and use of quantitative evidence. The trusts described the high value placed on data by their staff, who treated it as a resource to be explored and exploited so that new knowledge and understanding of operations could inform everyday and strategic decisions alike.

This is not to say that the trusts hadn’t experienced issues with data, but observations of data incompleteness or inaccuracy were met with a commitment to resolve them, recognising the very real medium and long-term benefits of doing so.

These two cultural factors resulted in a workforce learning more about the challenges they were grappling with, rather than ‘rubbishing’ data when messages were unpalatable, or using it only to justify long-held opinions.

How can we most effectively improve the performance of emergency pathways?

The investigation described above uncovered a number of new insights on what it takes for an emergency pathway to perform strongly, and 2020 Delivery used these to develop a new improvement approach designed specifically for emergency pathways.

This approach, which we call ‘observation and innovation’, uses observations at the front line and responsive innovations to bring a fresh perspective to improvement. Observations are patient-centric – processes are evaluated from the patient’s perspective, with data gathered using first-hand methods. Innovation and learning are promoted by encouraging the departmental team to try new ideas on one day, then evaluate and iterate the solution on the next.
By using the ‘observation and innovation’ improvement approach with a number of trusts in 2014-15, we have been able to test the hypotheses about high-performing emergency pathways developed over the previous year. Below are some examples of this work.

**Example 1: Improved communications along the pathway**

At a large teaching hospital in London, communication between wards and the A&E team was set up to manage the complexity and physical distance between their locations. A dedicated team was providing a flow of information at regular times throughout the day, but information was often found to be out of date. The 2020 Delivery team decided to see if they could improve this. They identified that, if they could find a way of providing ‘real time’ information about bed status on wards, waiting time in A&E could be reduced. Their innovative approach involved using a web-chat app to provide real-time communication between wards and A&E as a proof of concept. Results were good, with staff feeling better informed and a number of blocks resolved quickly, so plans to develop a longer-term solution were immediately developed.

**Example 2: Use of quantitative evidence**

We used the observation and innovation method again in winter 2014/15 to identify changes that could help reduce pressure on another A&E department.

Whilst talking with the A&E team at the start of the programme, we heard repeatedly that one of the key restrictions to patient flow was the lack of bed availability in the hospital. A considerable effort was being made to improve patient discharge rates from wards, but the A&E team felt that they had little ability to improve the situation in the short term.

However, by using snap-shot observations of every cubicle in the A&E department over the period of a few days, the 2020 Delivery team were able to understand better the key drivers of patient flow. It was true that around a third of patient delays were caused by bed availability issues. However, the data also showed that around a quarter of delays...
were caused by A&E diagnostic tests and a further quarter by lack of clinician availability. Both of these issues were directly under the control of the department and, very quickly, the team began to identify a number of improvements which could be implemented.

This focus on gathering first-hand, targeted evidence provided the A&E team with data they trusted, giving them confidence in their choice of improvements and motivation to follow through to implementation.

**Example 3: Encouraging an experimental culture**

In autumn 2014, 2020 Delivery ran an Innovation Week when we worked with three trusts, using the ‘observation and innovation’ approach to understand and experiment with reducing delays for patients in A&E. All trusts reported that the week had given them more confidence to try new ideas and make rapid improvements. An analysis of the four-hour performance of these trusts in the following months shows that they have continued to perform better than average.

The trusts that participated in our Innovation Week have since forged a network for sharing the results of their experiments and their continued progress towards excellence.

Emergency and urgent care systems are complex, and all trusts will need to strive continually for improvement if current operational targets are to be sustainably met in the future. The ‘observation and innovation’ method is one way in which improvements can be quickly and effectively generated. Our efforts to identify and evidence the most effective innovations for emergency pathways will continue into 2015.
About the authors

Russell Cake, Director, co-founded 2020 Delivery in 2006 and leads 2020 Delivery’s health practice: with Acute Trusts he leads work on service strategy, collaboration and configuration strategy, financial turnaround and capacity planning; with CCGs he focuses on work on commissioning, service configuration and community services.

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