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Service Improvement
and Redesign tools

Reducing length of stay



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What is it?

The NHS has, for a long time, focused on attempting to reduce patient length of stay in hospital. As well as being better for patients, reducing length of stay releases capacity in the system that can be used for other patients and enhances flow.

While there has been a continual downward trend in the length of stay for some of the most high volume procedures, analysis of national data shows that there is still significant variation between organisations that cannot simply be the result of case mix. Some organisations still need to focus on reducing length of stay.

This tool will help you to proactively plan the whole process of care and specifically focus on active discharge planning from the day of the patient's admission. It can help you to achieve a clear pathway of care through the system for specific conditions and manage patients' expectations.

When to use it

You should use this tool when you believe that length of stay is longer than it could be. Experience demonstrates that the major factor in the variation in length of stay is the way in which services are organised rather than differences between patients. For example, even though patients are admitted seven days a week (specifically emergency admissions), they are typically only discharged five days a week. There is generally a peak on Fridays and a trough over the weekend. This situation is created by the way services are organised and is under our control, hence the continual drive for the NHS to provide seven-day services where a weekday is no different from the weekend.

How to use it

1. Diagnosis

- Analyse all inpatient Length of Stay (LoS) to identify where improvements in the discharge process will have the greatest impact. The 80:20 rule will help here, (80% of patients have a much shorter LoS than the remaining 20% so you may want to consider the process specifically for the 80% (see [Pareto](#)). However it is important to not forget about those patients with particularly long LoS. If the amount of bed days used by these long stayers is examined, it can have a large effect on reducing capacity. It makes sense to start by thinking about high volume procedures or areas that show evidence of a mismatch in capacity and demand. It can be useful to benchmark services against national data, which is readily available.
- Map the process, identify bottlenecks and the main causes of delay in the process of care and particularly around discharge (see [process mapping](#)).
- Map the information flows and responsibility for direct patient care at all points in the patient journey.
- Measure and analyse current patterns of discharge by day of week, hour of day, specialty, etc.
- Consider how long patients are spending in a bed before they have an operation.

2. Problem solving

- Use predictive discharge methods to reduce variation and help eliminate delays.
- Attempt to smooth demand from surgeons across the week (particularly where these include demand for shared resources such as critical care).
- Set a planned date for discharge on the day of admission or at pre-admission, if possible, using protocols and pathways for common conditions.
- Involve patients and their families or carers in discharge planning so that they are prepared and can make their own arrangements.
- Use visual triggers, eg visible expected date of discharge.
- Involve social services early if required.

3. Orchestrating discharge

- Establish regular discharge, making ward rounds at least once a day, early in that day.
- Consider implementing nurse led discharge if doctor availability is a constraint in the system.
- Identify the lead-in times required, eg doctor's review, test result availability, medicines, transport, etc and plan discharge taking them into account to ensure that they don't delay discharge.
- Match the time of discharge with the time beds are required on an hourly basis. Many trusts have found it helpful to focus on the time of day when discharges occur. Moving discharges to the morning before peak arrival times helps keep the flow through an organisation.

Examples

1. The enhanced recovery programme at Torbay and Devon NHS Foundation Trust is a structured, evidence-based approach to prepare patients for surgery and reduce its physical impact. This means that patients recover more quickly, enabling earlier discharge so reducing length of stay.

2. The majority of patient care at the London North West Healthcare NHS Trust is proactively managed by agreed multi-disciplinary protocols of care. This includes mapping out the processes, streamlining them, extending staff roles and agreeing and auditing length of stay. Over the last 10 years, the predicted duration of stay for total knee replacement has been reduced from 13 days to five.

What next?

Concentrate on the high volume pathways. Identify these by using the [Pareto](#) principle.

Ensure a date for discharge is made at, or before, the point of admission and encourage your organisation to proactively manage care using agreed protocols or pathways. This will enable staff to address the key questions of what should be done, when, where and by whom at a local level and help reduce length of stay.

Length of stay can also be influenced by not admitting some patients overnight, for example, by admitting, diagnosing, treating and discharging both elective (ie day cases) and emergency patients (ie same day emergency care/ambulatory emergency care) all on the same day. Reducing length of stay is about change and so it is crucial to have good clinical engagement and involvement.