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Flow – reduce unnecessary waits

NHS England and NHS Improvement

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What is it?

Reducing unnecessary waiting along a patient journey will mean that the system is more efficient, variation is reduced and the patient experience is improved. There is a tendency to group similar work together and process it as a 'batch'.

While this can simplify work planning for clinical staff, it can also introduce unnecessary delays. Individual clinicians may feel that they are being productive by batching work, but it will have a negative effect on the system as a whole, so patients have to wait longer.

Grouping work to do later, either by time or by type, causes peaks and troughs in demand for the next step in the process – like mini rush hours in the system. This can be especially challenging for those departments (eg diagnostics) that have requests for work from many different sources. *'Do today's work today'* should be an underlying aim that services strive to achieve.

When to use it

Piles of work to do later, infrequent decision making (see **discharge planning**) and batching of work (eg weekly note and letter writing, Friday discharges) will all be associated with a delay in a patient journey or diagnostic pathway. To remove these delays, change how work is organised.

To reduce unnecessary waits, consider how piles of paperwork can be reduced, ensure frequent decision-making and reduce batching or batch sizes as a whole. Examples of piles, batches and grouping include:

- a particular diagnostic test is only carried out once a week
- letters are typed up once every three days
- multi-disciplinary teams meet fortnightly
- delays and time spent by a consultant to justify GP requests for ultrasound/other diagnostic tests (when 'wrong' referral rates are low).

How to use it

1. To understand if unnecessary delays and batching are a problem, start by identifying patterns of work that contribute to delays in the system and where work is routinely piled up or batched together.

- In a group, use **value stream mapping** to help identify delays in the patient pathway.
- Walk through the processes and/or the patient journey looking out for delays and batching (evidence includes things such as like piles of reports, etc.) See **process mapping** for more information.
- If paperwork seems to be a big cause of delay, a **tracer study** (delay in paperwork) may be useful.

Discuss and understand the difference in journey times for different patients on the same pathway. This will highlight the scope for improvement. Use specific cases to highlight differences between different staff members and to generate discussion.

The approach you use will depend on your team and focus. It is always better to include and involve people as early as possible so they can identify the solutions themselves.

You will need to understand different perspectives: clinical engagement and **gaining insights from/working with health service users** can help with this as sometimes evidence alone isn't enough. For example, a consultant reverts back to their original behaviour of weekly decision-making (despite evidence that patients wait less if the consultant reports on the same day as the CT scan) because it is easier for them to report in one big group in a dedicated time slot.

Shadowing staff and watching how people work may give you ideas about which changes could work for them. Understanding the impact of change on individuals and developing systems to make the new way of working easier for staff are crucial. It may be necessary to help clinical staff redesign their new ways of working to ensure that they become embedded. It is helpful to have a continual reminder of the reasons for the change ie how it reduces delays and creates a better patient experience.

2. Build up evidence of the impact of delays on patients. Lots of small delays add up so don't just focus on the big delays.

Identify a simple measure that you can collect easily to help you monitor progress. For example, the total pathway or process time. You can then plot these data to highlight variation between patients. See if information already exists or can be easily generated by your information department.

3. Identify options for improvement. Many solutions will become obvious to people when they see the process maps and have an opportunity to discuss what is going on. It is always useful to use **thinking creatively to solve problems** to ensure that any solutions suggested are as good as they can be.

Examples of common changes that can be made are:

Change the process

- Reduce the number of steps in the patient pathway/diagnostic pathways: this reduces the opportunities for grouping, piling and batching work.

Change the way people work

- Increase frequency of times when decisions are made or specific types of work are done.
- Change the overall behaviours of work, eg do today's work today.

Support the changes

- Make sure there is time allocated for the change, eg paperwork (it should be included in demand and capacity analysis).
- Look at changing behaviour and make it easier to batch less.

System change

- Schedule referrals or work as it comes in (the scheduling systems need to be in line with **demand and capacity** for the work).

Examples

A radiologist groups and reviews her CT reporting once a week. This is because she feels that it is a more efficient way of working. By grouping them, the impression is that it takes less time for each CT report. However, this way of working means that patients wait anywhere between one and nine days for their diagnostic assessment (see graph below). When she tried reporting at the same time as the exam, waiting times were consistently less than two and a half days.

Figure 1
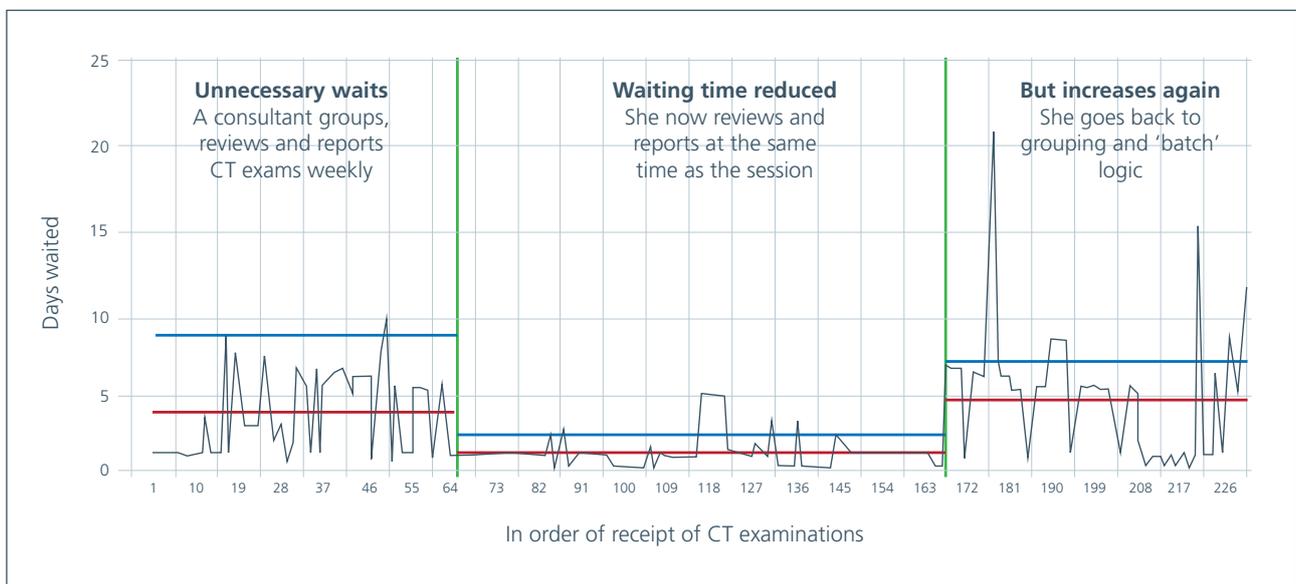
What next?

Be aware that making changes can create 'waves' of demand for work further along the pathway. This is because, as all the mini waiting lists and piles of work are done, they move onto the next stage ie your backlog becomes someone else's to do list.

If you know where the bottleneck is along the patient or diagnostic pathway, you can use this to focus where you want to make improvements. Remember that:

- improvements before a bottleneck are likely to result in increased waiting just before the bottleneck, so start improvement at the end of the pathway/process and work backwards
- improvements at the bottleneck should result in increased throughput of patients along the pathway
- improvements after the bottleneck are likely to result in decreased patient journey times but not increased number of patients seen along the pathway.

You may also need to take additional steps to increase the number of patients or tests that can be dealt with. This releases existing capacity or adds additional capacity. Once you have decided on the steps you will undertake, you can use rapid cycle small tests of change (see **PDSA**) to see how the changes work in practice.

Monitoring change is also very important, so build up evidence of your improvement. This will enable you to use simple measures (see **seven steps to measurement for improvement**) to show how delays have been reduced and to observe if the change has been sustained.

Background

The principles originate from **Lean** thinking and a focus on improving flow. The basic concept is to keep things moving, as waiting is one of **Ohno's eight wastes** in systems. Having a steady, routine flow of work makes things predictable and manageable. Many peaks and troughs in work are caused by our ways of working (see **managing variation**). It is the principle behind setting a speed limit for everyone on a motorway when there are roadworks: it smooths the flow so there is less congestion and everyone gets there faster.