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# Conventional process mapping

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## What is it?

Process mapping enables you to create a visual picture of how the pathway currently works, capturing the reality of the process, exposing areas of duplication, waste, unhelpful variation and unnecessary steps. By involving a range of people from across the pathway, everyone can discuss the actual steps taken through the journey/pathway from their own perspective and take the time to consider what works well or less well from a patient perspective.

Frustrations and challenges will be aired and it is crucial to consider how to address these frustrations and generate ideas for service improvement.

This tool helps to build good working relationships within a team and across functional and organisational boundaries – with everyone focused on making improvements that will have the biggest impact for better patient and staff experiences.

## When to use it

Using process mapping before making any service changes helps you gain a better understanding of how a whole patient pathway works. If changes are made without understanding the current processes sufficiently well, unintended consequences such as creating problems at another point in the journey may result.

## How to use it

### 1. Thinking prompts to plan your mapping session

- What is the purpose of the session?
- How will you engage clinical, managerial and service leaders beforehand to ensure that they feel involved in and committed to the process?
- Who is your senior sponsor?
- Who could act as a champion(s) to publicly support the process and act as change agents?
- Who needs to attend to provide a broad perspective of the process? Invite representatives from all staff groups involved in the pathway, patients, service users and carers. Include staff like porters and administrative staff who bring useful, different perspectives from clinical staff. The process map will only be as good as the list of people who attend - there will be gaps if some staff are not invited.
- Does anyone attending need additional preparation to feel comfortable contributing to the session?
- Where will you hold the session? Make sure your room has space to put the mapping paper on a wall and for people to move about freely to discuss the process and do the mapping.
- How long do you need? Allow time for analysing the map and developing an action plan to test improvements.

- When will you do it? Applying the 'six-week rule' should enable clinical staff to attend.
- When will you follow up? Planning sessions from the outset helps diary management.
- Do you need an external facilitator to run the session? If your group is larger than 10, a facilitator may be useful so you can chair the session and the facilitator can help you to keep on track.
- How can you prepare before the session? Would it be helpful to take photographs of key steps in the journey, eg the sign for outpatients, diagnostics, theatre, etc to use as visual prompts on the day?

## 2. Equipment for process mapping

- Mapping paper (lining wallpaper works well)
- Good quality sticky notes
- Marker pens
- Blu Tack
- Scissors
- Sellotape
- Flip charts (for ideas and niggles)
- Refreshments

## 3. Running the process mapping session

Before the session, prepare the room:

- Stick the mapping paper onto the wall
- Prepare flip charts – one to capture ideas and the other to capture niggles
- Write the name of the pathway/process that you are mapping at the top of the paper
- Check the room layout is helpful – move the furniture if necessary.

During the session:

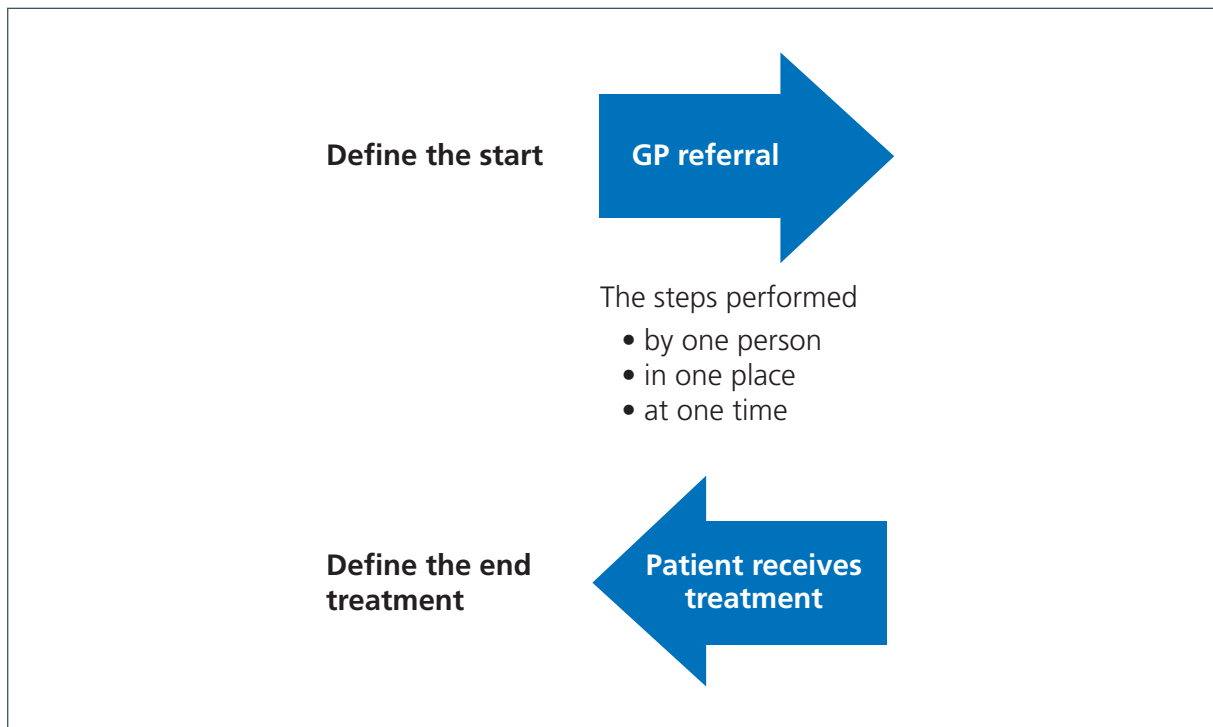
- Restate the objective
- Ask people to introduce themselves (name, role, etc.)
- Agree the ground rules for the session. These might include openness, constructive challenge, listening, confidentiality, respect and others that the group decides.

## Producing a high level map

The aim of process mapping is to make things clear and to provide insight. The best map is the simplest map that provides that insight.

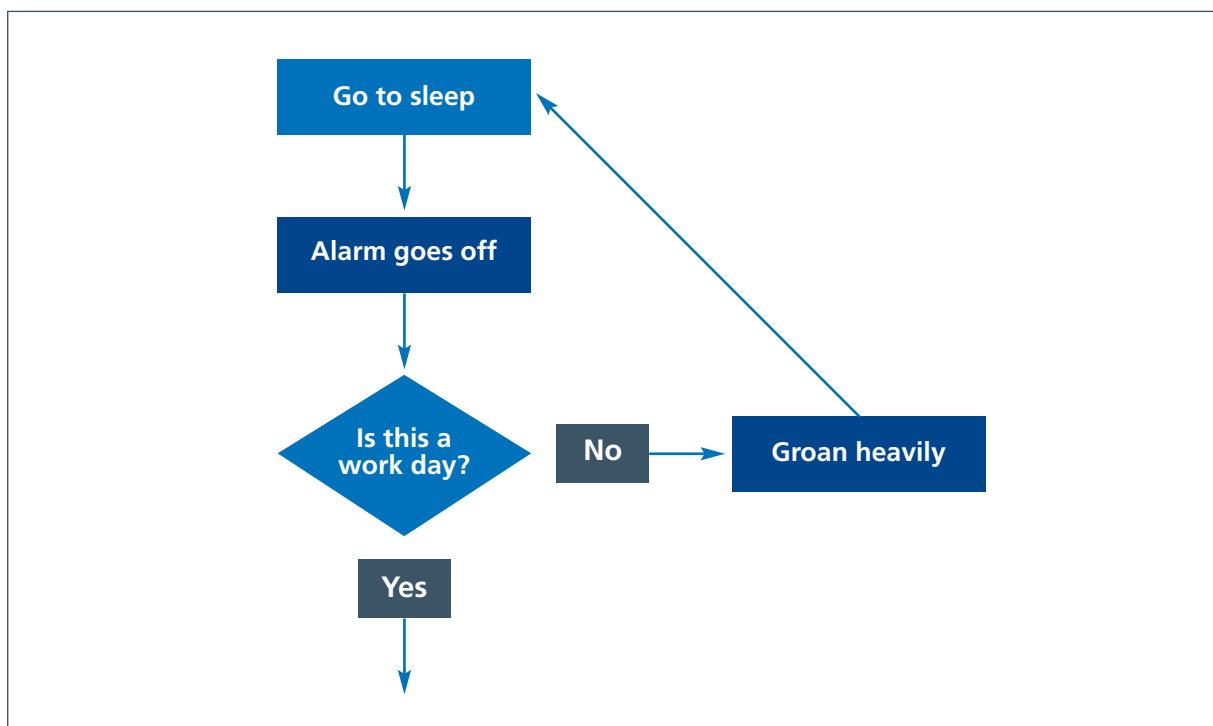
It can be very useful to start with a high level process map of say, five to 10 steps, which you set a time limit to achieve (eg 20 minutes). Define the start and end of the process you are looking at as this helps to establish scope, to identify significant issues and to frame the more detailed map.

**Figure 1**



You don't need to use lots of symbols. The example below representing steps for getting up in the morning has been drawn using only a box (representing the task or activities of the process), a diamond to indicate a question or decision point and an arrow to represent the direction of flow:

**Figure 2**



## Producing a detailed process map

For complex processes, you may follow the simple process map with a more detailed process map, identifying all steps and rework loops. It is also helpful to establish roles and relationships within the more detailed process map, which can be used again in a later phase to show the impact of your improvement and redesign work.

These questions will help you analyse your map:

- How many steps are there?
- How many hand offs are there? (Where a patient's care transfers from one person or department to another.) Are any of these unnecessary?
- Could some tasks be carried out by one person instead of several people?
- Is there any duplication of work?
- Are there any bottlenecks?
- How much error correction/rework is being carried out?
- How long does each step take?
- What is the approximate time between each step?
- Which tasks help to achieve the purpose and which ones do not? Can those that don't add value to patients be removed?
- Are we doing the right things in the process?
- Are we doing things in the right order?
- Is the right person doing it?
- What information do we give to patients at what stage and is the information useful?
- Should some tasks that are performed as part of another process be performed here?

### TIPS

**Let your process map cross functional boundaries: you want to see the whole, end to end process, not just the piece of the process inside your department.**

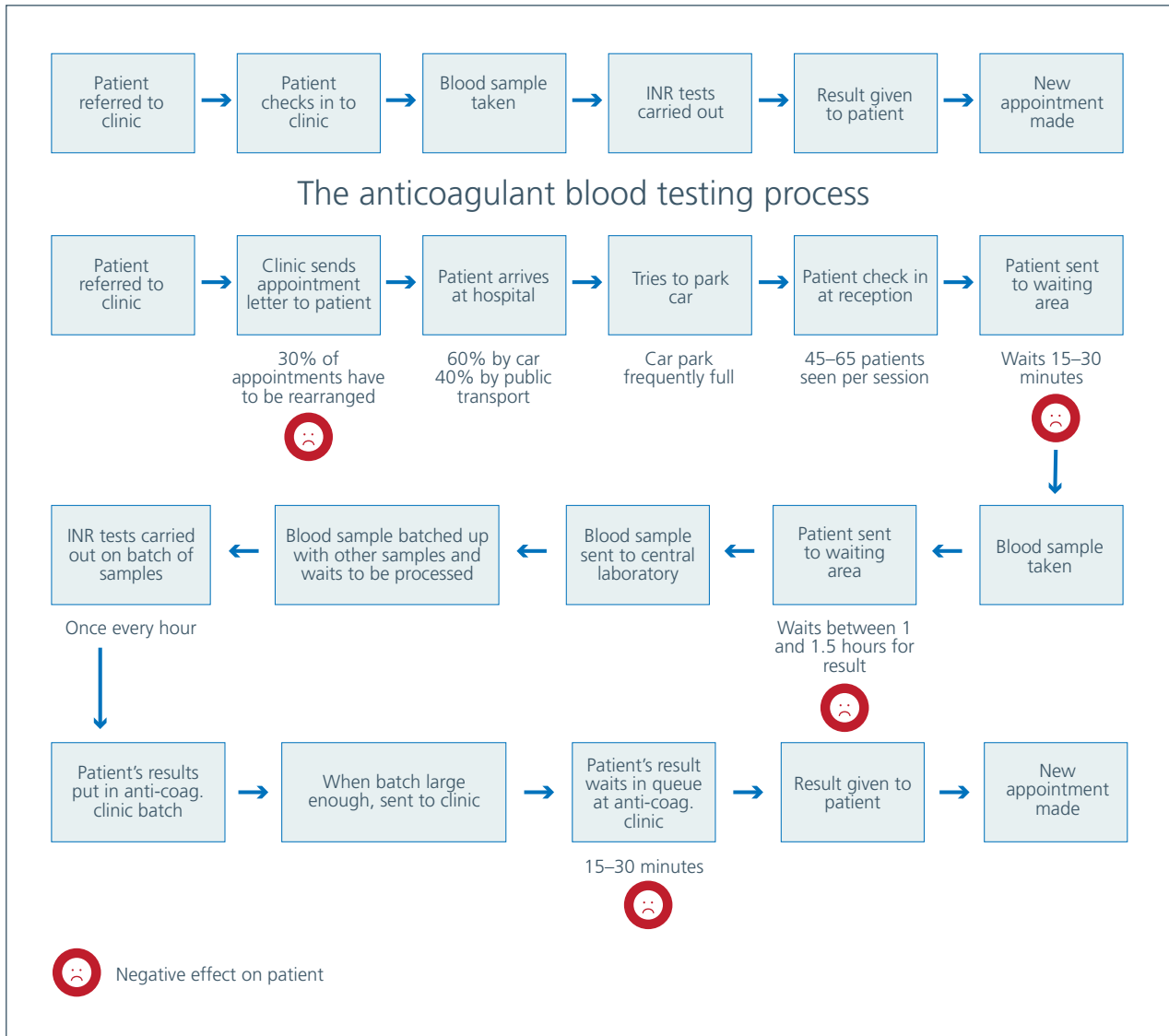
**Remember that improving one department or section does not always improve a service that flows through several departments. It is just as important to manage the interactions between departments as it is to manage the actions inside each department.**

**Always map what actually happens in the current process (current state) rather than what you would like to be happening or what should be happening. You can start the session by mapping the ideal pathway and then moving to map the current state or vice versa.**

## Examples

Below is an example of a high level map followed by a detailed process map, which looks at the anticoagulant blood testing process carried out in a major hospital.

**Figure 3: The anticoagulant blood testing process**



## What next?

Once the process map has been drawn, the next step is to identify where the process can be improved by redesigning or removing elements of it.

The key to success is to keep the patient at the centre of your plans and to consider the potential for a ripple effect through the organisation. Getting your part of the system right does not help the patient if another part of their journey is made worse as a result.

Testing your ideas for improvement will help to show potential unwanted side effects of your changes. Using the [PDSA](#) cycle will help you understand the potential impact of a change.

Here are some suggested change ideas for this phase of work:

- Co-ordinate the patient process of care.
- Pre-plan and pre-schedule care at times to suit the patient.
- Reduce the number of times a patient has to travel to visit the hospital or surgery, including the number of outpatient appointments.
- **Reduce unnecessary waits** and times when work is piled up.
- Pool similar work together by sharing staff and resources and reduce the number of queues.
- Extend staff roles, possibly as a [role redesign](#) exercise.
- Undertake capacity and demand work to help you understand and deal with your bottlenecks.

## Background

Conventional process mapping has its origins in the manufacturing industry. The foundation of this guide originates from the NHS Modernisation Agency, the NHS Institute for Innovation and Improvement, the National Clinical Governance Support Team and the learning and experience of work by NHS organisations. Lean and Six Sigma also influence approaches to mapping pathways, procedures and work processes in healthcare.

Also see the publication *Seven Ways to No Delays*.

## References

Damelio, R (2011) *The Basics of Process Mapping*, 2nd edition, CRC Press (Taylor and Francis Group)