NICE National Institute for
Health and Care Excellence

Medicines & Technologies programme: adoption team

Mapping care pathways

Adopting new health technologies can be very complex. Introducing new technologies into existing care pathways may require additional training, and there may be potential staffing and organisational changes if care pathways need to be changed to accommodate the technology. However, redesigning care pathways may provide opportunities for cost savings and more efficient processes to be adopted, as well as potentially leading to better quality of care.

Process mapping is a well-established method of not only finding the best fit for a technology in a care pathway, but also identifying opportunities for improvement in the existing pathway. It provides an opportunity to capture each part of the patient journey in detail and to understand the technology's potential impact on both patients and the organisation.
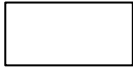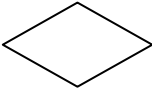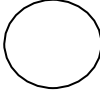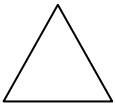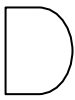
Where process mapping is used for integrating a new technology, it generally has 2 stages: the first stage is to map the current state; that is, to understand what happens, where it happens and who is involved; the second stage is to determine what changes need to be made to best integrate the technology into the pathway. When process mapping, involve the entire implementation team and ensure that everyone involved is represented.

Stage 1

Identify start and end points before mapping the steps in the care pathway, and map them as they usually happen in current practice (that is, not as they would happen in an ideal scenario). It is important to capture if particular staff grades perform certain tasks or decisions throughout the pathway.

Using Post-it notes or a digital equivalent is a useful way of organising the information, allowing aspects of the pathway to be rearranged as the mapping progresses. Keep it simple: too much detail early on can be overwhelming and confusing. If more detail is needed on a particular action, it is easy to produce a separate chart showing the process taking place within.

Having reached a consensus on the process map, begin to construct a flowchart using software such as Excel or PowerPoint. Standard symbols should be used for process mapping. The most common of these are shown in the table overleaf.

Symbol	Meaning
▭	Activity or task
◇	Decision
→	Handling, transport or movement of material
○	Measurement, quality check or inspection
△	Storage or filing
D	Delays

Stage 2

This stage aims to guide the team through process mapping, using the questions below to help them get the necessary details. Asking these questions will help the team to decide where the technology will fit in the care pathway and what changes to the pathway are needed (as well as to identify any potential process improvements).

What needs to happen?

- Identification of patients for whom the technology is suitable (consider selection criteria and contraindications, and ensure how and when referrers are going to be made aware of any process changes).

- Identify how staff will be trained and ensure the correct skill mix for the necessary activities or tasks.

- Check if the technology is available or identify how to access the technology.

- Consider removing steps from the pathway and also if making these changes will have an effect on capacity.

- Incorporate any existing policies and procedures.
- Identify changes to follow-up care and onward referral.

How should it be done?

- Protocols and flowcharts should be developed and shared with the appropriate staff.
- Identify and provide suitable staff training.
- Address any issues around storage and access (such as storage of the technology and patient records).
- Consider procurement of the equipment and consumables.
- Identify any documents (such as referral forms) relating to the clinical pathway.

When should it be done?

- Identify the appropriate point in the pathway to introduce or start using the technology.

Where should it be done?

- Consider if a specific environment is needed for the technology to be used, and if the environment needs to be configured to accommodate the change.

Who will do it?

- Ensure that it is clear who is responsible for the procedure or using the technology.
- Ensure that it is clear who is responsible for maintaining the technology.

Following process mapping, a PDSA (Plan, Do, Study, Act) model is an option that can be used to implement any changes and measure improvement.

- Plan: identify improvement areas and obtain senior management sign-off.
- Do: implement the amended care pathway and start using the technology.
- Study: collate and analyse data before and after the changes were made.
- Act: plan the next change or phase of implementation.

Further implementation support and resources are available from the NICE website.

The information presented here represents the key points of NHS learning shared with the adoption team during the development of this resource.