NHS
Institute for Innovation and Improvement

The Productive Operating Theatre

Building teams for safer care™

Handover

Version 1

This document is for theatre managers, theatre matrons, recovery matrons, theatre, recovery and ward staff, surgeons, anaesthetists and improvement leads

The Productive Operating Theatre: Building teams for safer care™ – Handover **is published by the NHS Institute for Innovation and Improvement, Coventry House, University of Warwick Campus, Coventry CV4 7AL.**

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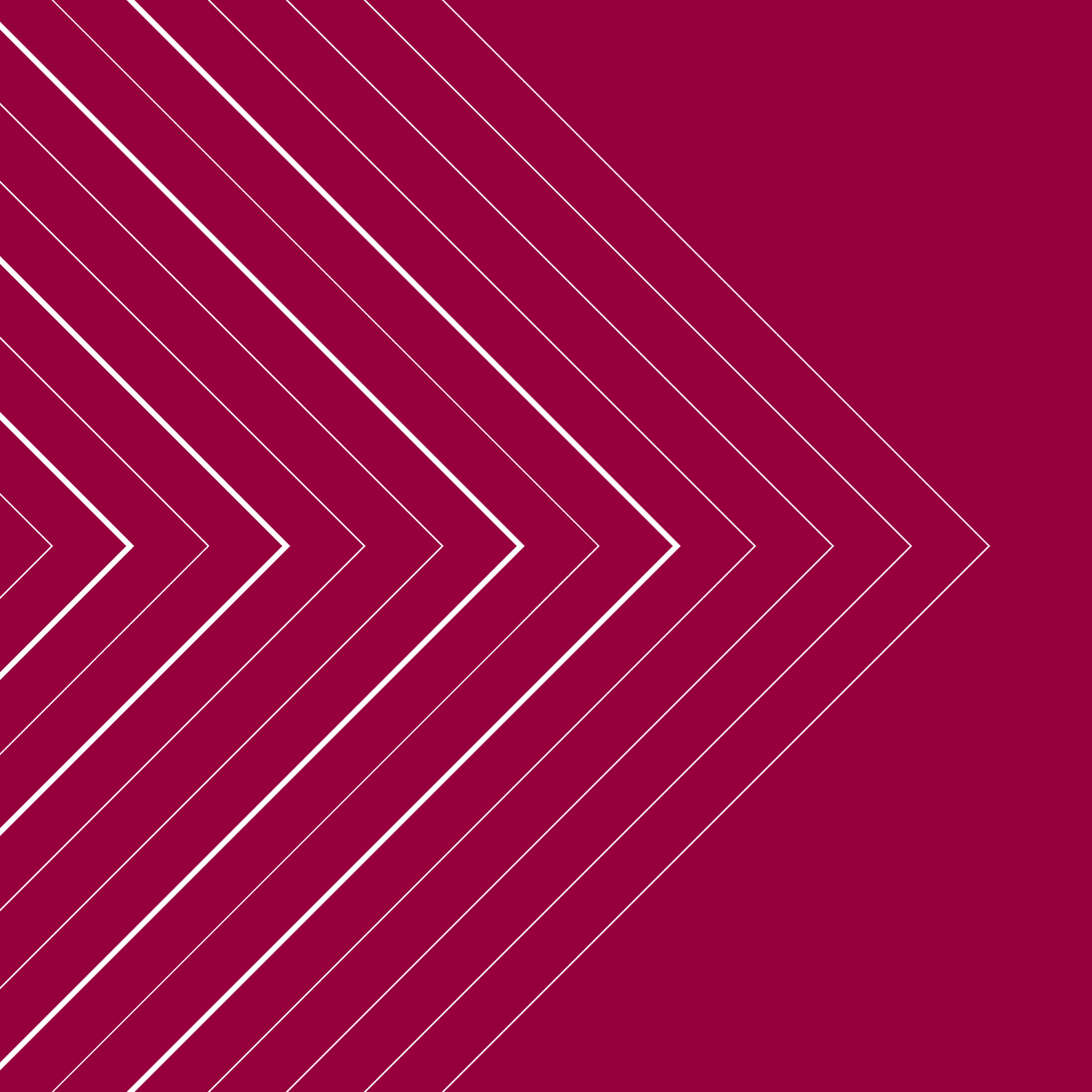
Knowing how we are doing
Anaesthetic Handover tip
Pro forma
Anaesthetist to
ABC
Start of Handover process
Patient name



The Productive Operating Theatre

Handover

Purpose of this module

The process of handover occurs at several different stages of the surgical patient's journey. It involves the transfer of responsibility for care and information to support care. The handover processes play a fundamental part in ensuring patient safety. The risk of errors is substantial, particularly errors of omission (missing information). This module will help you introduce improved procedures for handovers to ensure reliable, timely and accurate transfer of information in order to enhance the safety and quality of your patients' care through their surgical journey.

There are many handovers in the pathways depending on your local process for elective surgery:

- outpatients to preoperative assessment
- ward nurse to theatre team
- anaesthetist to recovery staff
- scrub nurse to recovery staff
- recovery staff to ward or ITU staff.

This module also addresses handover of operational responsibility, eg at the change of a shift.

The Handover module provides a structured approach that will help you review your current handover processes. It will help you and your team to identify where you can make improvements by introducing structured handover frameworks and checklists. It will help you to adapt and implement ideas to suit the particular needs of your theatre department at each step of the handover process.

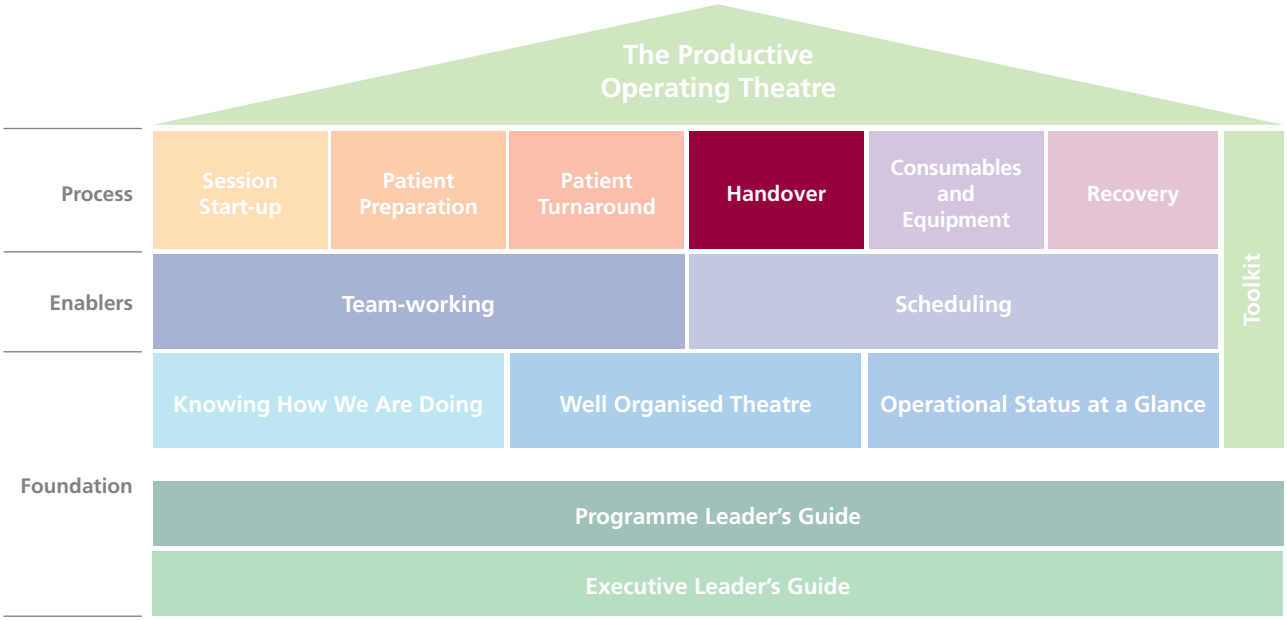
Getting handover right offers significant benefits across all four domains of quality:

- team performance and staff wellbeing
- safety and reliability of care
- value and efficiency
- patient's experience and outcomes.

'I have no doubt that providing the recovery staff with the information that they needed to know rather than what I thought they should know, has improved the handover significantly.'

David Conn – consultant anaesthetist, Royal Devon and Exeter NHS Foundation Trust

These modules create The Productive Operating Theatre



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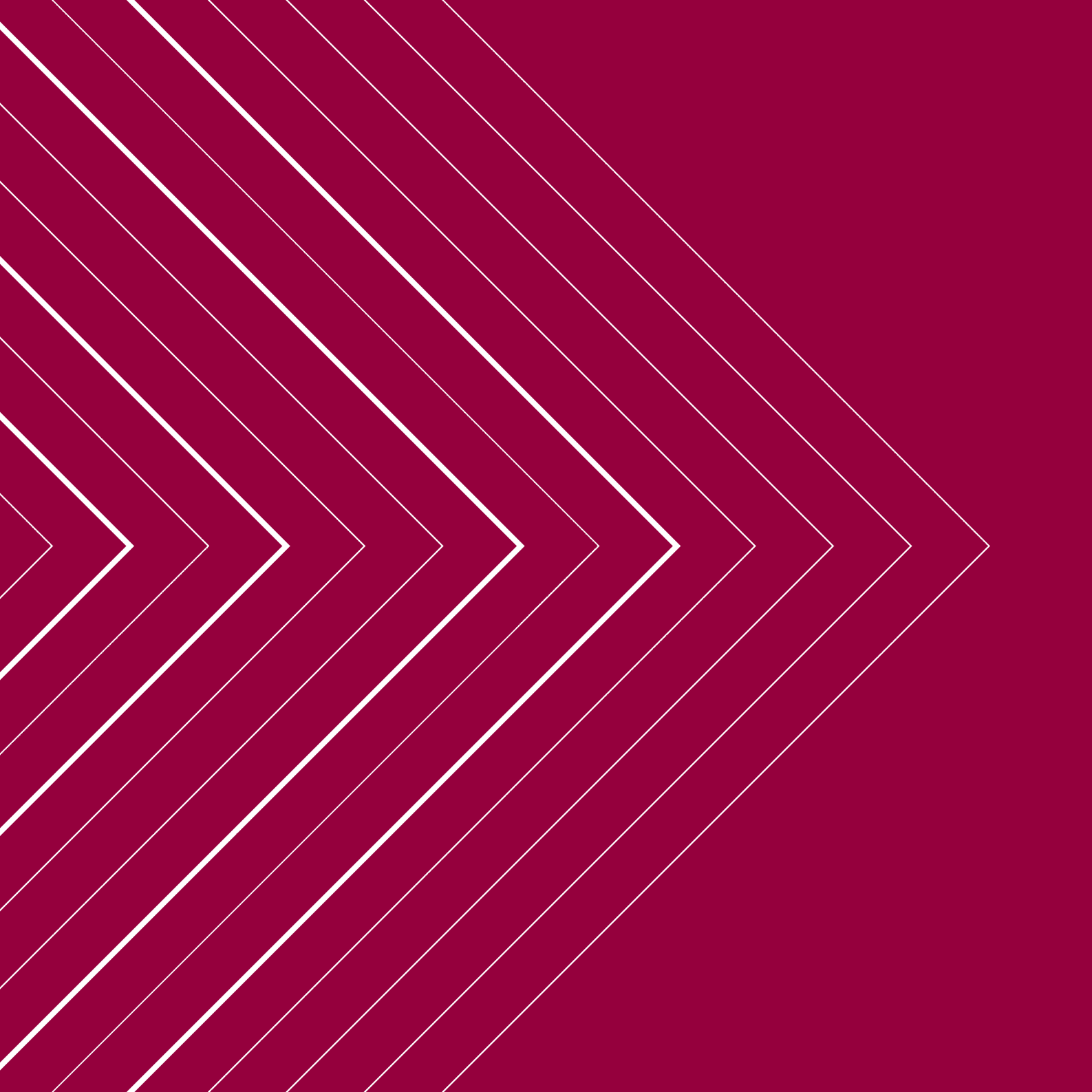


1. What is the Handover module?

What is it?
Handover occurs frequently at several stages in the patient's pathway. This module provides a practical and structured way to help you to improve the process of managing handovers, ensuring that relevant information, documentation and plans for further management (short and long term) are effectively and safely transferred from one clinician to another. Communication is the key to ensuring excellence in handover.

> *'Clinical handover is the transfer of professional responsibility and accountability for some or all aspects of care for a patient or group of patients, to another person or professional group on a temporary or permanent basis.'*
>
> **National Patient Safety Agency**

For the purposes of this module, there are two main types of handover.

- **Clinical handover**: transfer or escalation of responsibility for a patient, or group of patients, eg recovery staff to ward staff.
- **Operational handover**: transfer of management or leadership, roles and responsibilities, eg from night shift to day shift.

A good handover can:

- improve patient outcomes
- can help avoid errors
- reduce repetition
- increase safety
- improve patient satisfaction
- improve efficiency.

Why do it?

To give patients safe, reliable and dignified care by:

- reducing missing and inaccurate information
- taking a patient-focused approach
- releasing staff time for direct patient care.

To improve the experience for staff by:

- reducing repetition in recording and transfer of information
- reducing inaccuracies and ensuring clarity
- minimising the time staff spend looking for information
- maximising time for direct patient care
- improving staff confidence through their understanding of the patient pathway
- clarifying roles and responsibilities.

What it covers

This module will help you improve your handovers by focusing on:

- the format and content of a 'good' handover
- how to identify improvements and implement changes
- the best place in the pathway and location for handing over key information
- who should be involved
- what tools to use
- how to evaluate your improved handover
- sustaining improvements and scaling-up across your organisation.

What it does not cover

This module will not prescribe what your solution should be. It will help you to analyse your current handovers, decide what a good handover process should look like and help you design and implement your own procedures. It will provide examples of what other trusts have implemented to help stimulate your team to do this for themselves.

The communication tool: SBAR (Situation, Background, Assessment, and Recommendation) is a very useful starting place for developing handover procedures. It is useful both for ad hoc handovers and for escalation of a crisis situation. However, it is not covered in this module since the implementation of SBAR is covered in detail in the Team-working module (section 7, page 101). For more on SBAR see also www.institute.nhs.uk/safercare


Plan
Do
Handover
Version 1
Executive Leader's Guide
Programme Leader's Guide
Knowing How We Are Doing
Well Organised Theatre
Operational Status at a Glance
Toolkit
Handover
Will help teams focus on the safe and efficient transferral of patients from one function to another.
Looking at the essentials of the schedu
Foundation module box set
Foundation module box set DVD
The Productive Operating Theatre
Building teams for safer care
Team-working
Version 1
Patient Turnaround
3. Confirm collectio and display

Important links

All the modules within The Productive Operating Theatre link together to achieve the programme's aims. Some however, are more interdependent than others. The Handover module links particularly closely with the modules listed below.

- ***Recovery***: the Handover module is closely linked to the Recovery module, as the recovery team are involved in key handover activities:
  - from ward staff to recovery / theatre preoperatively
  - from the anaesthetist postoperatively
  - from the scrub practitioner postoperatively
  - to the ward staff post-recovery.

- ***Team-working***: understanding the importance of team working and introducing techniques to improve communication enhances multidisciplinary team-working. Particularly applicable to the Handover module are the tools used in Team-working to improve communication, eg SBAR. This module will help your team to understand and improve team-working within their department, and with external teams and individuals.

- ***Knowing How We Are Doing***: collecting, analysing, and reviewing your measures are vital to understanding if the changes you are making are having an impact. Using this module will support you and your team in creating a balanced set of measures that will be useful and relevant, and close to real time, so they can identify the impact of the changes made in handover.

- ***Well Organised Theatre***: helps the team organise their workplace better to support the handover processes. By simplifying your workplace and reducing waste, it will help you ensure that you and your team have everything in the right place at the right time ready to go.

- ***Operational Status at a Glance***: the principles of creating real-time visual management tools that can help you display the operational status of your department will support handover of responsibility, eg theatre coordinators.

- ***Patient Turnaround***: recovery staff are critical to ensuring a smooth transition between patients in the theatre suite, and can support this module by establishing systems to receive and collect patients from the operating theatre immediately postoperatively.

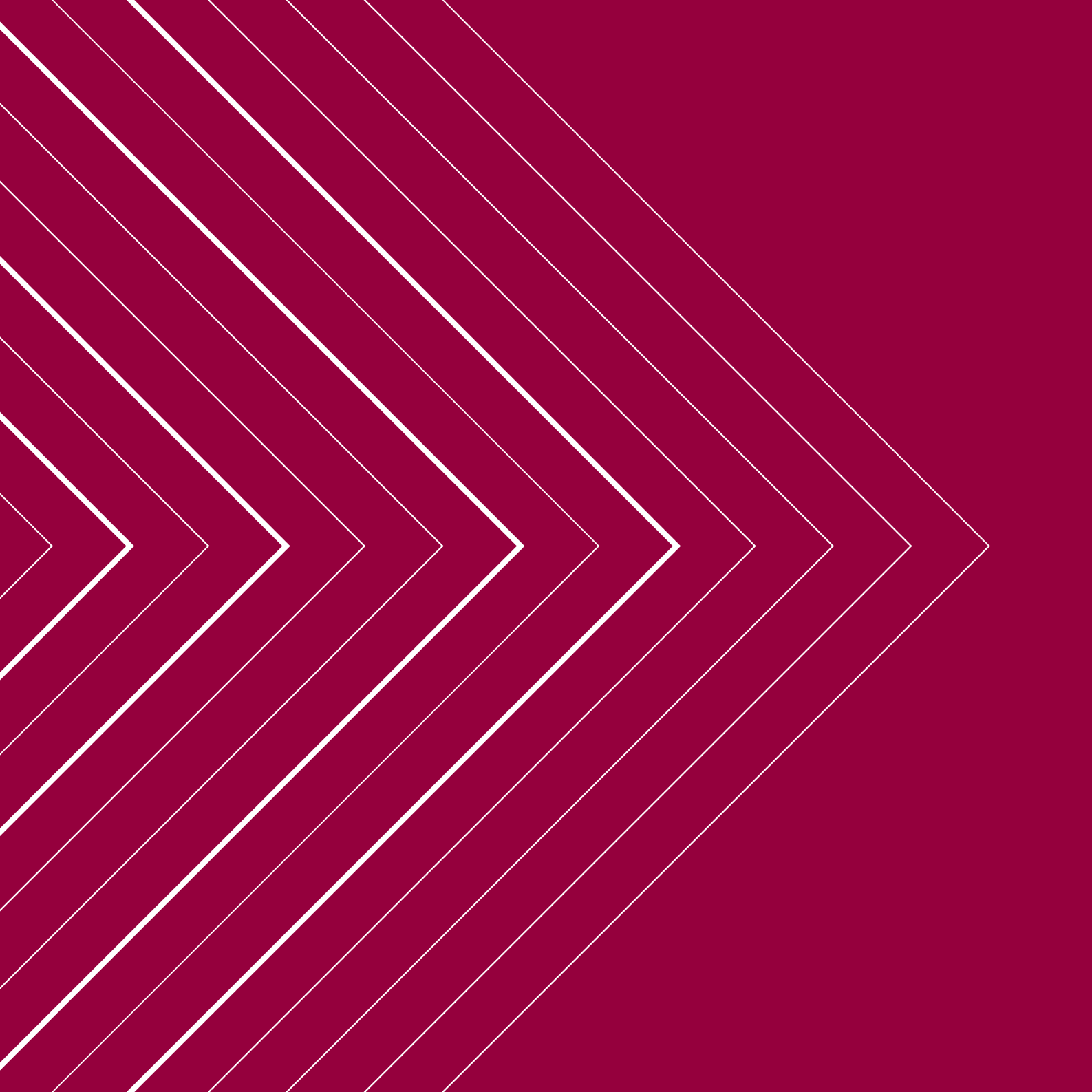
Learning objectives

After completing this module it is expected that your team will:

- understand the importance of effective handovers in supporting high quality patient care
- recognise the potential for errors in transferring information at different handover points, especially errors of omission
- understand how standardising the procedures for handovers reduces errors, mistakes, omissions, saves time and improves safety
- have an awareness of the nationally or locally agreed standards and guidelines for transferring care
- learn how to develop new handover tools such as checklists and proformas to ensure safe robust processes are in place and will help save time
- understand how to sustain the improvements they have made
- develop a culture of continous improvement.

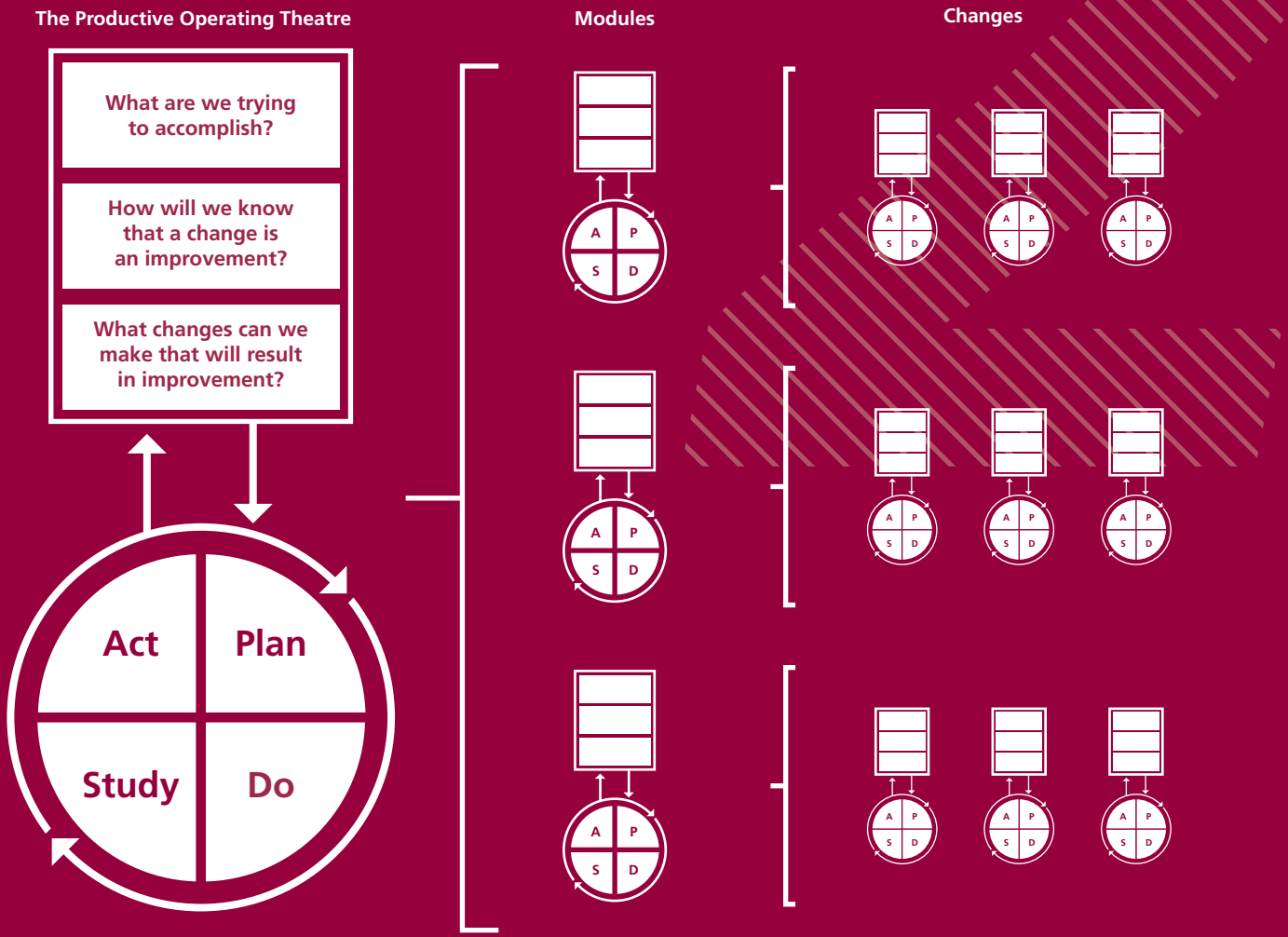
What tools will you need?

Tool	Toolkit section reference number
Meetings	1
Dot voting	2
Audit planning	3
Interviews	7
Photographs	8
Video	9
Process mapping	11
Module action planner	13
Timing processes	16
5 Why analysis	18
Glitch count	20



2. How will you do it in your theatre?

This module is structured to help you work through the model for improvement[1]. Within the module you will implement many smaller changes, developing and testing each one through small cycles of the model. The cumulative impact of these changes will come together to achieve the overall aims of the Handover module. This, along with changes that are made within each of the other modules within the programme, will contribute to achieving the overall aims of The Productive Operating Theatre.

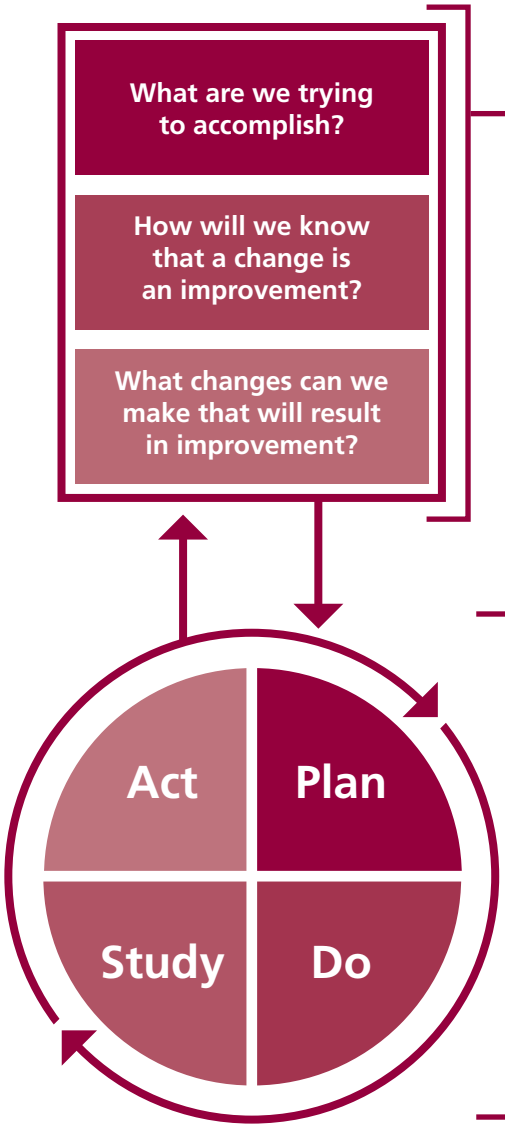


[1]Langley G, Nolan K, Nolan T, Norma C, Provost L. (1996)
The improvement guide: a practical approach to enhancing organizational performance.
San Francisco: Jossey-Bass


FIRE
EXIT

How will you do it in your theatre?

The model for improvement



The three questions

- Read the module, watch the Handover DVD
- Agree and communicate a clear aim
- Identify module measures
- Identify changes that could be made

Plan

- Ensure strong and visible leadership
- Create the team
- Communicate, engage and raise awareness
- Understand your current state
  - Gather and review relevant data
  - Gather feedback from staff
  - Understand how long individual activities take
  - Gather information about issues and problems
- Review ideas that have worked elsewhere

Do

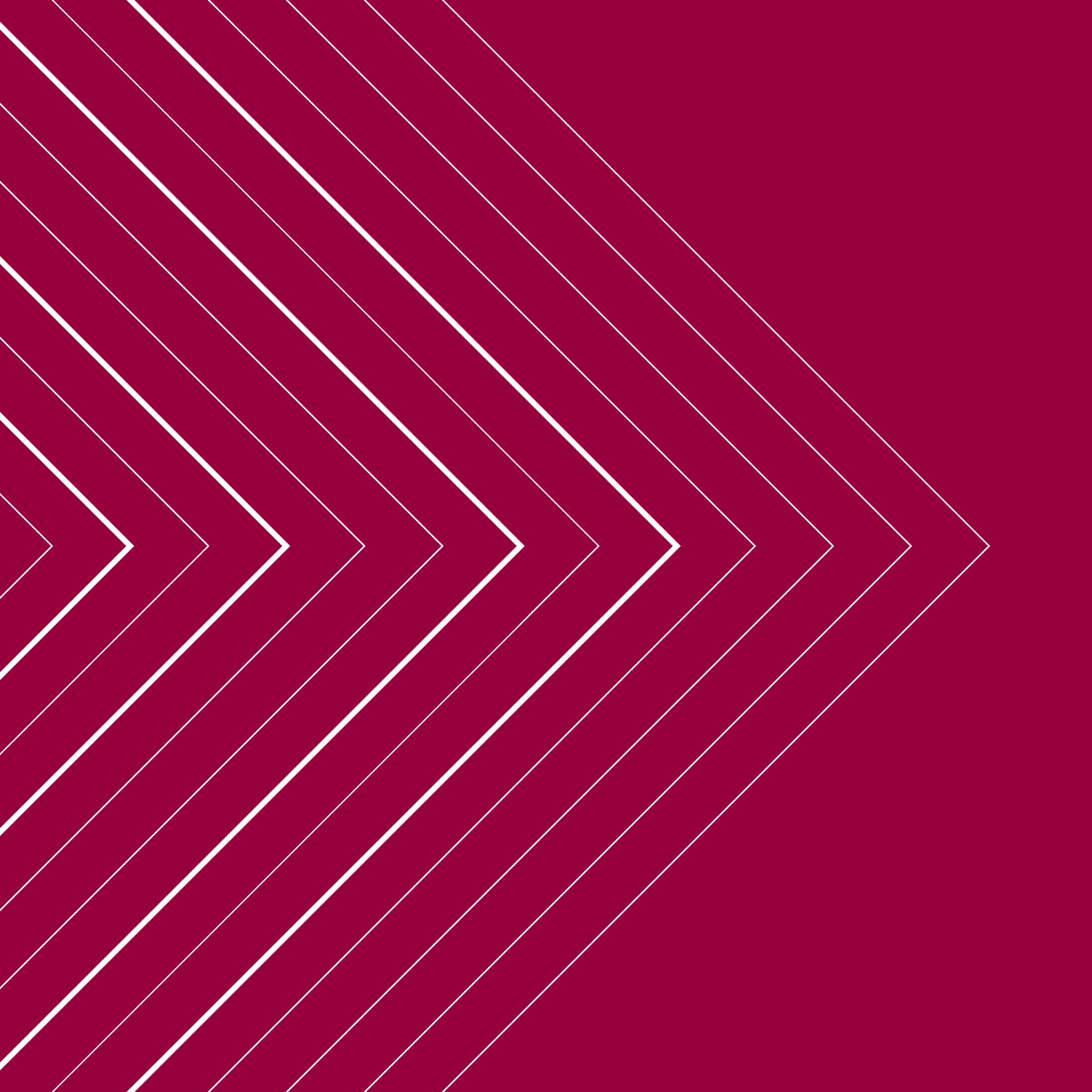
- Map the future state
- Agree and prioritise potential solutions
- Create an implementation plan
- Test the changes
- Monitor progress
- Support the team through the changes

Study

- Collect, analyse and review feedback and data
- Assess the impact on your key measures
- Communicate progress

Act

- Agree whether to adopt, adapt or abandon the change
- Celebrate and share successes
- Continue to monitor and review
- Sustain the changes
- Plan for scale-up

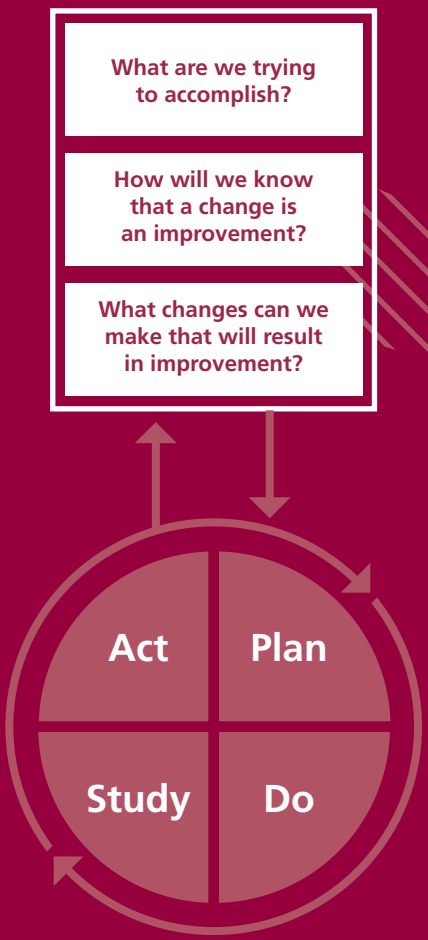


3. The three questions

Before you start to implement the Handover module, it is important to make sure that you are clear about what approach you are going to take.

Take time to read through the module carefully, and watch the DVD, in order to understand the full scope of what is involved. (The DVD is available in your box set or as an online resource at **www.institute.nhs.uk/theatres_resources**)

Work through the three questions from the model for improvement. These questions and your answers to them will provide you with a foundation upon which to base your Handover improvements



1. What are we trying to accomplish?

The main idea in answering this first question is to provide an aim for your improvements that will help guide you and keep your efforts focused.

Think about how the Handover module will contribute to achieving both your local vision for The Productive Operating Theatre and the overarching aims of the programme to improve:

- patient's experience and outcomes
- safety and reliability of care
- team performance and staff wellbeing
- value and efficiency.

As a team set an aim for what you want to achieve from this module according to **SMART** principles

Principles for setting a **SMART** aim:	
Simple	give the aim a clear definition (eg the person receiving handover has all the information they need to take over responsibility)
Measurable	ensure that data is available
Aspirational	set the aim high to provide a challenge to the team but ensure that it is achievable
Realistic	take into consideration factors beyond your control which may limit your impact
Time bound	set a deadline

You have already developed a vision for your programme; ask yourself how the Handover module can contribute to achieving your vision. Record your thoughts on a flipchart.

Once agreed as a team, communicate the module aim on your Productive Operating Theatre notice boards showing how the aims of this module link to your vision.

'As a junior member of staff it was a fantastic experience to be included in the The Productive Operating Theatre programme. It made me feel part of the team and it was wonderful to have my opinions listened to. It has really helped me to understand the requirements of the different specialities associated with theatres.'

George Baker – theatre practitioner, Royal Devon and Exeter NHS foundation Trust


EMERGENCY DRUGS
THROAT PACKS
LOTIONS AND SPRAYS
O Nathwani

2. How will we know that a change is an improvement?

This second question builds on the work you have done in the Knowing How We Are Doing module. It is about monitoring and measuring the impact of the changes you make. If you make a change and your measures start improving at around the same time, it is likely that the change led to the improvement.

Measuring the impact of the changes you are making is really important to enhance your team's learning. It allows you to quantify the improvements you have made, which will generate further enthusiasm and support for the programme. It also enables you to identify changes you have made that have not had the desired effect, highlighting where you need to modify your approach.

As part of Knowing How We Are Doing, you will have agreed a balanced set of measures across the four programme aims. How will your improvement from the Handover module be represented in this set of measures?

Module measures session

To explore this further you may wish to run a Handover measures session with the team that is going to be involved with the module. A suggested set of slides for this session is available at www.institute.nhs.uk/theatres_resources

The aims of this session are to:

- refresh the team's understanding of how to use measurement to drive improvement
- understand how the Handover module fits into your agreed balanced set of measures
- identify measures for the module
- decide how to collect, analyse and review the information – try to make this as 'real time' as possible in order to make it more meaningful for the team
- complete a measures checklist for the module.

Once agreed, start collecting, analysing and reviewing data for your balanced set of measures. Remember to share the progress on your Knowing How We Are Doing board.

Remember your measures can be both qualitative, such as asking staff and patients their opinions, and quantitative, such as how often all the information required has been transferred.

Example measures

Here are some ideas of measures for Handover. You may already be collecting some of these – your choice may also be influenced by other specific issues within your own area.

- The time taken for each handover to be completed
- Responses from a questionnaire asking staff what their level of confidence is when they take over responsibility for care
- Number of incidents related to information transfer on handover
- Glitch counts, eg returning to the ward when essential documentation is missing.
- Missing information

Remember – keep it simple. Choose one or two key measures at first – too many measures will be difficult to manage.

For more examples of measures see Knowing How We Are Doing – Appendix 2.
For more examples of how to present handover data see Measures supplement
www.institute.nhs.uk/theatres_resources

3. What changes can we make that will result in an improvement?

Having read the module, agreed on a clear aim and set in place measurement systems to identify improvement. Start to identify the changes that you could make within your department that may result in improvements in your handover processes.

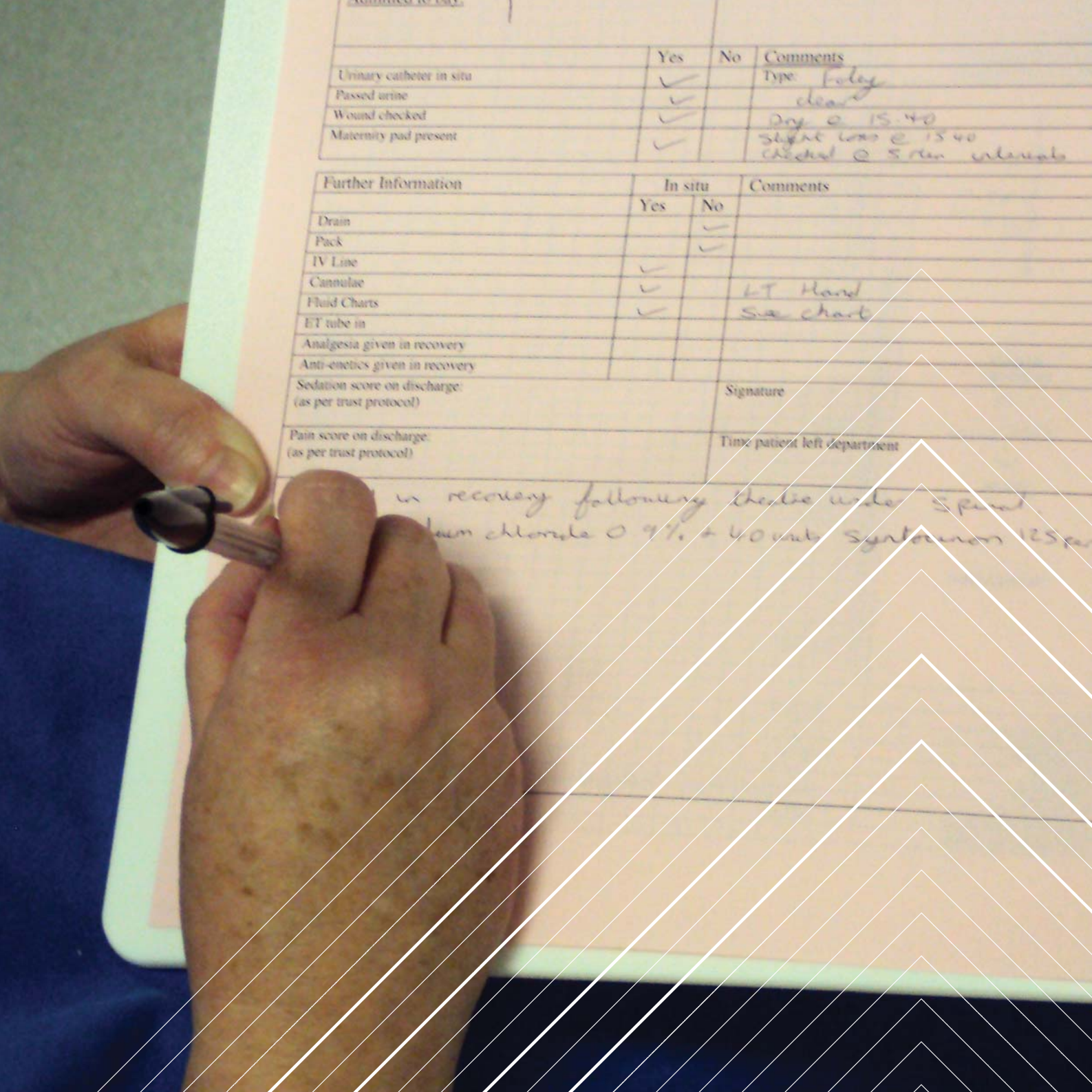
You will have an overall idea of what you want to achieve from this module but the detail of what and how you can achieve it will become clear through your diagnostic work, such as your data collection and analysis, and process mapping. With your team, think through and agree a number of different solutions for improving the different handover processes in your test theatres, and subsequently right across your organisation. Then agree how you will test these ideas through a series of **Plan Do Study Act (PDSA)** cycles that will test a variety of approaches. Involve your service improvement or lean facilitator right from the start.

In the next section, **Plan**, you will find some examples of changes that have been shown to work in other sites. However, the success of this module in your organisation will depend on the current state of your procedures and the constraints you are working with, both physical and cultural.

Involving your team, developing meaningful data and generating enthusiasm will be the key to your success.

'Sometimes the handover from the anaesthetist or scrub practitioner wasn't as informative or complete as it should have been. With the implementation of the new handover proformas, I now have more structured criteria and a clearer understanding of our roles and responsibilities.'

Melissa Lucas – recovery staff nurse, Royal Devon and Exeter NHS Foundation Trust



	Yes	No	Comments
Urinary catheter in situ	✓		Type: Foley
Passed urine	✓		clear
Wound checked	✓		Dry @ 15.40
Maternity pad present	✓		Slight loss @ 1540 Checked @ 5 min intervals

Further Information	In situ		Comments
	Yes	No	
Drain		✓	
Pack		✓	
IV Line	✓		
Cannulae	✓		LT Hand
Fluid Charts	✓		See chart
ET tube in			
Analgesia given in recovery			
Anti-emetics given in recovery			

Sedation score on discharge: (as per trust protocol)	Signature
Pain score on discharge: (as per trust protocol)	Time patient left department

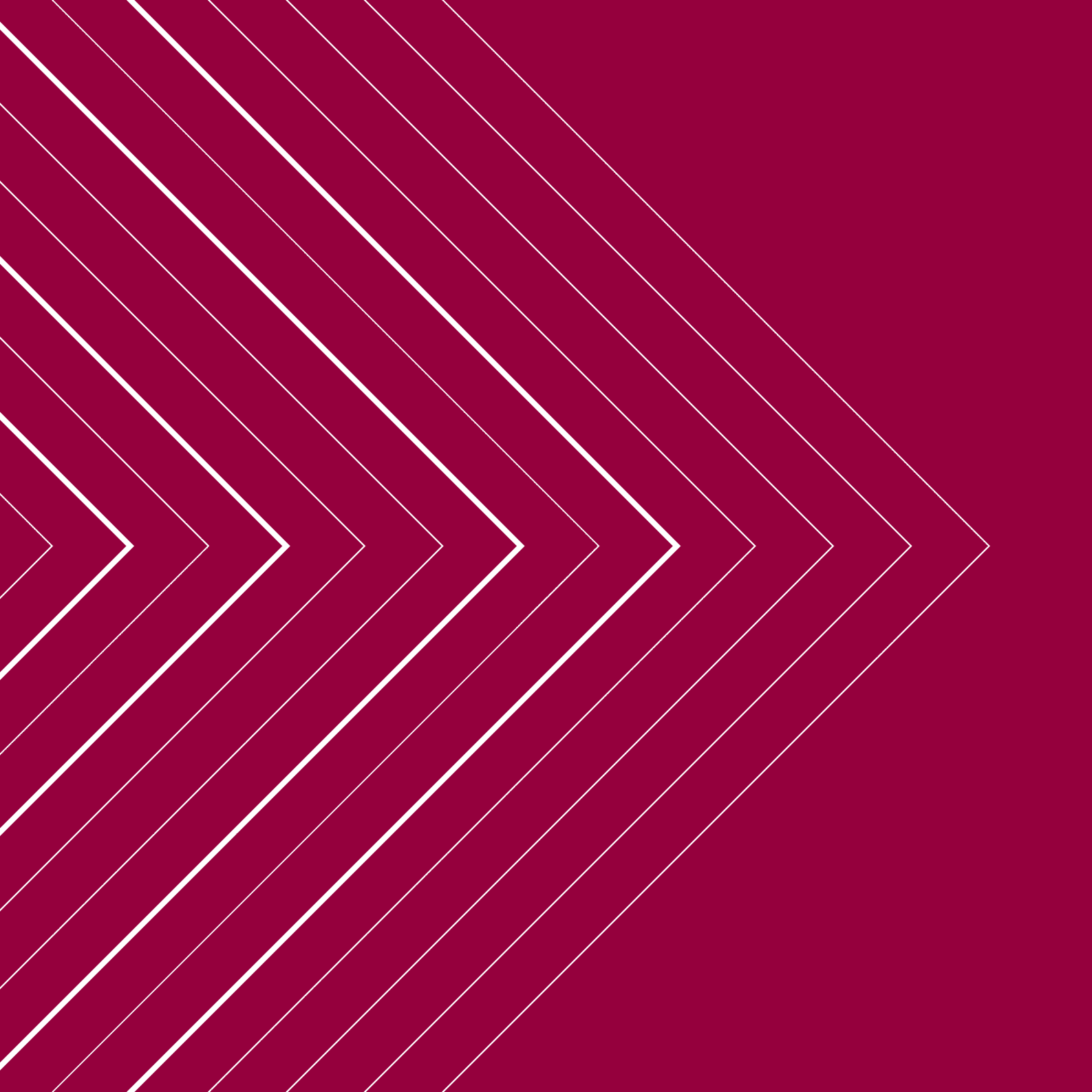
in recovery following theatre under [illegible]
sodium chloride 0.9% + 40 units Syntocinon 125ml

The three questions – milestone checklist

Move on to **Plan** only if you have completed **all** of the items on this checklist

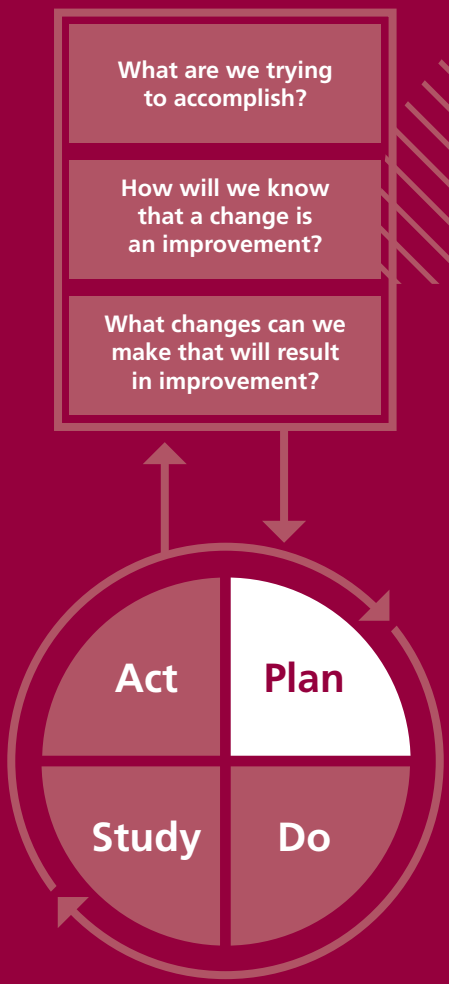
Checklist	Completed?
Read the Handover module and watched the DVD	
Agreed and communicated a clear aim for the module	
Held a module measures session	
Have identified module measures using Knowing How We Are Doing	
Thought about and discussed what changes you will make	

Effective team-work checklist	Tick if yes
Did all of the team participate?	
Was the discussion open?	
Were the hard questions discussed?	
Did the team remain focused on the task?	
Did the team focus on the area / process, not individuals?	



4. Plan

There are a number of steps to work through to help you plan tests of change using Plan Do Study Act (PDSA) cycles for implementing the Handover module.



Ensure strong and visible leadership

Safe, effective communication and transfer of information during the patient's surgical journey is crucial to a high performing operating department. Improvements implemented in Handover will involve the whole multidisciplinary team. You will need engagement and support from your multidisciplinary team to be successful.

Executive and clinical leadership will be critical to your success. They should help you to achieve the engagement you need. We suggest the following actions that can help you:

- discuss implementation with your executive leader and senior clinicians
- ensure executive support and visibility for this module
- discuss how you will implement all the steps below, and any support you may need
- discuss how your executive leader will support this work
- discuss any external support you may require from the NHS Institute.

'The Module has given us the opportunity to really look at where we are, what we are doing and how we can improve. The data collection although may be seen as tedious at times is vital in driving the improvement. It is so important that the Recovery Staff have the full support of the Leadership Team to enable them to implement and sustain changes.'

Lyn Willmott – senior recovery matron, Royal Devon and Exeter NHS Foundation Trust

Enablers for a successful Handover module:

- are your senior team such as clinical director, directorate manager and matron engaged and supportive? For example, your clinical directors will help clinicians to find time to develop solutions to support improved handover.

- have your senior theatre practitioners, coordinators and team leaders understood the importance of effective handover? Are they driving this and working with their teams to find 'real time' solutions?

Create the team

You will need to identify a team of staff involved in the handover processes, both providing and receiving information at handovers. The team will need to work together to understand their current way of working, identify what changes could be made and implement improvements. You should include the champions identified at your visioning workshop in this team. (For more information about the visioning workshop see Programme Leader's Guide page 63).

Consider involving your:

- ward nurse from surgical ward
- senior theatre nurse / operating department practitioner
- anaesthetist with responsibility for recovery
- senior nurse / operating department practitioner from recovery
- junior nurse / operating department practitioner from recovery
- programme leader.

It is very useful to have someone with service improvement expertise in your team. They will support you in understanding your current processes and identify areas for improvement. They can also help you to implement standard processes to improve the reliability of handover.

This module links closely with the Recovery and Team-working modules. We would advise you to have at least one member of the Handover team involved in both Team-working and Recovery project teams to improve the opportunity for these modules to support one another in achieving their aims.

The team should meet regularly, (see Toolkit, tool no.1 Meetings) to give you with the opportunity to review your progress, data, any challenges and solutions and importantly, identify and agree your next steps.

Communicate, engage and raise awareness

As part of the Plan phase for this module, it is important that the multi-professional teams and individuals understand what you are trying to do, why it is important, and what benefits it will deliver. You can never communicate too much, so use several of the suggestions below to ensure your team are fully informed and feel involved and ready to go.

- Theatre and recovery staff meetings
- Medical staff audit meetings
- One-to-one discussions or meetings
- Posters
- Newsletters
- Information on your Knowing How We Are Doing board including aims, measures, quotes from clinical staff
- Email.

Capture quotes from your clinical champions to include in communications to the wider theatre team. Quotes are a powerful means of communicating positive messages, particularly from influential clinical staff.

Clinical engagement

Clinical engagement is crucial to this module (see Programme Leader's Guide, page 52). To ensure success, you will need to recruit and support clinical champions from each professional group. The visioning workshop provides a good opportunity to identify champions, (see the Programme Leader's Guide, page 29 for more information on selecting champions, and their role).

'Engaging consultant colleagues is probably best done by consultant colleagues. The simple act of sitting down over a coffee and explaining what we are trying to do won over a number of unexpected allies.'

James Clarke – consultant anaesthetist, Elective Orthopaedic Centre

Example: notice informing staff of module progress

Dear All,

We are now in the second phase of The Productive Operating Theatre programme. We are implementing Scheduling, Handover and Recovery modules.

At present we are looking at the patient Handover processes:

- ward to anaesthetic room
- anaesthetist to recovery
- scrub to recovery
- recovery to ward.

We have formed a group consisting of anaesthetists, ward, recovery and theatre staff. This team will look at the above handover processes and examine the way we work, the amount of information required at each process and what information we duplicate, and look at ways we can improve.

The team is in the process of filming a brief video of a number of handovers of patients during their surgical journey selected from Theatre 6 and 8, as this is where the focus of the module is. We have gained the patients' written consent to film them.

We have managed to film six patients and are hoping to film another four at least. In total we will have videoed ten patients to gain an overall understanding of our current state. Once we have tested and implemented our changes, we will revisit and film the process again to see what improvements have been made.

- I would just like to reassure staff that these brief video clips will be viewed only by a small group of staff representatives to explore the different Handover processes. This will help us to obtain a baseline of where we are now.
- It is not to judge people's individual performance.
- If others external to theatres wish to view these clips I will obtain individual consent from those members of staff who have been filmed. Once the project has finished the film clips will be destroyed.
- The video camera and film are stored in a locked and secure place.

If you have any concerns please just ask the clinical lead, service improvement lead or me.

Many thanks to staff who have given us permission to video them, ultimately it will benefit staff and the patients' experience by streamlining each process.

Kind Regards,

Understand your current state

To be able to progress with any improvement efforts, you need to first understand the 'current state' of the area that you are working on. This involves examining all aspects of the current situation and gathering information from a variety of sources. Reviewing this information before you begin will ensure that you focus your improvement efforts where they will have the most impact, contributing towards achieving your module aims. It will also ensure any changes you make are based on information, not simply anecdotal feedback, and that your improvement is driven and supported by data.

Understanding your current state will help you and your team to identify what you would like your new way of working to be – your 'future state'.

Gather and review the relevant data

As part of the second question, 'How will we know that a change is an improvement?' you will have re-visited the Knowing How We Are Doing module and agreed your measures for Handover. You now need to start gathering and reviewing the relevant data.

Ensure that you:

- gather your baseline data to support the measures that you have identified
- review all of the data in order to be able to understand the current state.

This information will also act as a baseline against which you can measure the impact of your changes. You may have already decided to collect some of the information as part of your balanced set of measures (see Knowing How We Are Doing module).

Examples of baseline data:

- establish what handovers occur in your operating theatres
- is there a standard procedure for each handover?
- feedback from staff surveys / questionnaires
- timing of handovers
- quality – measured through audit
- documentation completeness – measured through audit
- number of interruptions during handover.

For guidance about how to analyse and present your data see Measures supplement
www.institute.nhs.uk/theatres_resources

Gather feedback from staff

Feedback from staff is crucial to your improvement process. You may think that you know what your staff think, but until you ask them, do you really know? Staff are the experts in the handover process, and as such will be familiar with all the things that go wrong during the process. Staff in particular will be familiar with the frustrations that occur on a daily basis, which prevent them from doing their job as effectively as they would like. There are several ways of gaining meaningful feedback.

The Handover module provides a good opportunity to engage staff in improvement. Before you start the module ask them how they feel about:

- the way that handovers currently work
- what needs to change
- ideas for improvement.

One of the tools you can use to gain feedback from staff is Interviews (see Toolkit, tool no.7 for more information and top tips).

Additional ideas for interview questions include:

- what would help you feel more prepared and confident when accepting responsibility for the patient's care after the handover?
- what information is missing that you think you need?
- how could we improve the patients' experience?

Keep a flip chart up over a period of days to enable all handover staff to record their opinions. You could collate this feedback into a list of issues and gain consensus on the key issues through dot voting, (Toolkit tool no. 2). This will help you prioritise and make decisions on the key elements that work well and key issues for improvement.

Record processes and activities through video and photographs

Videoing handover processes is a powerful tool that enables staff to collect information, and is particularly useful when used to capture processes such as handover.

Videoing is a simple way to identify areas for improvement. It is much easier to recognise areas for improvement by watching a video as a team. Viewing a familiar process on screen forces you to see things from a different perspective and helps you to spot duplication and waste in the process.

This is not a tool to be used in an ad hoc way, it can be time consuming to set up and staff must be fully informed and aware of the process involved. Patients need to be fully consented – without this they can not be filmed. See Toolkit, tool no. 9 video, for more detailed information and useful top tips.

Tip: *When videoing, be conscious of what the viewer will see and hear, our first attempts were difficult to hear, due to background noise in the department, so we found it difficult to review and assess the handover*

Use photographs of handovers to display on your Knowing How We Are Doing board, see Photographs, Toolkit, tool no.8.

Identify waste

Another simple tool to help you and your team review the current state and identify areas for improvement is a Video waste walk – see Toolkit, tool no. 6. This will help staff to identify all the sources of **waste** in recovery. There are seven types of waste (detailed below).

The seven wastes

1. **Defects and rework** – due to faulty processes, repeating things because correct information was not provided in the first place
2. **Motion** – unnecessary people movement, travel, walking and searching. Things not within reach, things that are not easily accessible
3. **Overproduction** – producing more than needed or earlier than needed by the next process
4. **Transportation** – moving materials unnecessarily
5. **Waiting** – staff unable to do their work because they are waiting for something such as people, equipment or information
6. **Inventory** – too much stock, work in progress or patients waiting in a queue
7. **Over-processing** – performing unnecessary steps that do not add value

Example: waste that might be identified in handover

Inventory	• Too much suction tubing in 'gratnell' trolleys
Motion	• Chasing anaesthetist for: – fluid prescription – oxygen prescription – medicines given as per handover but not documented • Chasing surgeons for: – post op notes (printed or handwritten) – TTO's – unclear post op instructions eg antibiotics to be given 3 doses – post op but not prescribed in the drug chart
Waiting	• Anaesthetist to prescribe meds / fluids / oxygen • Surgeons to write prescription chart / post op instructions • Scrub practitioner to handover • Ward nurses to accept handover
Over processing	• Repeating questions that are not relevant to that handover stage
Over production	• Duplication of documents
Defects	• No field on form for important information • No postoperative instructions on the operation record

Review the current documentation

Having identified the handover processes within the scope of this module, with your team identify:

- are any handover proformas currently being used?
- what documents exist to support handovers?
- how accurate and complete is the documentation?
- is there any duplication of information?
- are there any omissions from the documents?

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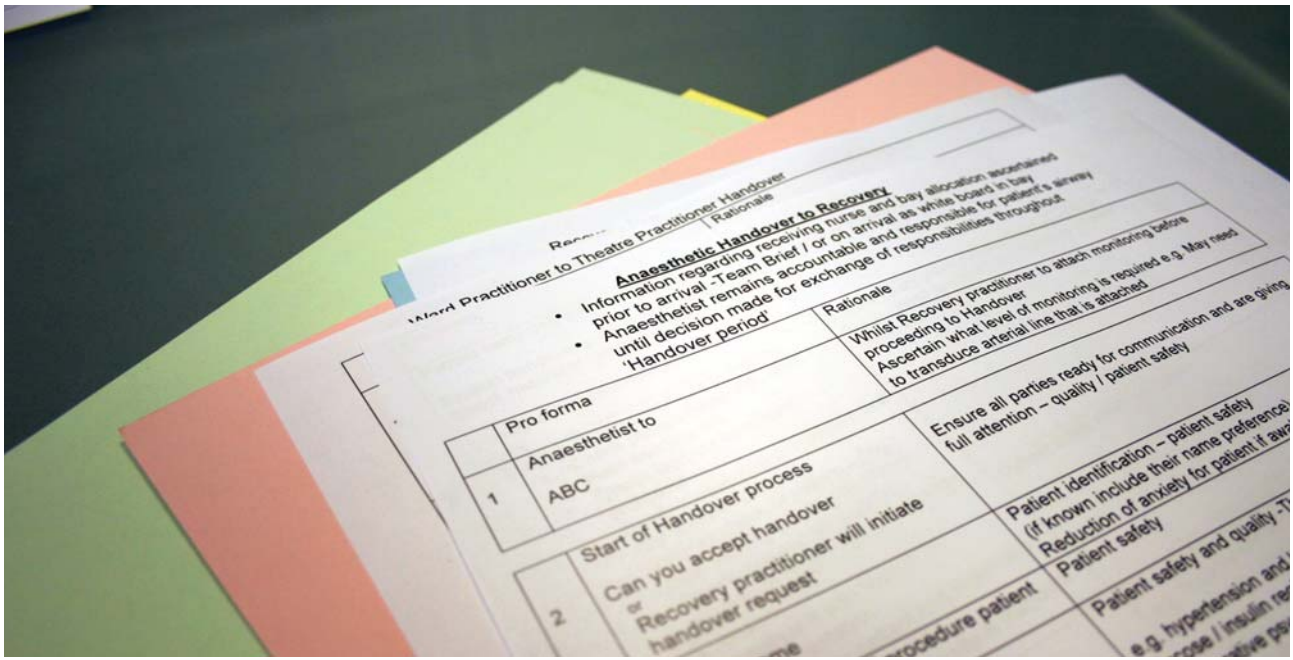
'As a student nurse I was taught to receive and check-in a patient into the anaesthetic room. There was no formal procedure or checklist in place.'

Claire Bradford – theatre matron, Royal Devon and Exeter NHS Foundation Trust



Understand how long handovers take

Understand how long your handover processes take so that you can analyse them before and after implementing a change. Use Timing Processes (Toolkit, tool no.16) to time each of your handovers.

- Capture the time taken to carry out each handover on a number of occasions. Approximately ten records of each handover procedure will provide you with sufficient information.
- Record interruptions during these handovers – note why they happened on a tally chart.
- Compare the times to understand the variation in practice and time taken.

Bear in mind that the same handover process will vary due to speciality, complexity of the procedure and the patient case mix. However this tool is useful if used in conjunction with 5 Why analysis (Toolkit, tool no.18). Where handovers take longer to complete, ask 'Why?' repeatedly until you understand the real reason. It may be linked to the number of interruptions for example. Ask why the interruptions are occurring and get to the root causes. You can then work with your team to identify ideas to reduce the number of interruptions.

Gather information about issues and problems

With your team identify recurring issues, problems or delays that prevent them from doing their job efficiently and effectively. To help you collect these glitches collect them on a daily basis, possibly as part of a debrief (see the Team-working module). Gather this information initially over a one month period. See Glitch count, Toolkit, tool no.20 for more details.

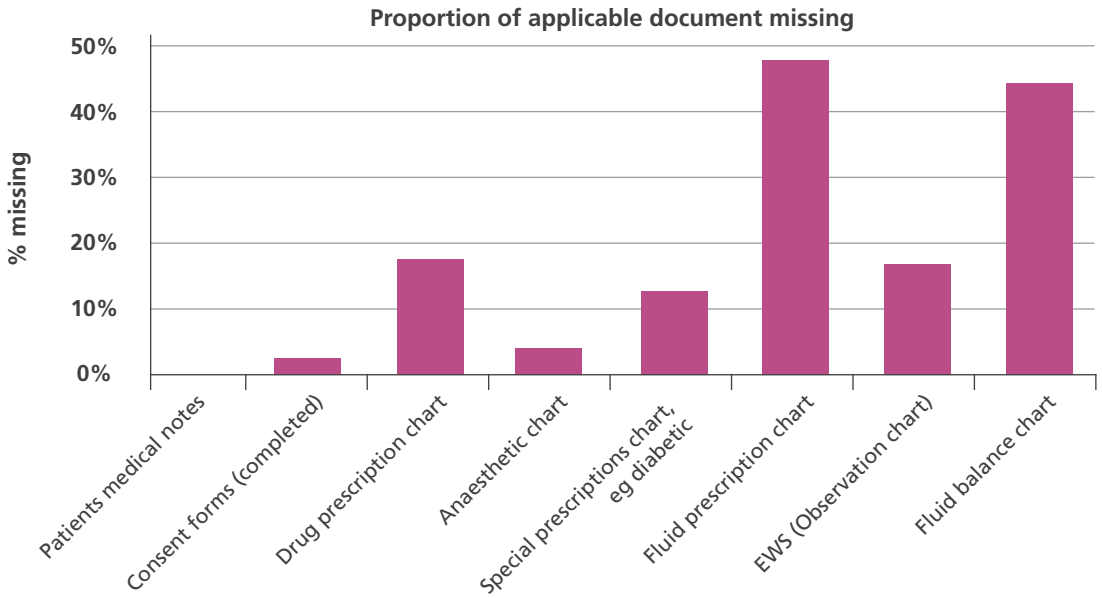
Gather information from incident reports to see whether defects in handover reports have contributed and gain feedback from staff about glitches they have identified in handover. Keep a log in recovery to record all the glitches that occur.

Pareto chart

A simple but effective way to demonstrate the reasons for late starts. This allows the team to focus on the key issues by examining the root causes for the most significant problems.

For information on using Pareto charts see www.institute.nhs.uk/qualitytools

Example: Pareto chart showing proportion of handovers with missing documents



Map your current state

Gather together as much data and information as you can. Unlike the other process modules the current state for handover is often difficult to process map. By reviewing this information as a team you will be able to build a comprehensive picture of your current handover processes.
You will be able to identify:

- the required information for a 'perfect' handover
- areas of good practice that can be shared and spread across the theatre department
- issues and barriers that prevent the team from consistently providing a 'perfect' handover
- ideas for change that could result in improvement.

Putting effort into gathering and presenting the information to the team at this stage will result in a richer perspective of the current state of your handover processes and the challenges and opportunities there are for improvement. Crucially this will provide you and your team with sufficient information to start creating your desired future state.

With your team map your current handover process. Refer to process mapping, Toolkit tool no.11 to help you with this important session. Use the experience you have in the room to walk through the process. Video maybe a better tool to capture your current state (see Toolkit tool no.?). As a team identify all the activities / information which make up the handover process, defining them step by step in chronological order and capturing any loops of repetition and rework.

Tip: *To make the most of the mapping session ensure you:*

- *identify which of your handover processes you will be working on*
- *identify what tools you will be using*
- *arrange a time when the team can come together to review and understand the information*
- *make the session between two hours and half a day long in order to make good progress*
- *display the information where the team can see it, and understand the current state*
- *use a facilitator who is familiar with process mapping techniques*
- *use the meeting to agree dates for the follow up sessions for future state mapping, action planning and reviews*
- *remember to invite key stakeholders to participate and offer feedback.*

Review ideas that have worked elsewhere

Example 1: standardising handover

Aim
To improve the quality and transfer of information during the four stages of handover and shift handover.

Background
The theatre staff felt that all the handovers were variable and not consistent with relevant and complete information transfer and correct documentation.

What they did

Plan
- identified a core multidisciplinary team (MDT) who were involved in the handover processes.
- agreed the scope of the module; what was included, what was outside the remit
- identified any other relevant projects that would have a connection to the handover project, eg Patient Safety First campaign
- engaged the key audiences and participants by explaining the aims of the project, and encouraged their involvement in the process, eg theatre, ward and recovery staff, clinicians and management.

Do
- set up an initial team meeting to provide an overview of the project, explain the approach to the work and agreed our aim for improvement, and how this module fits in with the rest of the programme
- captured the current state, eg through the use of video and audit tools
- held a meeting to review the current state, identified issues and potential solutions and improved ways of working
- discussed and agreed the 'perfect' handover process and identified what changes needed to occur to achieve it
- planned to implement and trial (PDSA) small scale changes and the teams took the lead in implementing them, eg check list for documents to arrive with patients in the anaesthetic room
- tested larger scale improvements, eg proforma for each handover developed by staff from the relevant areas within the team
- identified other beneficial changes; identified clearer roles and responsibilities and communicated them via audit mornings with the various staff groups
- agreed frequency of ongoing meeting dates and invited all relevant attendees
- agreed on actions needed to be taken and appropriate time scales and ownership for each step of the process. This was updated with progress at the regular meetings.

Study

- monitored the identified actions on a weekly basis on the module planner document and colour coded progress as appropriate, giving a clear view to all
- addressed issues with the help of appropriate staff involved, and where needed we escalated the issues.
- created and trialled four handover proformas
- updated the project team including executive lead
- updated the wider organisation via hospital communication magazine
- engaged the MDT and given them ownership to identify both the issues and solutions to their working processes
- engaged and had positive feedback from the organisation as a whole.

Act

- instigated positive changes, eg reduction in documentation and improved process design
- teams have built on their own personal development through an increased understanding of their processes and how they can make a positive difference to the status quo. It has also given them an understanding of how their role fits and contributes to the organisation.
- after testing each pro forma the team re-videoed and re-audited against the agreed criteria, and clearly demonstrated that the information transfer had improved considerably.
- now adopting the new handover proformas

Benefits realised

- more accurate, timely information transfer given at all stages of a surgical patient's journey.
- standardisation and agreement of Handover proforma's from the MDT
- handover proformas with criteria are now recognised, acknowledged and used.
- clearer roles and responsibilities.

Below are the examples of the handover proformas developed

1. Ward practitioner to theatre practitioner handover proforma

No.	Proforma	Rationale
1	Patient name and their preference Explain handover procedure to patient Check handover can be accepted Preoperative psychological / cognitive state	Patient identification Reduction of anxiety for patient
2	Theatre sign in procedure to include: • Check patient detail with 'pink' plato sending slip • Check sign out from ward complete • Confirm operation with patient and the operating list • Identity check of patient using both identity bands with above • Check documents present • Complete Sign in documentation	Patient safety check (correct site surgery trust policy / WHO surgical safety checklist – patient safety alert Jan 09)
3	Check consent • Consistent with theatre list documentation • Signed by patient and healthcare (HC) professional • Check operation site is marked if applicable	Patient safety check (as above)
4	Relevant medical history Include Age (and weight / BMI) Allergies and sensitivities	Ensures HC practitioner has all info. about patient, eg hypertension and beta blockers or diabetes and the glucose / insulin regime / pre-medication / new reactions BMI / age – paediatric or outside of normal parameters etc
5	List drugs given Include: eg analgesics / premeds / heparin / insulin etc	Medication given / omitted pre operatively that has potential impact on care continuum
6	Cannula status – • Location(s) • Ensure flushed • Identifiable insertion date – label / secure	Visual infusion phlebitis score – trust policy
7	IV fluid status / NBM Urine output (catheterised and when)	Fluid balance
8	Special instructions / requests for the Theatre Physiological state (eg early warning score / waterlow / manual handling)	Patient safety / continuity of care
9	Patient property returned with ward practitioner	Trust policies / quality of patient care experience Patient property trust policy
10	Theatre accepts patient care	Responsibility of patient transfer to theatre practitioner assumed

2. Anaesthetic to recovery handover proforma

- Information regarding receiving nurse and bay allocation ascertained prior to arrival – team brief / or on arrival as white board in bay.
- Anaesthetist remains accountable and responsible for patient's airway until decision made for exchange of responsibilities throughout 'handover period'.

No.	Proforma	Rationale
1	Anaesthetist to ABC	Whilst recovery practitioner to attach monitoring before proceeding to handover Ascertain what level of monitoring is required eg may need to transduce arterial line that is attached
2	Start of Handover process Can you accept handover or recovery practitioner will initiate handover request	Ensure all parties ready for communication and are giving full attention – quality / patient safety
3	Patient name	Patient identification – patient safety (if known include their name preference) Reduction of anxiety for patient if awake
4	Brief description of procedure patient has undergone	Patient safety
5	Relevant medical history Include: • age • medication given / omitted pre operatively that has potential impact on care continuum • weight	Patient safety and quality – This may include eg hypertension and beta blockers or diabetes and the glucose / insulin regime / pre-medication preoperative psychological / physiological state / cognitive state Weight / BMI - If paediatric or outside of normal parameters
6	Allergies and sensitivities	Patient safety
7	Type of anaesthesia Include: • special events • list drugs given • cannula status • iv fluid given and prescribed • urine output (catheterised and when) • blood loss	Determine - GA / LA / regional / sedation • inform use of muscle relaxants + / - reversal • give reason if applicable i.e. if not part of normal triad of anaesthesia – and the complications of the anaesthetic / surgery Ensure cannula (trust iv drug admin. policy) • flushed (that have been used) • newly inserted are identified Surgical complications
8	Management Plan	Patient safety and quality - Set parameters and plan of action
9	Decide if you want to see patient prior to discharge to ward. Contact details	re: eg analgesia / antibiotics / anticoagulants etc Patient safety - Recovery 'discharge criteria' will apply unless otherwise requested Responsibility for patient care – where or who else to
10	End of Handover process Do you accept patient and handover? YES / NO	contact (bleep no.s / location / name) Checking knowledge transfer and patient safety

3. Theatre practitioner to recovery practitioner handover proforma

No.	Proforma	Rationale
1	Patient name and their preference	Patient identification Reduction of anxiety for patient when awake
2	Can you accept handover or nurse will initiate handover request	Patient safety / quality – ensure all parties ready for communication and are giving full attention
3	Allergies and sensitivities	Patient safety
4	Description of procedure patient has undergone– drains – packs	Patient safety – Include: site / actual surgery / drain state (un / clamped) etc / packs (type)
5	Local anaesthetic type, amount, and site	Patient safety – LA toxicity
6	Urine output (catheterised and when) Blood loss	Patient safety / quality – When catheter inserted / bladder drained Surgical blood loss amounts and site Potential bleeding site (was surgery difficult/complicated)
7	Preoperative – Cognitive } – Physiological } state – Prosthesis – Disabilities	Patient safety and quality – anxiety / confusion / Pressure areas – Waterlow score / EWS / other wounds or pre-existing traumas Spectacles / dentures / hearing aid
8	Special instructions / requests	Patient safety and quality – eg limb elevation / observations
9	Do you accept patient and handover	Checking knowledge transfer and patient safety
10	Decide if you want to see patient prior to discharge to ward.	Recovery 'discharge criteria' will apply unless otherwise requested

4. Recovery practitioner to ward practitioner proforma

No.	Proforma	Rationale
1	Check handover can be accepted by practitioner Patient name and their preference Explain handover procedure to patient Pre-operative psychological / physiological state / cognitive state	Patient identification Reduction of anxiety for patient – patient experience Check prior knowledge of patient with ward practitioner
2	If nurse does not know patient: Relevant medical history Include Age & (weight) Allergies and sensitivities	Patient safety – reduces duplication of info. / ensures ward practitioner has all info. about patient Weight / BMI / age – paediatric or outside of normal parameters etc This may include, eg hypertension and beta blockers or diabetes and the glucose / insulin regime / pre-medication / new reactions
3	Description of procedure patient has undergone – include Drains / Packs / NG / Jej. tubes / Skin closure Post operative Interventions (events in Recovery)	Patient safety / Quality – (Observation / written and / or verbal handover to include eg any flushes/aspiration required / when last done / change of / enhancement of wound dressings / any evidence of bleeding / empty drains etc Site / status / drainage) (documented – surgeons operation note / theatre careplan – not all information needed to be verbally handed over but must be documented)
4	Type of anaesthesia	Patient safety – determine - GA / LA / regional / sedation / amount of local infiltration (LA toxicity)
5	List drugs given include Medication given / omitted pre, peri, postoperatively that has potential impact on care continuum	Patient safety – eg analgesics – amount / when can have more, anti-emetics-amount / when can have more Check drug chart with nurse – drugs given in theatre signed for / appropriate drugs prescribed for ward / TTO's for day cases
6	Cannula status • Location(s) • Ensure flushed • Identify newly inserted – label / secure	Patient safety
7	IV fluid status / oral Urine output (catheterised and when) Blood loss	Patient safety and quality - fluid balance / surgical blood loss amounts and site Potential bleeding site (was surgery difficult / complicated) Check wound sites
8	Special instructions / requests for the Ward	Patient safety and care planning - eg hb check / bloodsugar / oxygenation / antibiotics / heparin / surgeons instructions / prescriptions / position of patient and specific observations i.e neuro / doppler / bruit Handover of TTO's (if daycase) etc Trust policy / quality of patient care experience
9	Physiological state – early warning score / Waterlow / manual handling	Trust policy – property
10	Property form signed in presence of nurse / patient Nurse accepts patient care	Signs for acceptance of patient handover Checking knowledge transfer and patient safety

Example 2: shift handover

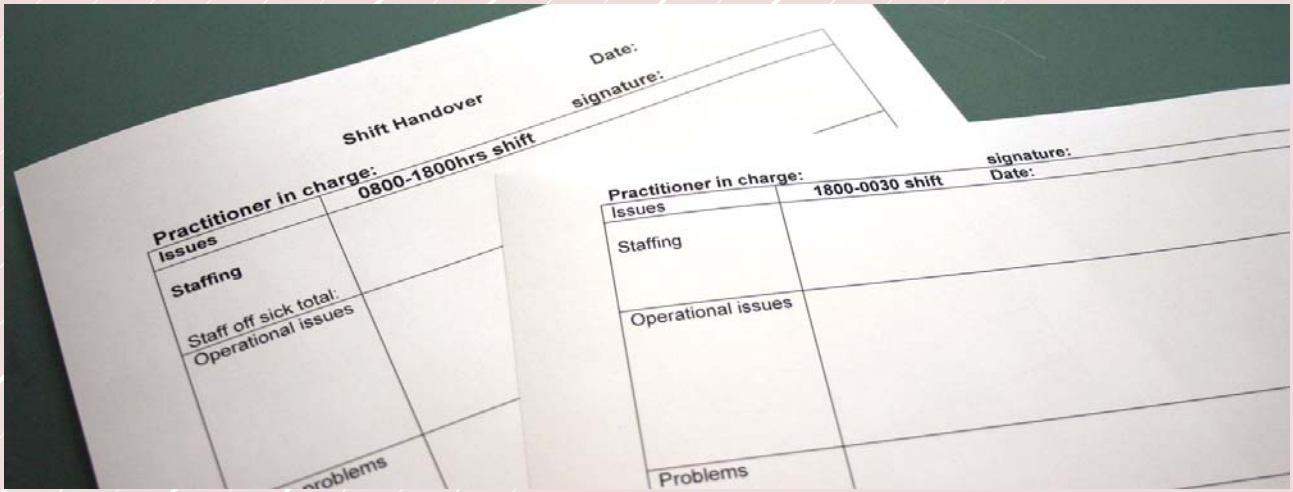
Aim
To improve the quality of the shift handover in theatre

Background
- There was no structure in place for the formal handover of information from shift to shift. Staff had difficulty in tracking what had happened – particularly over weekend periods – relying on information that was anecdotal and inconsistent at best.

What they did
- The team developed and introduced a shift handover proforma as a test along with a formal 1800hrs team handover to the evening / on call team.
- The current form is printed off as two sided page. This is formatted into three shifts covering the twenty four hour period, with a section for each shift.

Benefits
- This now provides a written record of issues from the previous shift, a set of information that needs to be discussed and recorded. Allows senior team to track back through recent records

Next steps
- To reformat the handover to SBAR format – so will be reformatting the record sheet and verbal handover. This will bring the handover in line with organisations SBAR policy and also encourage the team in the use of SBAR.



Example 3: handover to recovery practitioner

Aim

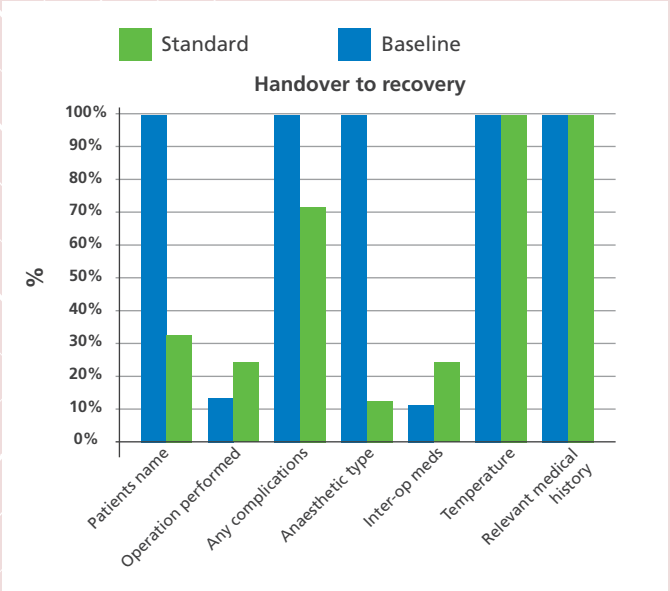
To improve the quality of the handover to the recovery practitioner.

Background

The recovery team felt that the handover from the anaesthetic / theatre team to the recovery practitioner was variable. They felt the handover could have started when recovery staff were transferring a patient from theatre to recovery, and with more than one person giving the handover simultaneously. Most of the group could recount incidents where some information had been missed, eg actual procedure performed, relevant past medical history.

What they did

- The recovery team was formed; they decided what information they required at handover
- A base line audit was undertaken recording the current handover
- A standardised handover template was designed
- This was then tested and a couple of amendments made



- The team tested the new handover template
- The recovery team was encouraged to ask the patients for information to make the handover a two way process
- The standardised format is now displayed in all theatres and recovery bays
- The results were presented to the anaesthetic department and theatre staff.

Example: handover checklist

Benefits

- More complete information given to the recovery team
- Appropriate staff providing the hand over
- Appropriate place for the handover to be given
- Recovery Practitioner ready to receive the handover

Next steps

- To develop and test a standard format for all other theatre related patient handovers

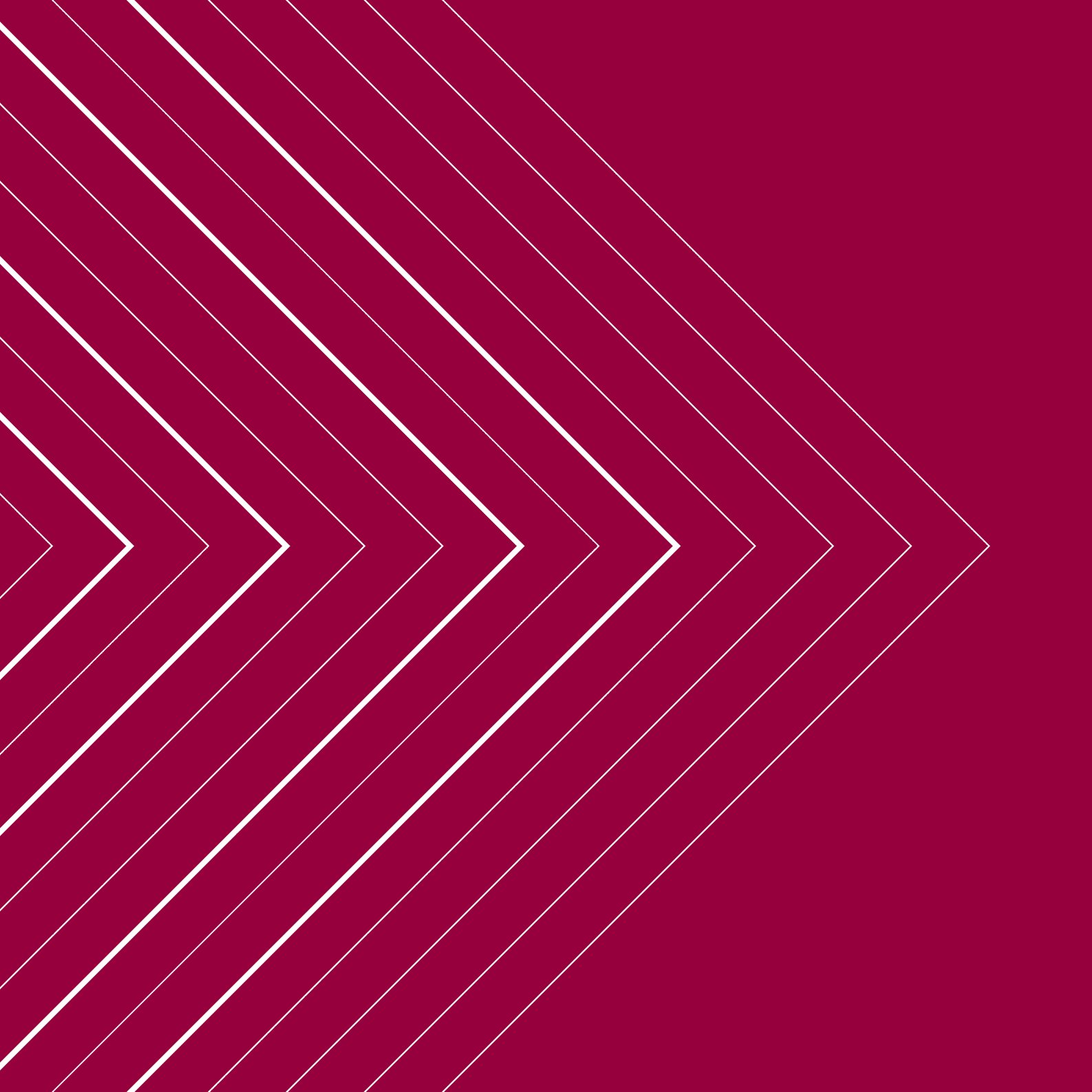
No.	Anaesthetist remains responsible for patient's care throughout 'Handover Period'
1	Connect monitoring
2	Initiate handover
3	Patient name
4	Brief description of procedure
5	**Relevant** medical history – include: • Age, Weight / BMI • Medication given / omitted peri-operatively • Cognitive state
6	Allergies and sensitivities
7	Type of anaesthesia - include: • Special events • List drugs given • **Cannula – New or Old – Flushed or Not** • IV fluid given and prescribed • Urine output (catheterised and when) • Blood loss
8	Management Plan
9	Do you want to see patient prior to discharge?
10	**Contact details or who is responsible for your patient**
11	Do you accept patient handover?

Plan – milestone checklist

Move on to **Do** only if you have completed **all** of the items on this checklist

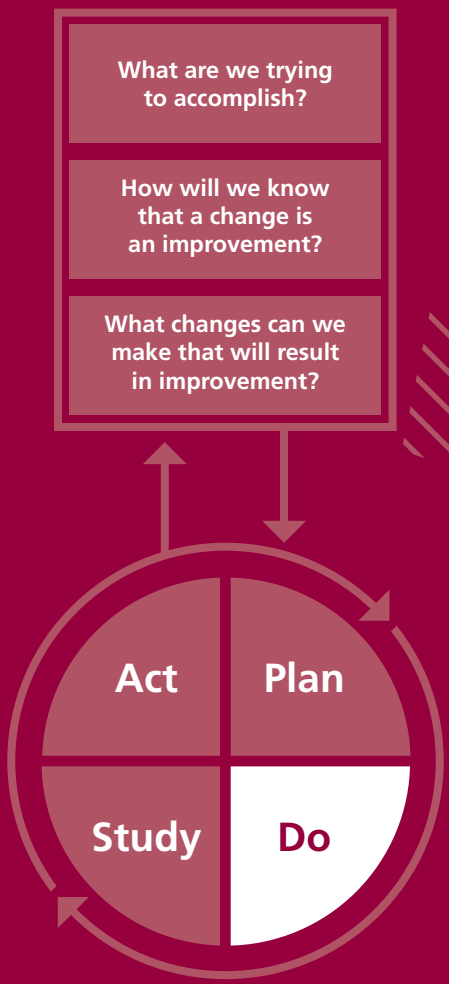
Checklist	Completed?
Ensured strong and visible leadership	
Created the team	
Communicated, engaged and raised awareness	
Understood your current state	
Gather and review relevant data	
Gained feedback from staff	
Understood how long individual activities take	
Gathered information about issues and problems	
Mapped your current state	
Reviewed ideas that have worked elsewhere	

Effective team-work checklist	Tick if yes
Did all of the team participate?	
Was the discussion open?	
Were the hard questions discussed?	
Did the team remain focused on the task?	
Did the team focus on the area / process, not individuals?	



5. Do

Once you have understood your current state and identified any issues and barriers within it, it is time to develop and implement your future state.



Identify and map your future state

At this stage you will need to review all of the information, data and feedback from staff that you have gathered during the preparation phase in order to get a clear understanding of how your current handover processes work.

You will need to:

- review all the information and data gathered
- review videos
- understand how long things take
- understand the feedback collected
- gather information about issues and problems.

This analysis should help you identify:

- positive elements of the current process – what you want to keep and build on
- negative elements – concerns, issues, opportunities for improvement or waste elimination.

Remember that some of this work may overlap with other modules, eg Recovery. Ensure the module team has a full understanding of any other work which may be happening simultaneously. This will enable project plans to link and support one another rather than duplicate effort at a later stage.

To help with this it is advisable that at least one team member is the same for the Handover and Recovery improvement teams.

Map the future state

Effective group facilitation is key to the success of this important session. You will need a facilitator who is experienced in process mapping, and has the skills to guide the team through the session, and is able to challenge and draw out the best ideas from everyone in the team.

To map your future state:

- get as many of your Handover team together as possible
- invite multidisciplinary representatives from areas in theatres and upstream and downstream of theatres, they will have valuable insights and ideas, for example the surgical wards
- arrange the session allowing plenty of time to ensure as many people can attend as possible
- send a detailed agenda, so the team understand what they have been invited to, and why their participation is important.

The agenda should include:

- review of the module aims
- specify handovers under review eg:
  - ward to theatre
  - theatre to recovery
  - recovery to ward
- review of all the information collected to date including the current state map and the waste identified
- review of issues and frustrations identified to date and ideas for improvement
- further ideas generation
- future state mapping for each handover
- action planning and dates for future meetings.

Use the experience in the room to walk through each handover process and pick out the activities which make up the handover process, defining them step by step in order, and capturing any loops of repetition and rework.

Get the team to think about the following:

- the sequence in which things happen
- are staff following a standard procedure?
- does everyone do things differently?
- what good and bad practices can they identify?
- are there any particular issues?

Use Process mapping, (see Toolkit, tool no.11) to support you with this event. Together as a group, look for ideas or suggestions on how to improve the current process. All ideas no matter how big or small should be captured on a sticky note and put on a flipchart. Encourage the team to be innovative with their suggestions. Tools to help you help staff think creatively can be found at www.institute.nhs.uk/thinkingdifferently

Other useful tools to support this session include:

- 5 Why analysis - Toolkit, tool no.18
- dot voting - Toolkit, tool no.2.

Carry out a Cost / benefit analysis

Depending on the number of ideas and solutions which have been identified and are within scope of this module, you may need to prioritise the ideas.

A Cost / benefit analysis – Toolkit, tool no.12, will help you and your team to prioritise the ideas, based on the cost of implementation and the potential benefit to be gained. Low cost solutions with high benefit provide 'quick wins'. This helps to capture your team's attention and generate enthusiasm.

Example of a Cost / benefit analysis

Cost / benefit

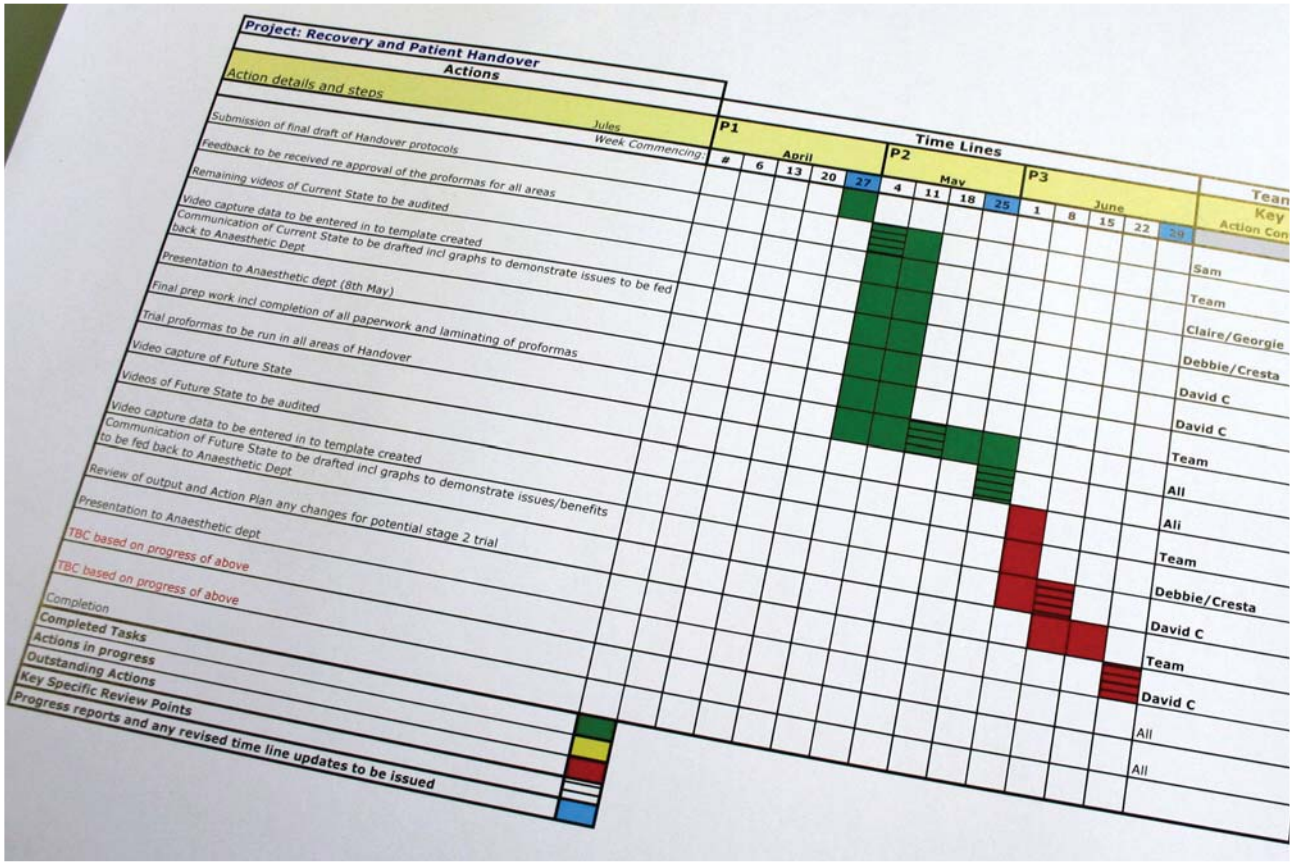
- **Low cost and high benefit** – just do it
- **High cost and high benefit** – initiate hospital procurement process, a business case will usually be required
- **Low cost and low benefit** – nice to have, but best to implement when other priorities have been taken care of.
- **High cost and low benefit** – log as a nice idea, but put to the bottom of the priority list for implementation.

Create an implementation plan

Your teams will have identified many issues and potential solutions. It will be necessary to prioritise which of these you should address and in what order.

Once you have agreed and prioritised the changes you are going to test, develop an implementation plan for keeping track of the actions. Use the Module action planner, see Toolkit, tool no.13, to organise, share and communicate the actions. The planner can be used to monitor progress of your PDSA cycles week by week. Display the plan in a prominent position in your Handover area.

Example: implementation plan



Identify issues that are beyond the scope of the module

Some of the issues and barriers identified may be beyond the scope of this module or the influence of theatres. However, these issues still need to be addressed through the appropriate person within your organisation, backed up with data and a clear indication of the impact that the issue is having on your patients or your theatre service.

Below are some suggested solutions for resolving issues external to the Handover module.

- Issues can be taken forward by the programme leader. There may be occasions where issues need to be escalated to the executive leader when other strategies have failed to find effective solutions.

- Some key potential improvements will fall within the scope of other modules within The Productive Operating Theatre. Your programme lead will be able to link these into other module improvement work.

- Some potential improvements will also link in well with work that your organisation may be developing as part of The Productive Ward or other programmes in The Productive Series. This is an excellent opportunity to build a collaborative working relationship with other Productive programmes.


BREAK + CAKE
HOME

Monitor progress

Throughout your defined test period continue to collect and review your data as described in Knowing How We Are Doing.

During the Plan phase you collected a considerable amount of information to help you understand your current handover process. You will be able to use this as part of a baseline against which you can measure your progress.

- Monitor initial data for signs of improvement – share any evidence with the team to encourage them to persevere.
- Gather feedback from the team whilst you are testing the potential solution – how are things going and are there any problems?
- Encourage suggestions – the team carrying out the work are likely to be a rich source of ideas and suggestions.
- Make time to regularly catch up with the team involved in implementing the changes so they can discuss progress and issues, and make suggestions for further improvements.
- Communicate progress to the wider team through your Knowing How We Are Doing board and your organisation's newsletters.
- Review your implementation plan to make sure all actions are on track.

'I had always thought that I did a good handover, till I actually asked someone for feedback. I realised that the recovery staff need the same level of information that I would give when handing over a case to a consultant colleague during a case.

Working in this group allowed me to see what I thought was a very simple process in a completely different light. I have no doubt that we have made an improvement to patient safety. We have also empowered the recovery staff to ask for the information that they need.'

David Conn – consultant anaesthetist, Royal Devon and Exeter NHS Foundation Trust

Example: using data to monitor progress

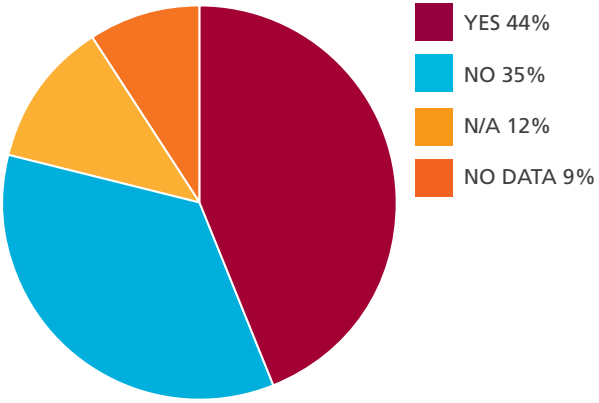
As part of the Handover project at the Royal Devon and Exeter NHS Foundation Trust the team defined criteria which comprised 'a perfect handover'. They used this criteria to gather baseline data. The team videoed ten of each of the four handover processes within their department and presented the data back in the form of a table, bar chart and pie chart, simple visual tools to communicate the current state to the team. This data was also displayed on the Knowing How We Are Doing board for the wider team to see.

After three months, the team re-videoed their handover processes using the same audit tool, and reviewed the data together. Below is the information from current and future state audit for the anaesthetic to recovery handover process. It is clear where improvements have been made, which was very motivating for the team, it is also clear where further improvement work need to be focussed.

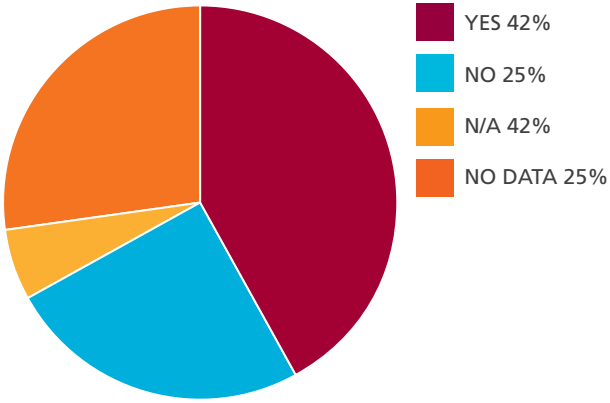
Question No.	Percentage of assessable items with 'No Information'	Current State	Future State
1	Anaesthetist remains responsible for airway	0%	44%
2	Patient name given	14%	38%
3	Defined roles & responsibilities	0%	33%
4	Handover process initiated clearly	0%	33%
5	Description of procedure patient has undergone	11%	0%
6	Relevant medical history	22%	20%
7	Patient's age stated	50%	0%
8	Medication given or omitted preoperatively	71%	0%
9	Patient's weight (where relevant)	100%	100%
10	Allergies and sensitivities	78%	0%
11	Type of anaesthesia	44%	0%
12	Special events	56%	33%
13	List drugs given	44%	0%
14	Cannual status	100%	33%
15	IV fluids given and prescribed	14%	25%
16	Urine output (catheterised and when)	100%	71%
17	Blood loss	100%	13%
18	Suggested aim and plan of interventions	11%	25%
19	See patient prior to discharge to ward	100%	100%
20	Contact details	100%	100%
21	Do you accept patient & handover?	11%	11%
	All Questions	44%	31%

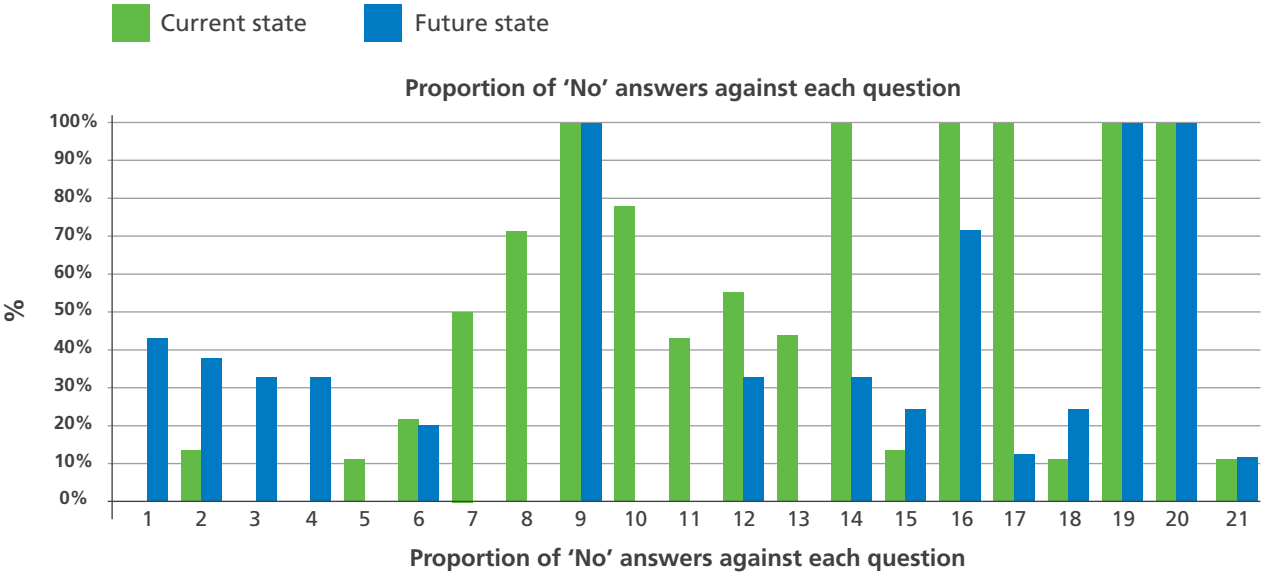
Distribution of answers

Current State



Future State





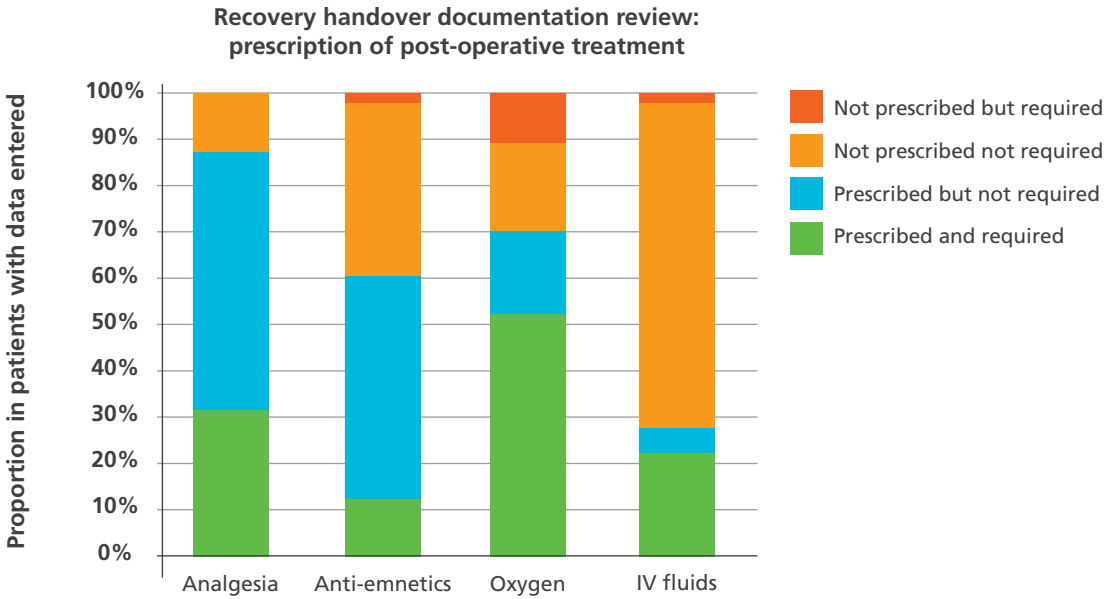

Theatre staff movement

Analysing and presenting your data

There are many ways that you can analyse and present your data. For more information about how to analyse your data and lots of examples of charts that have been used within the Productive Operating Theatre see Example Knowing How We Are Doing Graphs www.institute.nhs.uk/theatres_resources

Run charts are a good way of showing the effect the changes you are making are having. They show what is happening to a particular measure over time and so can be used to see whether things are getting better or worse. They are also easy to create and simple to understand.

For example this bar chart below shows a review of handover documentation focusing on prescribing of postoperative treatment. The teams would be looking for an increase in the **green zone** over time



A more advanced way to present your information is by using Statistical Process Control (SPC) charts. For more information and a tool to create SPC charts see www.institute.nhs.uk/qualitytools

Collect qualitative information

Feedback from the team carrying out the change is also important

- Gather feedback from the team whilst they are testing the potential solution – how are things going and are there any problems?
- Encourage suggestions – the team carrying out the work is likely to be a rich source of ideas and suggestions.

Progress review meeting

Reviewing your measures is the most important part of the whole measurement process.

The purpose of measurement is to act upon the results. It is vital that you put time aside to review the measures as a team at a progress review meeting.

What is it?	• a regular, routine meeting to: – discuss progress against goals – plan actions against issues
Why do it?	• everyone has a stake in how theatres perform • promotes improved and consistent communication between theatre staff • promotes cohesive team-work to achieve theatre objectives • encourages ownership and responsibility for problems and solutions
Suggested agenda*	• welcome / update on actions from previous meeting • review charts and discuss changes for signs of improvement – congratulate on good performance and move quickly to areas where improvement is required • review your implementation plan • agree actions required / update on actions from previous meeting • assign new actions and deadline • confirm next scheduled meeting

* For detailed guidance see Knowing How We Are Doing, Step 6 – Review measures page 75

- Monitor initial data for signs of improvement – share any evidence with the team to encourage them to persevere.
- Make time to regularly catch up with the team involved in implementing the change so they can discuss progress and issues, and make suggestions for further improvements.
- Use the meeting as an opportunity to review your implementation plan to make sure all actions are on track.
- Communicate progress to the wider team through your Knowing How We Are Doing board and your organisation's newsletters.

Questions to ask

By reviewing the measures you will learn about how your theatre team is performing. You will analyse the information and develop conclusions about whether you are measuring the right things. You will begin to understand the reasons behind what the information is telling you and identify the actions you need to take.

The following questions can help guide your discussions at your progress review meeting.

What outcomes did we expect (our aim)?	eg the person receiving handover has all the information they need to accept responsibility
Do the results indicate we are achieving those outcomes?	eg audit of planned information received against actual information received
Are we confident we have made the correct conclusion?	eg if information is not provided or received do we know why
Do the results indicate that we should be doing something else?	eg if there are significant omissions in the handover information focus on this in the next cycle of improvement
Are the measures useful?	eg is this the best method to measure improvement
Would some other measures tell us more?	eg what would tell you about the quality of the information transfer

Remember to communicate progress to the wider team through your Knowing How We Are Doing board and your organisation's newsletters.

Support your team through the changes

The teams implementing the changes will require:

- strong support and commitment from the programme leader and management team
- good clinical engagement
- open and clear communication about the changes and the impact they are having (positive and negative)
- time to dedicate to the module and attend the progress meetings.

During the testing phase

- get daily feedback from staff about how they feel the new process is working
- take photos
- invite visitors from senior management/multidisciplinary teams to view the new process, see it in action and give their comments.

'By examining all participant roles in the recovery processes practice we have been able to improve on wasted practice such as repetition, unnecessary dialogue and variation in practice. We have standardised our handover documentation to support the new way of working.'

Sam Chandler – recovery sister, Royal Devon and Exeter NHS Foundation Trust

Managing the challenges of implementation

Depending on the nature and scope of the solutions you are testing you may come up against challenges when implementing the change, for example:

- resistance to the change
- lack of resources – people being released to carry out the changes
- scepticism – perhaps people have engaged in improvement work in the past that has taken effort without producing results. Perhaps they do not feel that the change is important to them.

When you meet these challenges share them with the programme leader or service improvement leader who will be able to work with you to find strategies to overcome them. Much of this will be about communication.

For resources that can help you visit www.institute.nhs.uk/qualitytools and see the tools on:

- resistance – addressing uncertainty
- resistance – understanding it
- resistance – working with it.


Diane
Registered Nurse
Assessor
S
B
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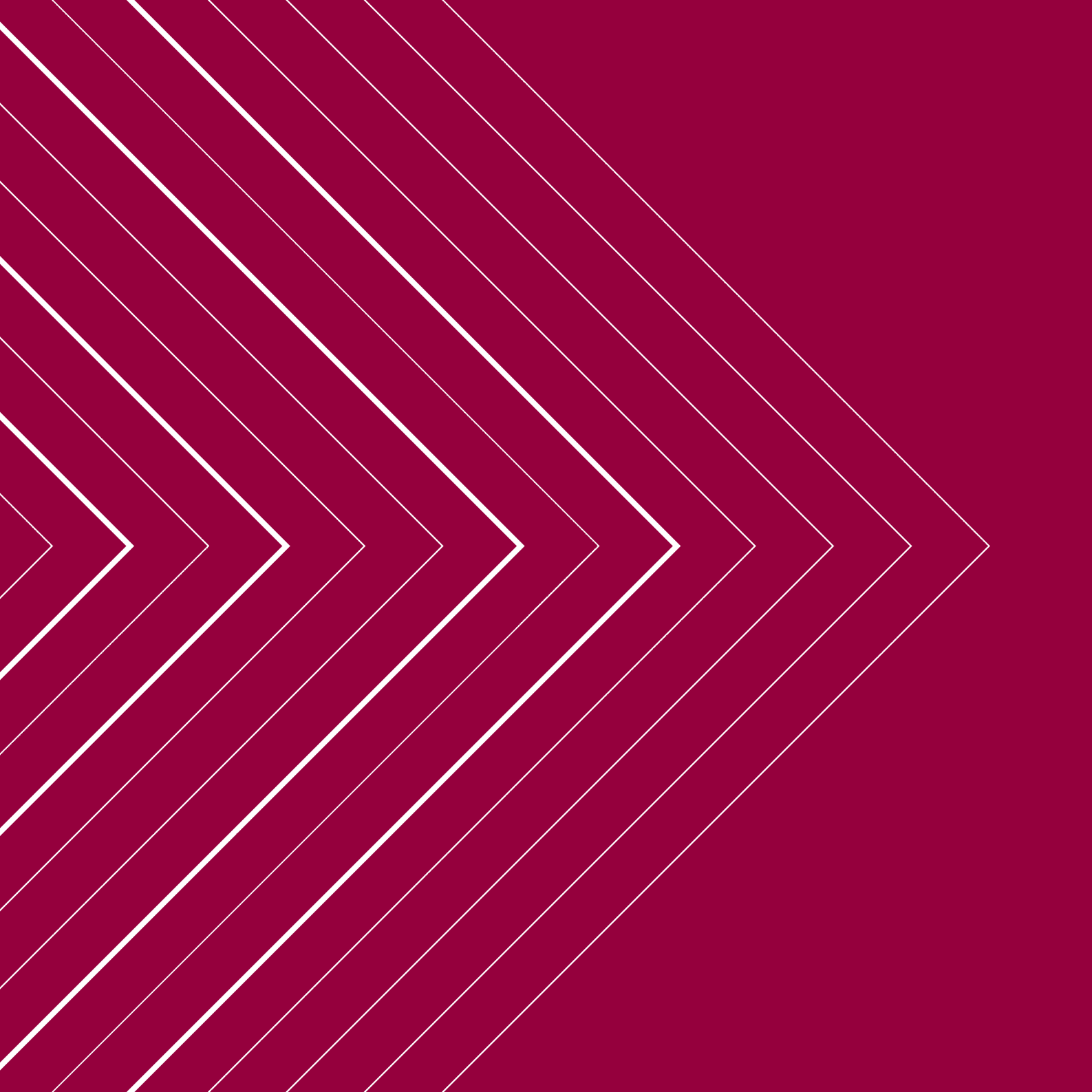
evian

Do – milestone checklist

Move on to **Study** only if you have completed **all** of the items on this checklist

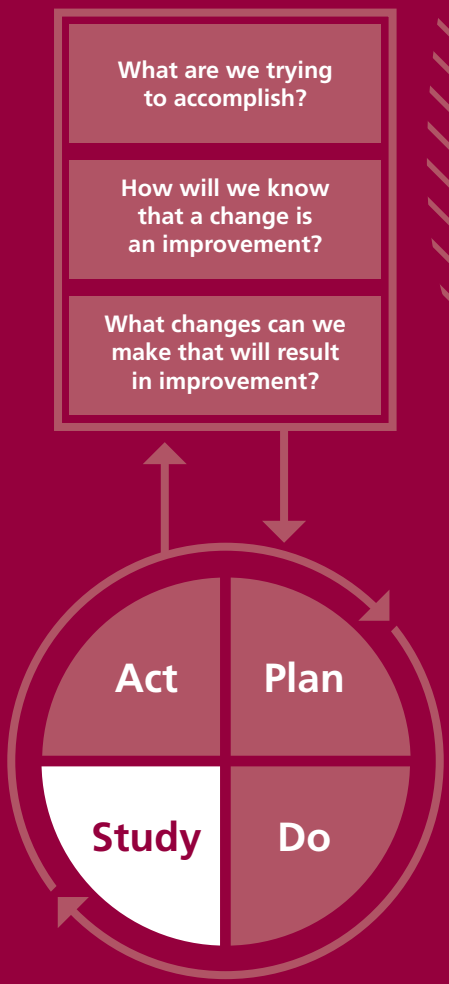
Checklist	Completed?
Mapped the future state	
Agreed and prioritise potential improvements	
Created an implementation plan	
Tested the changes	
Monitored progress	
Supported the team through the changes	

Effective team-work checklist	Tick if yes
Did all of the team participate?	
Was the discussion open?	
Were the hard questions discussed?	
Did the team remain focused on the task?	
Did the team focus on the area / process, not individuals?	



6. Study

Implementing improvements will take many Plan Do Study Act cycles. It is important to keep track of your measures for success so that you can assess the impact of changes soon after you make them and know if the changes you have made are improvements.



Collect analyse and review feedback and data

During the Study stage, your team will reflect on how successful the changes they implemented have been. This will occur after the original test period has been completed.

Use the three questions from the model for improvement as a framework to focus your thinking:

- what were we trying to accomplish?
- how do we know that the change was an improvement?
- what changes did we make that resulted in an improvement?

Collect analyse and review data

As you test your changes, you should continue to collect, analyse and review your key measures to assess the impact of the changes you have made over time.

Use the following questions to guide your discussion.

- What were we aiming to achieve?
- Do the results indicate we are achieving those aims?
- Is the team confident we have made the correct conclusions?
- Do the results indicate we should be doing something else?
- Are the measures useful?

Collect feedback from staff

What impact have the changes had on the different groups involved, in theatres and partner departments?

- are the changes having a positive or negative impact on them?
- do they have suggestions on how the changes can be improved further?
- have they collected stories and examples to provide the qualitative perspective of the change?
- were there any unforeseen benefits?

There are many ways to collect qualitative feedback from your staff and you will have already used some or all of them. Use the most appropriate method depending on your local circumstances and scale of the change:

- group sessions (Toolkit, tool no.1 Meetings)
- one to one discussions (Toolkit, tool no.7 Interviews)
- flip charts in communal areas inviting comments
- questionnaires which can provide both qualitative and quantitative information (see www.institute.nhs.uk/qualitytools Patient perceptions and Staff perceptions)

Group sessions are particularly good as they provide the opportunity for discussion and to gather views from different perspectives.

'I think the anaesthetic handover guidelines are a really useful tool and gives junior staff the confidence to challenge staff when an inadequate handover has been given. It is also a good prompt for new and visiting anaesthetists.'

Claire Wedgwood – recovery sister, Royal Devon and Exeter NHS Foundation Trust


BED NO
PATIENTS NAME
CONSULTANT
COMMENTS
DISCHARGE TIME
EDSU BED NO
PATIENTS NAME
CONSULTANT
COMMENTS
PRE ASSESSMENT 5358
ADMISSIONS 6015
EDSU 5064

Assess the impact on your key measures

As you reach the end of the test phase, you should review your achievements against your original aims. Use the following questions to guide your discussion:

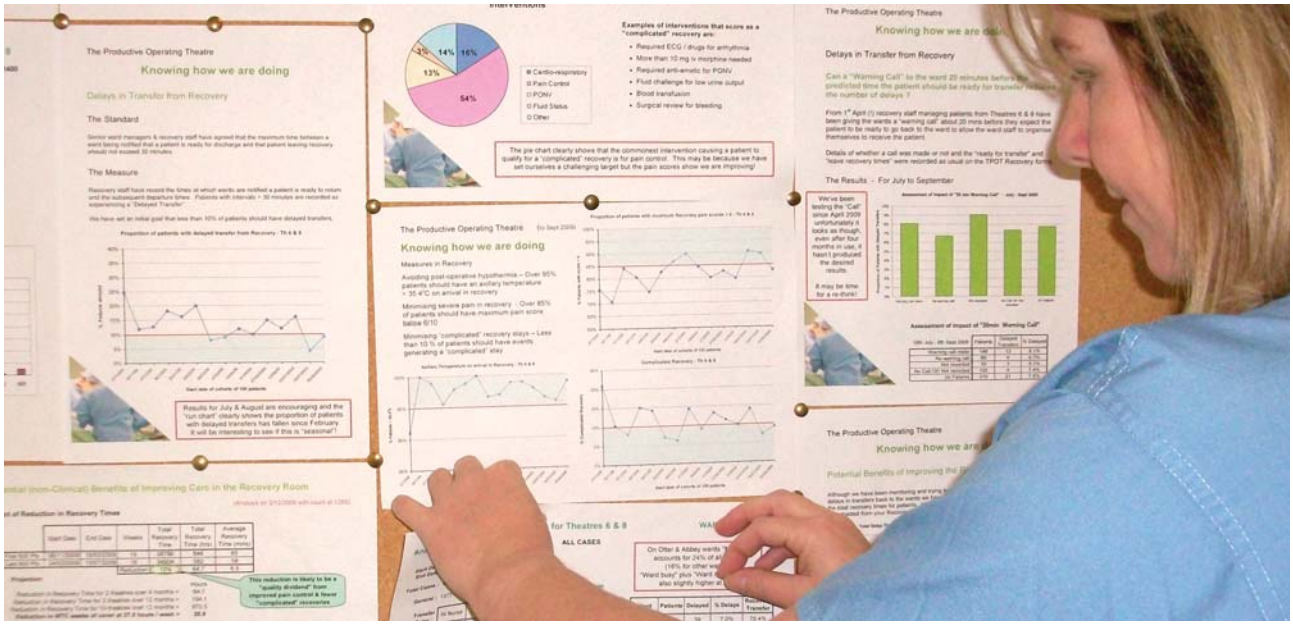
- what was your aim?
- do the results indicate you've achieved that aim?
- what conclusions can you draw?
- is the team confident they've made the correct conclusions?
- do the results indicate they should be doing something else?
- what next? – are you ready to move onto the Act phase?

Communicate progress

- Use your Knowing How We Are Doing board to communicate and share progress with your theatre department. Show progress on key measures, include quotes, comments and stories.
- Include the headline results in your Productive Operating Theatre newsletter, to share progress across the organisation.
- Discuss results and progress in your weekly team meetings, audit mornings, and brief and debrief sessions. Ensure all staff are informed.

`The anaesthetic handover has improved greatly enabling us as recovery nurses to give excellent care to the patient as we have all the information required,'

Marie Clarke – recovery sister, Royal Devon and Exeter NHS Foundation Trust

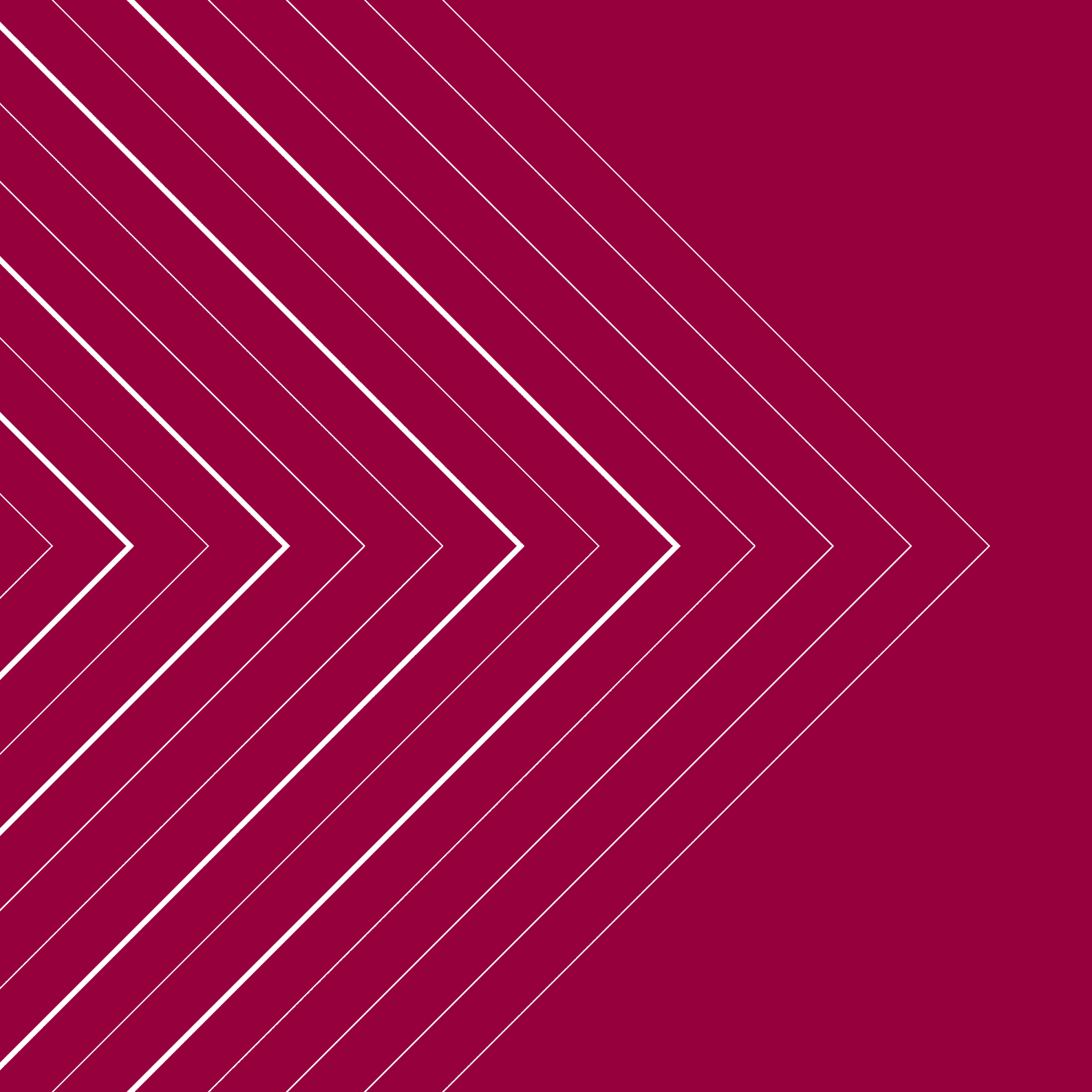


Study – milestone checklist

Move on to **Act** only if you have completed **all** of the items on this checklist

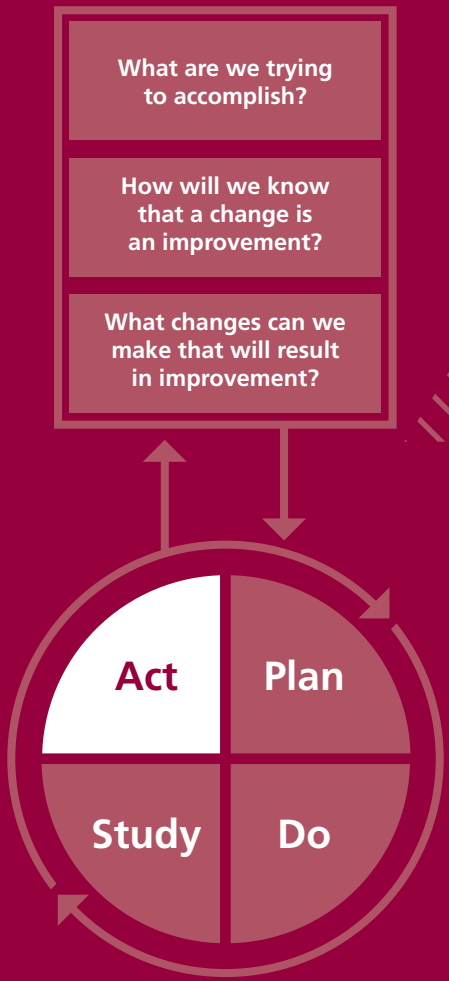
Checklist	Completed?
Collected, analysed and reviewed feedback and data	
Assessed the impact of your changes on your key measures	
Communicated progress	

Effective team-work checklist	Tick if yes
Did all of the team participate?	
Was the discussion open?	
Were the hard questions discussed?	
Did the team remain focused on the task?	
Did the team focus on the area / process, not individuals?	



7. Act

Once you have successfully developed and tested your improvements, you will need to decide whether to adopt, adapt or abandon the change, ensure improvements are sustained and plan for scale-up across the organisation.



Agree whether to adopt, adapt or abandon the changes

Once your team has undertaken the data analysis and reviewed the feedback, they will need to decide whether to:

- **adopt** the change if it has been a success and look to roll it out to other areas
- **adapt** the process in some way to improve it further. Perhaps the change has not achieved the desired outcome, by adjusting or modifying it slightly it may be more successful. If changes are decided, you need a further period of study to understand whether the adaptation(s) have worked or not
- **abandon** the change if it was not successful. Remember, many of the changes you propose may not be successful: do not consider this as a failure but an opportunity for further improvement. In this situation carefully analyse as a group what you have learned and what you would do differently next time. Are there things you have learned that are useful to the wider group working on other parts of the programme? If so share them.

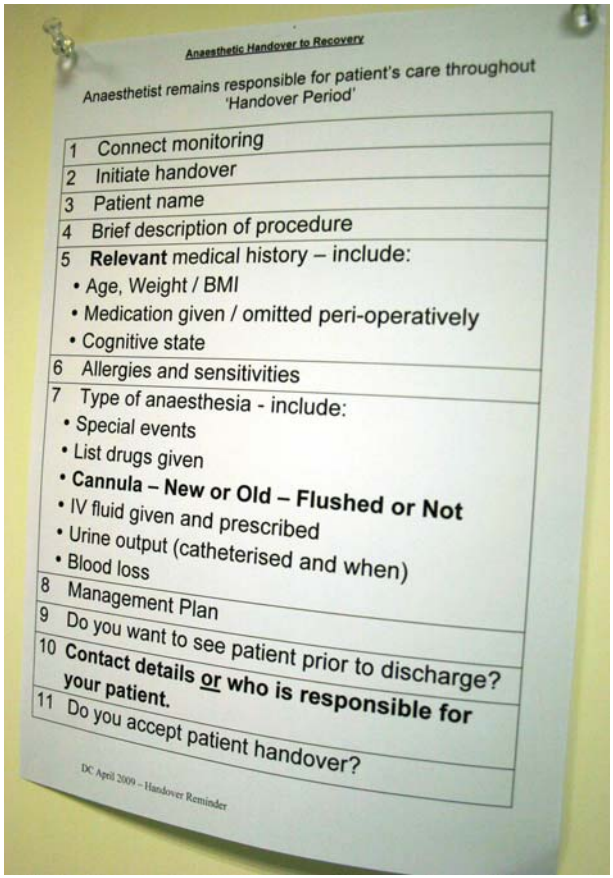
Tip: *The model for improvement encourages the testing of lots of ideas through small cycles of change. It is expected that many changes will need to be adapted before they are adopted. It is also expected that changes will be abandoned which is why you should first test ideas on a small scale in a supportive environment.*

Create standard processes

Once you have decided to adopt a change, it is important to 'lock down' the new process and embed it into your new way of working. Building standardised processes into your handovers (rather than simply assuming it will be covered) is one way you can support improved patient safety. Documenting your new process, making it visible and easy to understand will help your team, particularly new or temporary staff, to implement and adhere to the new standard.

Standardising your new processes supports continuous improvement as it will provide a new benchmark from which you can measure and make further improvements.

Example: standardised handover checklist is visible on the wall of each bay in recovery



Celebrate and share successes

Display notable successes and feedback to everyone in your team – also discuss them.

Ensure that senior management are aware of these and the teams involved. Too often only problems are escalated – it is good to report progress and see teams and the service developing. It is also satisfying for staff to know that their good practice is identified and recognised by senior managers.

Continue to monitor and review

- It is important that you continue to collect, analyse and review your key measures, to encourage sustainability in both the original area of implementation and the new areas that you have rolled-out to.
- Once you are satisfied that the change is an improvement and is being sustained, you may reconsider the frequency and the number of measures that you collect, analyse and review.
- As soon as you take your 'eye off the ball' there is the possibility that changes will not be sustained so continue to monitor high level key measures.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NHS Foundation Trust
NHS

Sustain the changes

As much effort, if not more, needs to go into the sustainability of a change as that required during the planning and starting of it. Sustaining new ways of working is always a challenge. The NHS Institute sustainability model identifies ten factors that are key to the sustainability of any change; they are explained in the table below. These should be considered. Before you plan to scale-up your improvements across the organisation.

	Factor	Things to consider
Staff	Clinical leadership	• Recruit clinical champions to support and influence their peers through the changes.
	Senior leadership	• Senior theatre staff and managers supporting and driving the improvements.
	Training and involvement	• Provide training on the changes for those that are affected by them so that they understand any new systems and processes. • Provide the information and develop a framework of review and support that will encourage active development of good practice.
	Staff behaviours	• Teams will only own their own performance if they are empowered to do so, continue to involve staff in developing the changes further. Use your champions to influence their colleagues.
Organisation	Fit with organisational goals and culture	• Show how the change fits with your Productive Operating Theatre vision and the wider organisation strategy.
	Infrastructure	• Formally incorporate any new roles and responsibilities that people have as a result of the changes into their job plans. • Develop standardised processes that embed the changes.
Process	Benefits	• Discuss with staff involved what the benefits of the new way of working are for them.
	Credibility of evidence	• Share the qualitative and quantitative benefits that you have collected through the testing cycles to engage colleagues across the four domains during roll-out.
	Monitoring progress	• Continue to monitor the progress of the changes so that teams can see the impact of their efforts.
	Adaptability	• Consider how the change will adapt to a different theatre team, speciality or site – do modifications need to be made?

To identify if there are factors you need to focus on to increase the sustainability of your improvements, complete the sustainability model which is available at www.institute.nhs.uk/sustainability

Plan for scale-up across all theatres

Adoption of your new handover processes will occur naturally to some extent as staff see and understand what you've achieved and the benefits it's delivered. However scaling-up improvement across the whole organisation presents a significant challenge, you therefore need to take into account various important considerations when planning for this. The steering group or the programme team may have clear thoughts on where and how to migrate the improvements across all theatres.

Importantly, scale-up across other teams will involve using the same improvement methodology and approach, but successful implementation will rely on a careful balance between standardisation and flexibility to avoid duplication, confusion and frustration.

Standardisation – to what extent should the improvements created in the showcase area be scaled-up across the whole theatre department? For example, once a standardised process for handover has been developed and tested with the showcase area, it maybe both practical and effective to use this across all theatres within the organisation.

Flexibility – to what extent should the improvements created be developed by the individual teams as they work through the modules? The showcase teams in particular need to be open to the prospect of further modification of the documents or tools they created, eg what works for a cardiac team may need some adaptation and development to be right for a day case unit.

However good you think your new processes are, do not be tempted to send out an instruction to all staff to implement them. Experience has shown that, at best, they will reluctantly carry it out until you are no longer watching. At worst, they will simply refuse. Staff have to be won over by engaging them, showing them the evidence that it works (qualitative and quantitative) and involving them in modifying the process to be fit for purpose in their particular clinical context. This takes time and perseverance.

Key considerations

There are many considerations to take into account before embarking on your scale-up plan. The degree of success you achieve will depend largely on:

executive commitment and support for the programme

sequencing – which specialties will you scale-up to and in what order, in what time frame?

coverage and completeness – think about how you will plan for and monitor the extent to which modules are being implemented across each area within your organisation and the extent to which each modules' aims have been achieved.

clinical engagement and the degree to which your clinical champions can encourage and influence clinical colleagues across theatres

data and information analysis is crucial to understanding your baseline position, and also what impact, or return on investment the programme is achieving for the organisation

staff availability to test and implement change is difficult during the initial phase involving just one speciality or showcase theatre. This becomes an even greater challenge when planning for scale-up across the whole theatre suite.

key roles in the programme such as programme leader ensure consistency and pace throughout the programme. Insufficient time allocation, vacancies or inexperience can only add delays, lack of continuity, or at worse, collapse of the programme.

governance structures provide a vital framework for any improvement project. As your programme progresses through the modules and develops from showcase theatre across the entire theatre suite, so the communication and reporting mechanisms will need to evolve to ensure continued rigour and focus on achieving the programme aims.

Don’t stop improving!

Just because you have decided to adopt an improvement does not mean that the work is complete.

Your new way of working with the improvements embedded now becomes your current state. Continue to look for the opportunities to improve it further. It is likely that as you scale-up and engage more teams, they will come up with more ideas of how the changes can be refined and improved further, or adapted to meet their particular needs. It is important to continue to provide opportunities for your wider teams to be able to influence and develop the new ways of working.

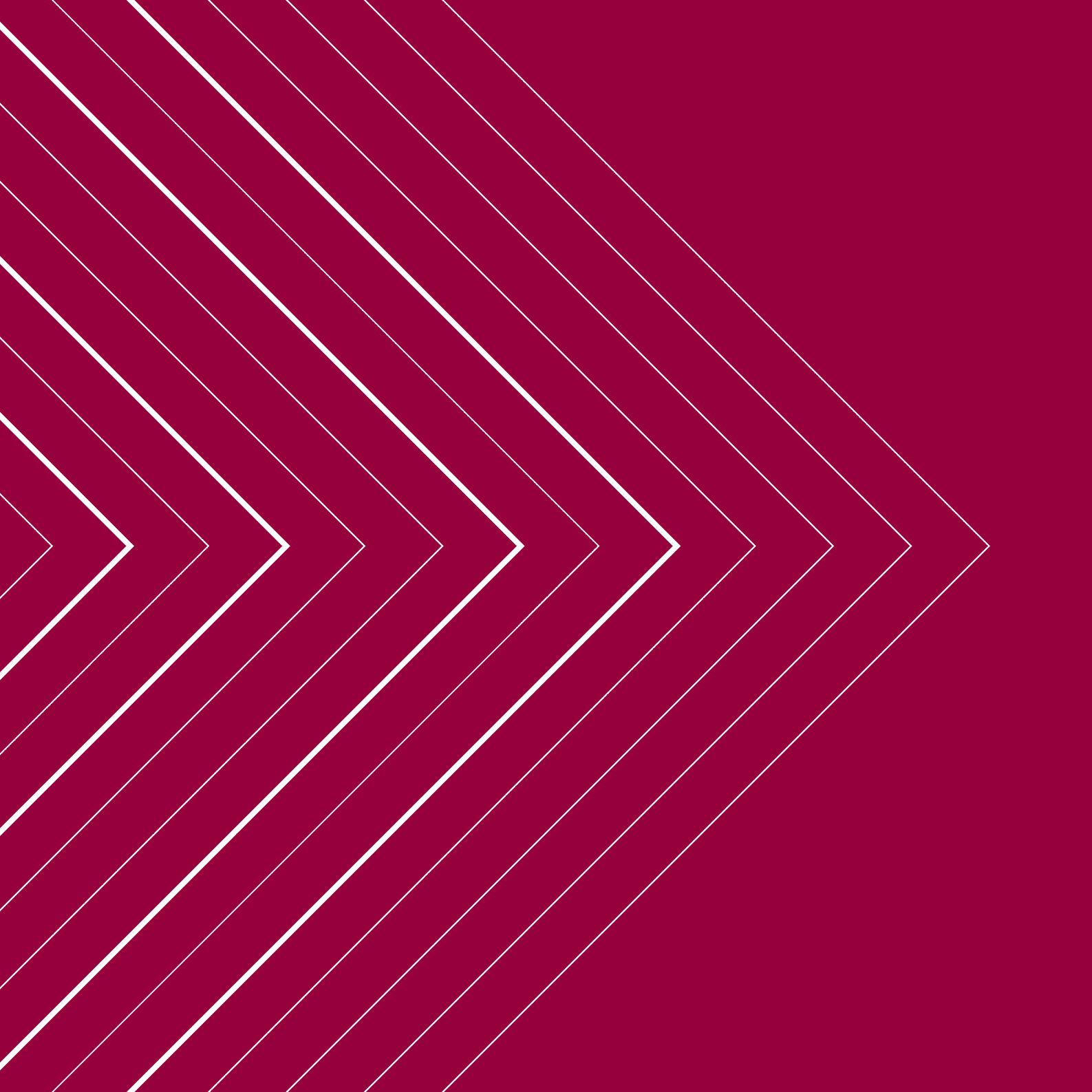
By doing this you will be creating a culture of continuous improvement within your department, where improvement is seen as an integral part of the working day, not an additional activity. Furthermore, your teams will have the knowledge, skills and confidence to lead the process themselves towards the ultimate aim; The Productive Operating Theatre.

Act – milestone checklist

Move on to your next **PDSA** cycle only if you have completed **all** of the items on this checklist

Checklist	Completed?
Agreed which changes to adopt, adapt or abandon	
Celebrated and share successes	
Agreed how you will continue to monitor and review	
Completed the sustainability model to ensure the changes are maintained	
Planned for scale-up	

Effective team-work checklist	Tick if yes
Did all of the team participate?	
Was the discussion open?	
Were the hard questions discussed?	
Did the team remain focused on the task?	
Did the team focus on the area / process, not individuals?	



8. Learning objectives complete?

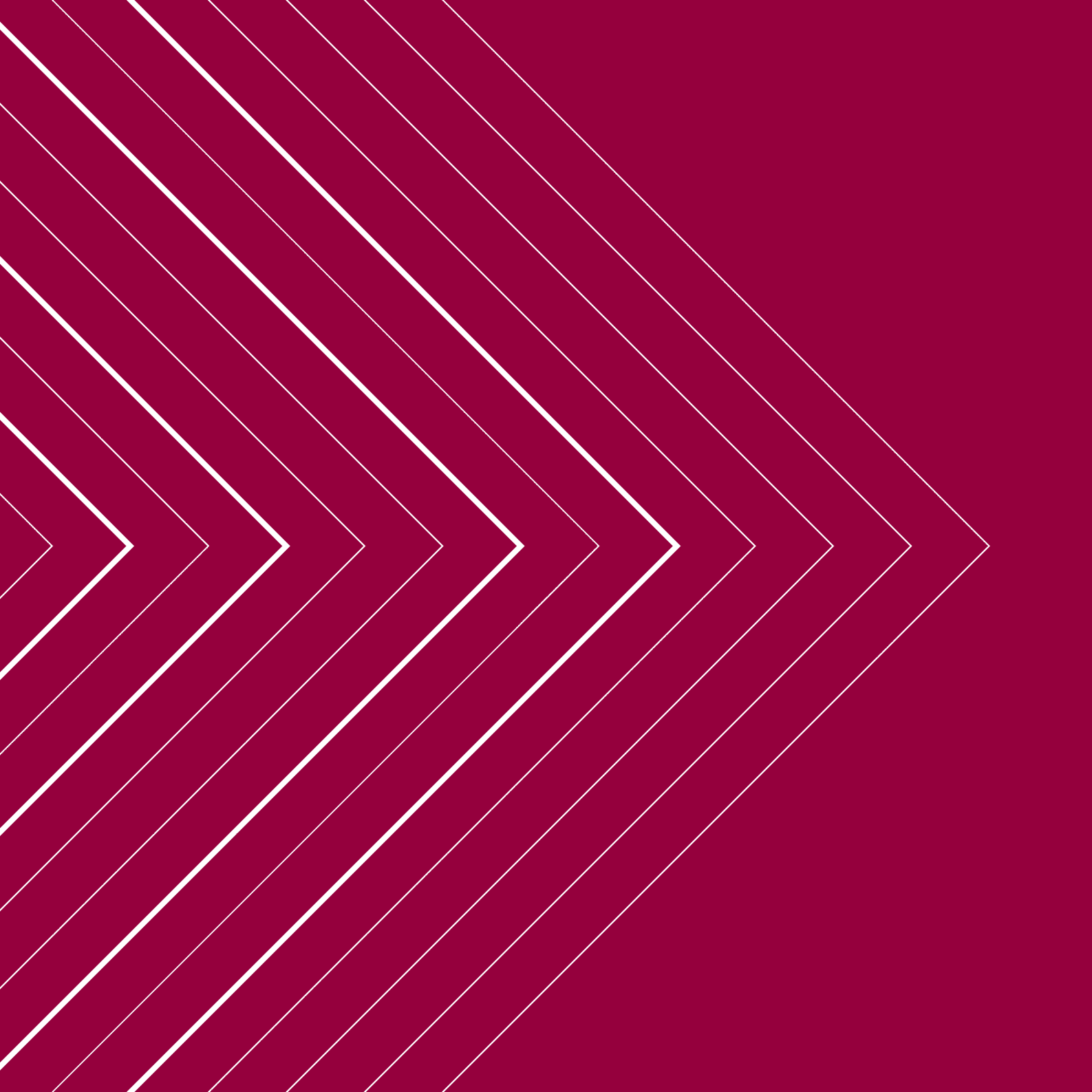
Learning objectives were set at the beginning of this module. Test how successfully these objectives have been met by discussing your Handover 'journey' with your team and asking them the questions in the following table.

The results of this assessment are for use in improving the facilitation of this module and are not a reflection of staff aptitude or performance. The questions are broad and the responses will relate to the experience at your organisation. Some suggested answers have been given, if the responses from your team broadly fit with the suggested answers, then the learning objectives have been met.

For the objectives that have only been partly met, think about how you can change the way you approach the module next time.


SOLARIS
ADULT
27-35cm

Questions	Possible Answers
Why are effective handovers so important for patient care?	• Effective transfer of information and responsibility is crucial to improving patient safety and continuing to deliver a high quality of patient care as the handovers are complete, accurate and concise
How can you recognise the potential for errors in transferring information at handover points, especially errors of omission?	• By having robust up to date handover proformas demonstrating best practice • Once adopted it is easier to recognise an error
What is your understanding of how standardising the procedures for handovers make errors less likely?	• Standardising the process of information transfer at each stage and at shift handover ensures the same questions are asked and standard information given which leaves no room for variance or omissions • Individuals understand their role and responsibility in the handover processes • The new handover proformas are based on nationally and local standards and guidelines • Agreed by the MDT
How have you developed new handover tools such as checklists and proformas to ensure safe robust processes are achieve and time is saved?	• Formed a MDT group and clear leadership with a module lead • Discussed best practice and implemented the model of improvement • Trialled a number of PDSA cycles • Developed a number of robust clear Standard Operating Procedures which are easy to assess. • Based on standards created by the team



9. Appendices

Appendix 1
References and further reading

Royal College of Anaesthetists
Guidelines for the Provision of Anaesthetic Services - 2009
www.rcoa.ac.uk

The Association of Anaesthetists of Great Britain & Ireland
Immediate Post anaesthetic Recovery
e-mail: info@aagi.org
www.aagbi.org

Association for Perioperative Practice 2007
Standards and Recommendations for Safe Perioperative Practice
Association for Perioperative Practice 2007
www.afpp.org.uk

Association of Perioperative Registered Nurses
www.aorn.org/PracticeResources/ToolKits/PatientHandOffToolKit

Williams, S. Dropping the baton
Casebook, Vol. 18 no. 1 (January 2010)

TO ALL STAFF

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West Middlesex University Hospital NHS Trust