GRS
Global Rating Scale

JAG
Joint Advisory Group
on GI Endoscopy

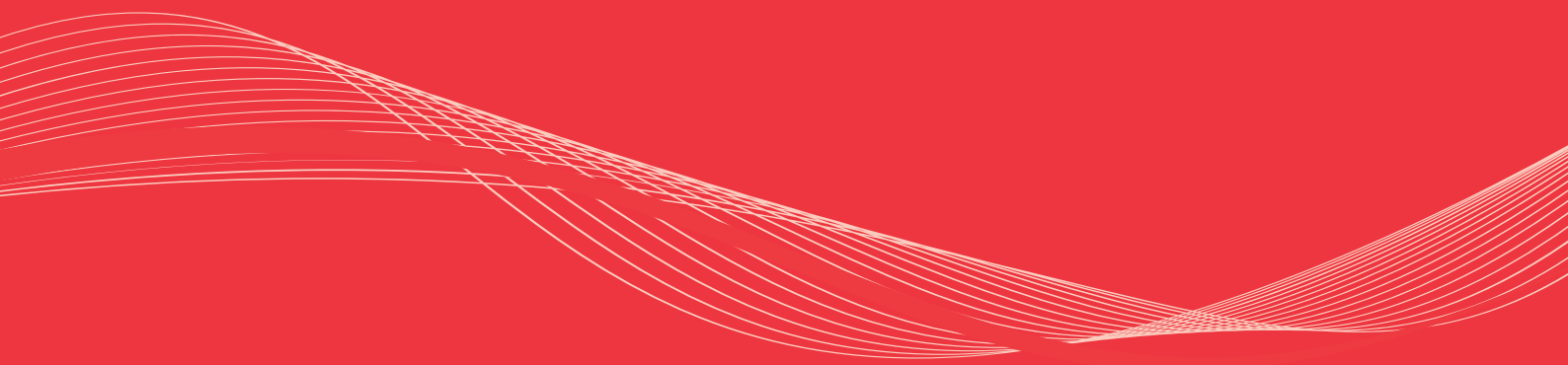
NHS
Improving Quality

The Productive Endoscopy Unit

Building teams for safer care™

Session Start Up and Patient Change-over

This document is for endoscopy coordinators, nursing staff, matrons, managers, clinical directors, endoscopists, anaesthetists, gastroenterologists, gastroenterology surgeons and improvement leads



Purpose of this module

Session start up and Change-over play a vital role in ensuring that endoscopy rooms run efficiently. A high performing team is consistently well prepared and starts on time with a full multidisciplinary pre-session brief. This sets the standard and the momentum for safety and efficiency for the whole day, with change-over continuing the momentum at the end of each procedure. A well scheduled list that starts on time should also finish on time. All these factors will contribute to creating a high quality patient experience as well as increasing staff satisfaction. Change-over enables the continuation of start up throughout the working day.

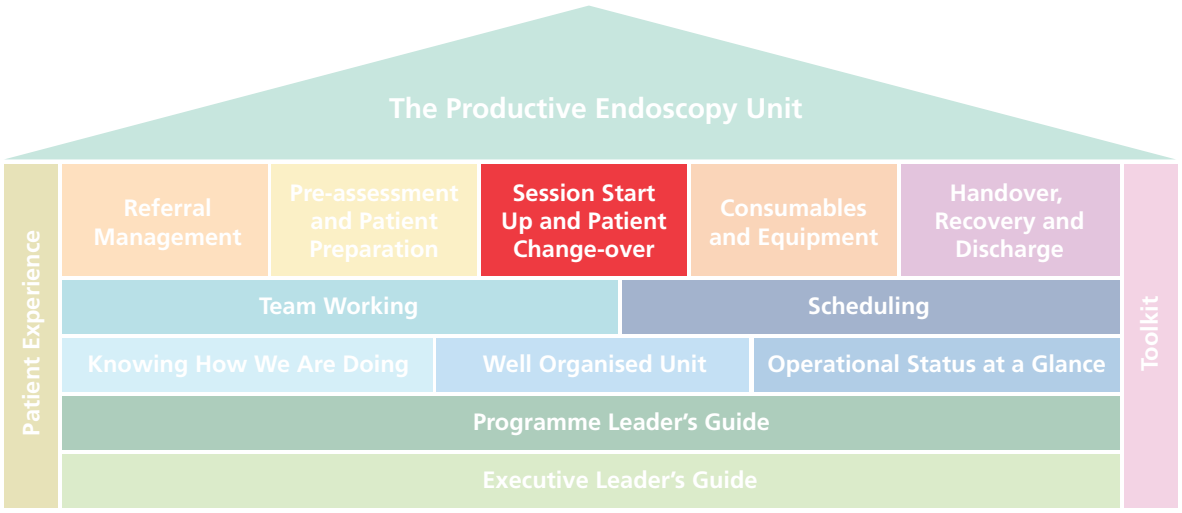
Endoscopists' time is an expensive resource. Used effectively it can help you scope more patients, achieve waiting list targets, and deliver good financial performance. A funded unit standing empty can cost an organisation a great deal of money. Consequently, each department should be working towards making the very best use of their resources – in every session available.

How many times have you observed a late start resulting in either an over-running list or patient cancellation?

Session Start Up and Patient Change-over relies on clear leadership and a focused multidisciplinary team that has a shared goal. This module will enable you to work towards a well prepared department that is appropriately staffed, has the correct equipment available, and ensures that all other resources required are present and correct. It will help you and your team to understand your processes and the issues that cause problems during the Session Start Up and Patient Change-over period, and then develop a local standard that enhances patient safety, reliability and a prompt start.

When lists start and finish on time, this sets the pace for the day, reducing frustration for staff and patients left waiting.

These modules create The Productive Endoscopy Unit



Contents

The Joint Advisory Group (JAG)

Endoscopy units in the UK are regularly assessed by the JAG (Joint Advisory Group) on Gastrointestinal Endoscopy, the body responsible for upholding the quality of endoscopy at a national level. The JAG operates within the Clinical Standards Department of the Royal College of Physicians. The JAG's mission as an organisation is to provide UK wide support for the whole of the endoscopy workforce to ensure they have the skills, resources and motivation necessary to provide the highest quality, timely, patient-centred care.

The JAG provides clear and detailed standards, and frameworks within which to reach the acceptable standards for competence in endoscopic procedures and for endoscopy units for certification, accreditation and reaccreditation. Endoscopy Departmental accreditation is achieved via completion of the Global Rating Scale (GRS). This module of The Productive Endoscopy Unit is mapped to the GRS standards to help staff address any shortfall to achieving the acceptable standards for endoscopy units, endoscopy training and endoscopy services, and is endorsed by the JAG.

This module is produced in association with the JAG and will help you to improve Session Start Up and Patient Change-over in the Endoscopy unit as well as supporting the achievement of some of the Global Rating Scale (GRS) standards to help you achieve JAG accreditation. Whilst session start up and patient change-overs are primarily a part of the productive functioning of the unit, and running of lists and the GRS standards do not relate directly to this module, the Quality of patient experience (privacy) domain standards do have some relevance to this module.

STD NO	Description
D. Quality of Patient Experience - D4 Privacy and Dignity	
10.2	The unit offers a safe environment for patient care
10.3	The unit has screens and/or curtains to provide privacy pre and post procedure
10.7	Gender separation is provided pre-procedure for patients who need to change clothes for their procedures
10.9	Patients' privacy is adequately protected in the procedure room (e.g. by shorts or screens) and there are processes in place to ensure that the room is not entered during the procedure
10.14	Gender separation is provided routinely from the admissions stage onwards in the patient journey, including the recovery area
10.16	There is comprehensive separation between pre and post procedure patients, including in-patients

1. What is the Session Start Up and Patient Change-over module?

What is it?

The Session Start Up and Patient Change-over module offers you a practical and structured approach to improving team performance during the start up and change-over period of endoscopy sessions. The pre-session period is a time of high activity for the multidisciplinary team, as is the change-over period between patients.

The multidisciplinary team plays a vital and interdependent role in bringing all resources together, along with the patient, at the start of the session, the period after the end of a procedure, and before the next patient is scheduled. This module aims to help you examine current practice within your unit, and to help you decide what a good start up and change-over process should look like and how you can make it happen.

Why do it?

An organised and effective Session Start Up and Patient Change-over can:

- Improve the patient's experience and outcomes by reducing delays and cancellations, as well as reducing the factors that can lead to error
- Increase safety and reliability during the session, by improving and standardising practice.

This will enable a successful list that has the potential to run to time:

- Reduce waste such as delays and repetition, and improve start times
- Improve overall efficiency and financial performance
- Prevent staff frustrations during Session Start Up and Patient Change-over.

What it covers

This module will help you understand your current processes for the preparation of an endoscopy session and its continuation throughout the working day, as well as identify issues and barriers to effective working. It will provide you with tools and ideas which will enable you to set about improving the start up of sessions and subsequent change-overs within you own department.

What it does not cover

This module does not offer specific instructions on what to improve in Session Start Up and Patient Change-over within your own organisation. Neither will it enable you to solve problems that you identity that are beyond the scope of your department, but it will provide you with the structure to identify these to take forward in your organisation.

Important Links

All the modules within The Productive Endoscopy Unit link together to achieve the programme aims, some however, are more interdependent than others. Session Start Up and Patient Change-over links particularly closely to:

- **Team Working**: understanding the importance of, and introducing techniques to improve communication enhances multidisciplinary team working. A good session start up and the subsequent change-overs relies upon a high performing team, and culminates in the whole team being ready to start the session and hold the team brief/huddle. Team brief/huddle is introduced in detail within the Team Working module
- **Scheduling**: a good scheduling process will include the allocation of all the resources, both people and equipment, needed for each list. Having the correct resources available, in the right place at the right time, is key to supporting a good session start up. Session start up and change-over is further supported by a well constructed list that will not require last minute changes on the day
- **Knowing How We Are Doing**: collecting, analysing, and reviewing your measures is vital to help you understand if the changes you are making are having an impact. Using this module will support you and your team to create a balanced set of measures that will be useful and relevant, and close to real time, so you can see the impact of the changes they make
- **Well Organised Unit**: helps the team organise their workplace better to support the processes being carried out during Session Start Up and Patient Change-over, simplifying your workplace and reducing waste by having everything in the right place at the right time ready to go
- **Operational Status at a Glance**: using the combination of coordination and communication, real-time data and visual management are used to support the teams to ensure a safe reliable start up across multiple rooms.

Learning objectives

After completing this module it is expected that as a team you will:

- Recognise the importance of a safe, reliable and prompt start of a session and the continuation into the change-over between patients
- Appreciate and be able to articulate the financial implications of any time lost at the beginning of the session and the associated overruns
- Understand the impact of late starts on patients, staff and the organisation
- Understand the multiple processes and tasks involved in Session Start Up and Patient Change-over
- Understand how they can influence a good quality Session Start Up and Patient Change-over
- Measure performance in Session Start Up and Patient Change-over and use this information to identify improvements
- Understand the importance of standardised working processes and clear roles and responsibilities
- Identify, plan and implement improvements in patient change-over procedures
- Agree standards and protocols to speed up activities of start up and change-over while ensuring safe, robust processes
- Recognise the importance of leadership at all levels in ensuring efficient Session Start Up and Patient Change-over
- Develop the skills to take ownership of your own start up and change-over performance and drive the improvement work
- Develop a culture of continuous improvement around safe, reliable and prompt starts to endoscopy sessions.

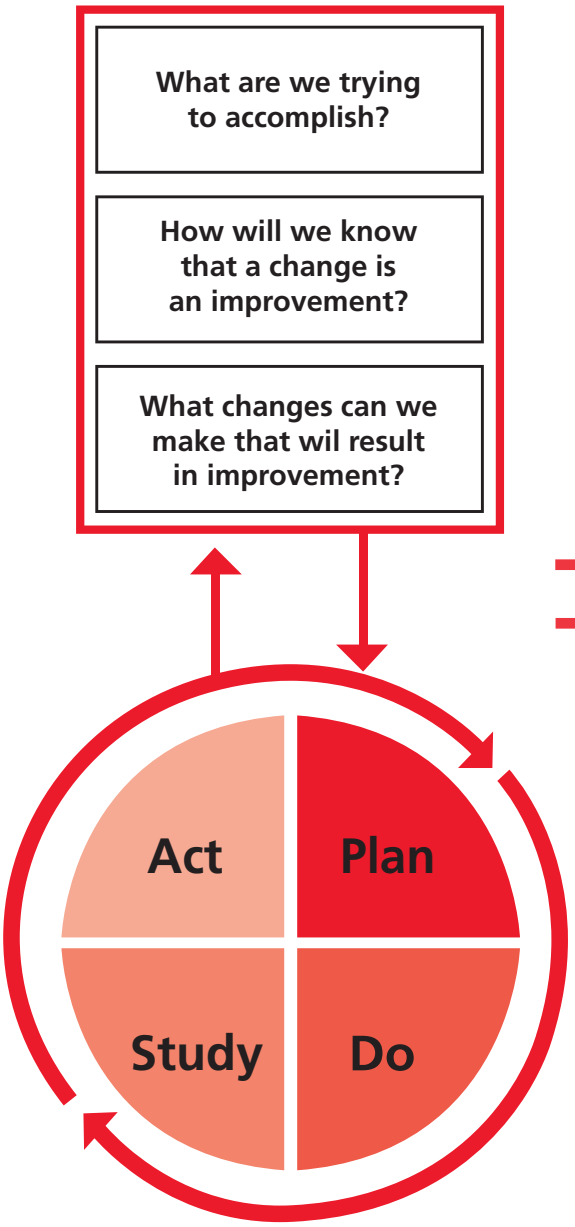
What tools will you need?

Tool
Meetings
Dot voting
Activity follow
Photographs
Video
Process mapping
Cost/benefit analysis
Module action planner
Timing processes
5 why analysis
Glitch count
Stop and start audit tool

2. How will you do it in your endoscopy unit?

This module is structured to take you through the Model for Improvement. Within the module you will implement many small changes, developing and testing each one through smaller cycles of the Model for Improvement. The cumulative impact of these changes come together to achieve the overall aims of the Session Start Up and Patient Change-over module. All the changes made within each of the modules come together to achieve the overall aims of The Productive Endoscopy Unit.

The Model for Improvement and A3 thinking



The three questions

- Read the module
- 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
  - Map your current state
- 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

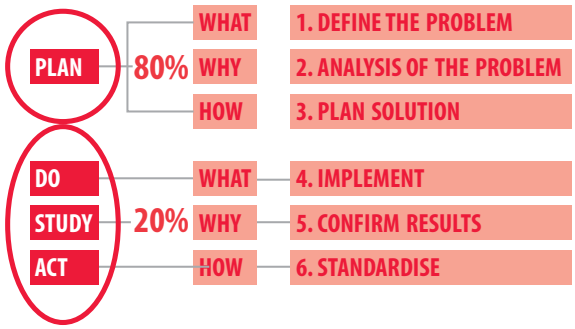
- Agree whether to adopt, adapt or abandon the changes
- Celebrate and share successes
- Continue to monitor and review
- Sustain the changes
- Plan for scale up

A3 thinking

Simply put, A3 thinking is a structured way of thinking deeply about an issue or problem, which follows a series of standard steps (rigorous application of Plan, Do, Study, Act (PDSA) cycle) to produce a concise output as a condensed document or A3 report (11 x 17 inch paper).

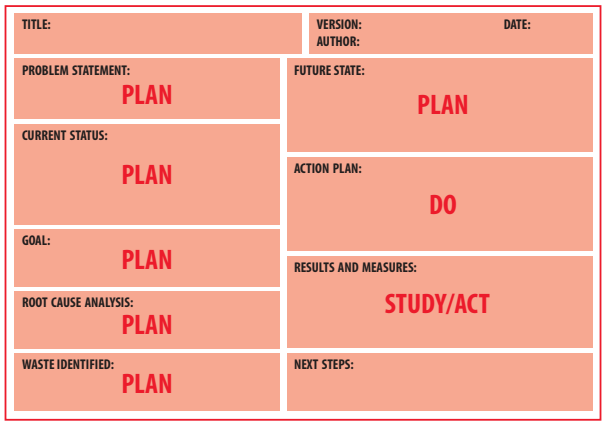
This method of application of PDSA helps to move teams from intuitive problem solving, quick fixes and work-arounds to understanding the root cause (what the problem REALLY is) and developing countermeasures that are staff and patient focussed.

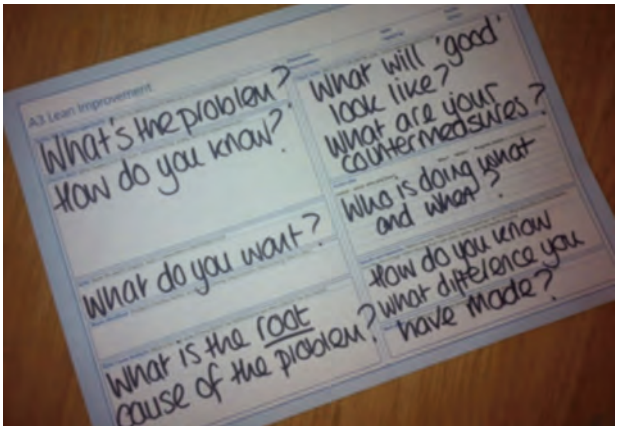
PDSA cycle for improvement



The A3 report will serve as a simple record of your PDSA cycles and the changes made as a result - it is easy to forget where you started from once you are on your continuous improvement journey. A3 templates and further information can be found in The Productive Endoscopy Unit Toolkit.

TIP: Remember to use the PDSA cycle at each section of the A3 to really understand and think deeply about your problem and possible solutions.





3. The three questions and the NHS Change Model

Before you start to implement the Session Start Up and Patient Change-over module, be clear about the approach you are going to take. Take time to read through the module carefully, so that you understand the full scope of what is involved.

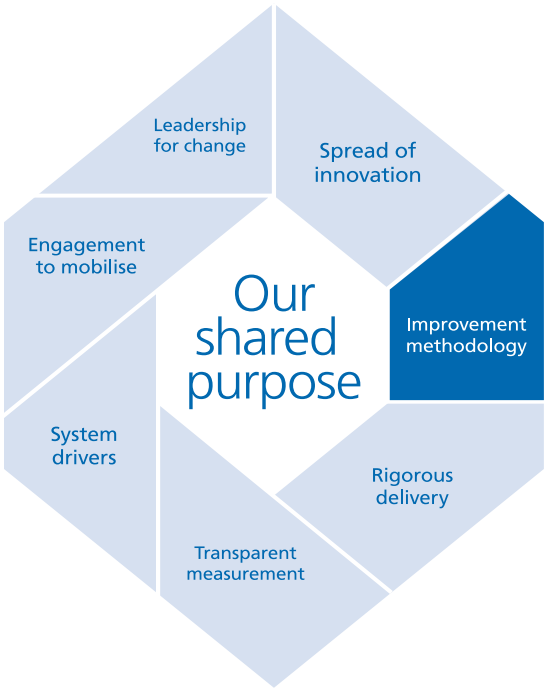
Then work through the three questions from the Model for Improvement. These questions and your answers to them will provide you with a framework that will be fundamental to achieving your improvements.

1) What are we trying to accomplish?
2) How will we know that a change is an improvement?
3) What changes can we make that will result in an improvement?

Why do we need a change model?
The model has been created to support the NHS to adopt a shared approach to leading change and transformation - see http://www.england.nhs.uk/sustainableimprovement/change-model

Building on what we collectively know about successful change, the 'NHS Change Model' has been developed to bring together improvement knowledge and experience from across the NHS into eight key components, which applied together, makes change happen.

By using the model to link with The Productive Endoscopy Unit modules, you can be sure you are applying the principles of continuous quality improvement (CQI) in an evidenced based, systematic application of change management approaches.



Using an evidence-based improvement methodology ensures that the change will be delivered in a planned, proven way that follows established methods, will ensure that the adoption and systematic spread of change is supported more effectively.

- The overall success of change efforts are more likely to be assured
- There is a range of proven methodologies available to support different kinds of change
- The 'Productive' Series can deliver improvements in quality, increased safety, reduced turnaround times, increased efficiency and productivity, improved staff morale and reduced costs

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 Session Start Up and Patient Change-over module will contribute to achieving both your local vision for The Productive Endoscopy Unit, 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.

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

Simple – give the aim a clear definition (e.g. reduce turnaround time)

Measurable – ensure that data is available

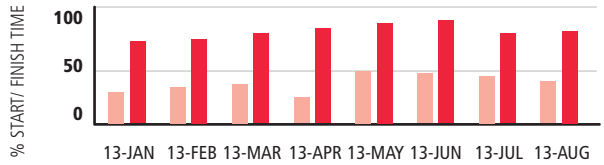
Aspirational – set the aim high to provide a challenge to the team but make sure it is achievable

Realistic – take into consideration factors beyond your control which may limit your impact

Time bound – set a deadline.

Once agreed as a team, communicate the module aim(s) on your Knowing How We Are Doing boards, showing clearly how the aims of this module link to your vision.

START – FINISH TIME



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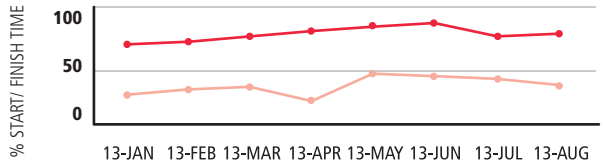
START TIME	29	34	37	23	49	48	47	44
FINISH TIME	74	75	77	80	83	85	77	78

START – FINISH TIME



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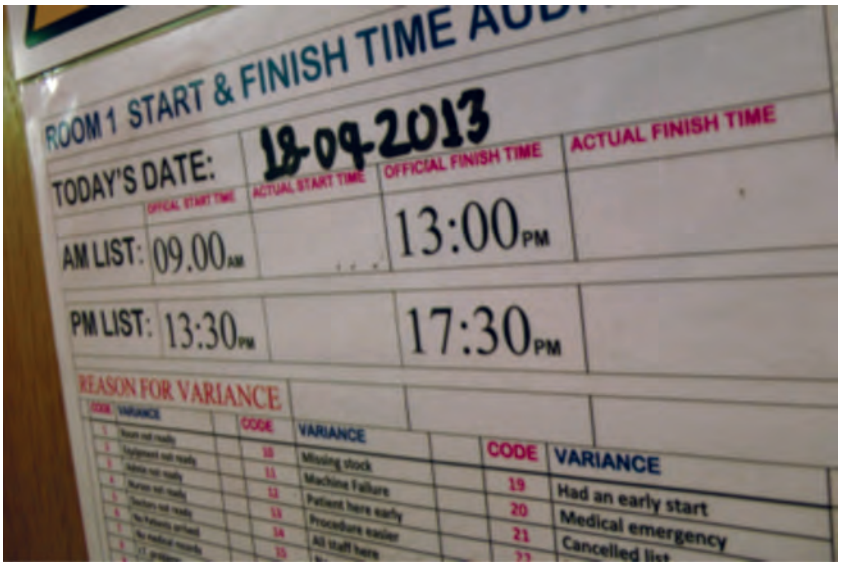
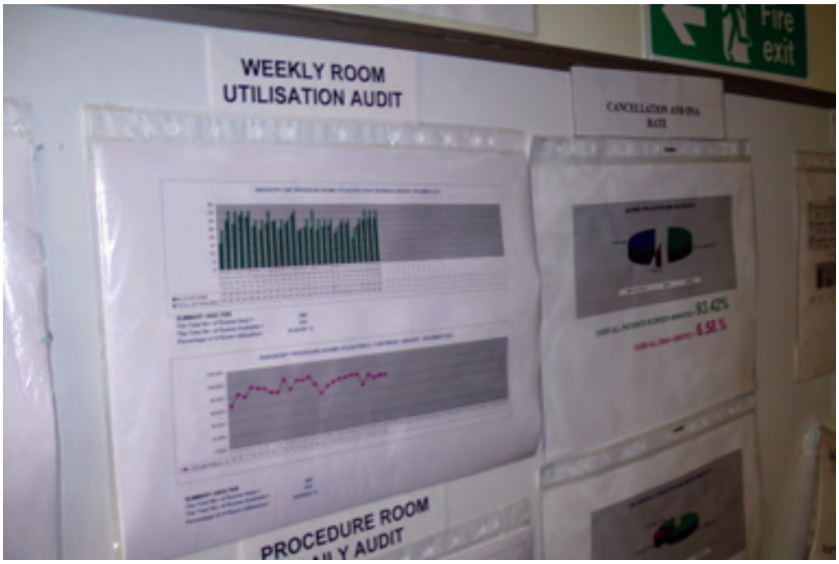




2. How will we know that a change is an improvement?

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 an 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 improvements from the Session Start Up and Patient Change-over module be represented in this set of measures? If the changes you decide to make are not reflected in your original set of measures, you may need to include additional measures that will capture the impact of this module. The suggested measures sheet in Knowing How We Are Doing, and the suggestions on the following page, will give you some idea of how to do this.

Module measures session

To explore this further run a Session Start Up and Patient Change-over measures session with the team that is going to be involved in this module. A suggested set of slides for this session is available as part of the Toolkit that accompanies The Productive Endoscopy Unit.

The aims of this session are to:

- Refresh the team's understanding of how to use measurement to drive improvement
- Understand how the Session Start Up and Patient Change-over module fits into your agreed balanced set of measures
- Identify measures for the module
- Decide how to collect, analyse and review the information – making this as 'real-time' as possible in order to make it more meaningful for the team
- Complete a measures checklist for the module.

It is really important to agree your definitions e.g. (need to change). Use the measures checklist to help you (see the Toolkit).

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

Example measures

Here are some ideas of measures for Session Start Up and Patient Change-over. Some of these you may already be collecting – your choice may be influenced by specific issues within your own department.

- Number of minutes that each session and procedure starts late plus the reasons why
- Number of minutes taken for each patient change-over
- Number of minutes that each session and procedure finishes late plus the reasons why
- Number of minutes late that each session finishes and the reasons why
- Start time of all sessions and procedures by room
- Start time of each room by week
- Start times by individual session
- Start time of sessions and procedures across all rooms by week
- Reasons for late starts and the incidence of these – a Pareto diagram can be useful
- Number of glitches encountered e.g. incorrect or unavailable equipment
- Percentage of procedures turned around within a target time (by room or list)
- Financial costs of lost session time at start up and change-over

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.

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

Having read the module and agreed on a clear aim, you will be starting to use your data and initial feedback to identify the problems and issues that you have in Session Start Up and Patient Change-over. You will begin to identify changes that you could make within your department that may result in improving your performance.

You will have an overall idea of what you want to achieve from this module. However, the detail of what you can achieve and how you achieve it will become clear through your diagnostic work, such as your data collection, analysis, feedback and process/value stream mapping.

Throughout the module you will find a number of examples of ideas that have been implemented in other sites. However, the changes you implement as a result of working through this module will depend on your own organisation's current state and the constraints you are working within both physical and cultural.

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

Examples of changes that have been successful at other sites:
Raising awareness across teams of the aims and rationale for a prompt, safe and reliable start to sessions and procedures
Quantifying the cost per minute of funded but unused time, per individual room, and sharing this information with the team
Ensuring that clear definitions of session times are available and understood by the team
Advance planning for the day
Standardised working to ensure consistent start up and change-over by the different groups of staff
Process mapping of the timelines of different pathways leading to the start up of the rooms and working on key interdependent times
Development of real-time data for teams to understand their own performance and plan improvements
Clearly defining roles, responsibilities and the active leadership required
Problem solving and simple root cause analysis of reasons for delays, to fully understand individual problems
Senior leadership actively monitoring and supporting performance

The three questions – milestone checklist

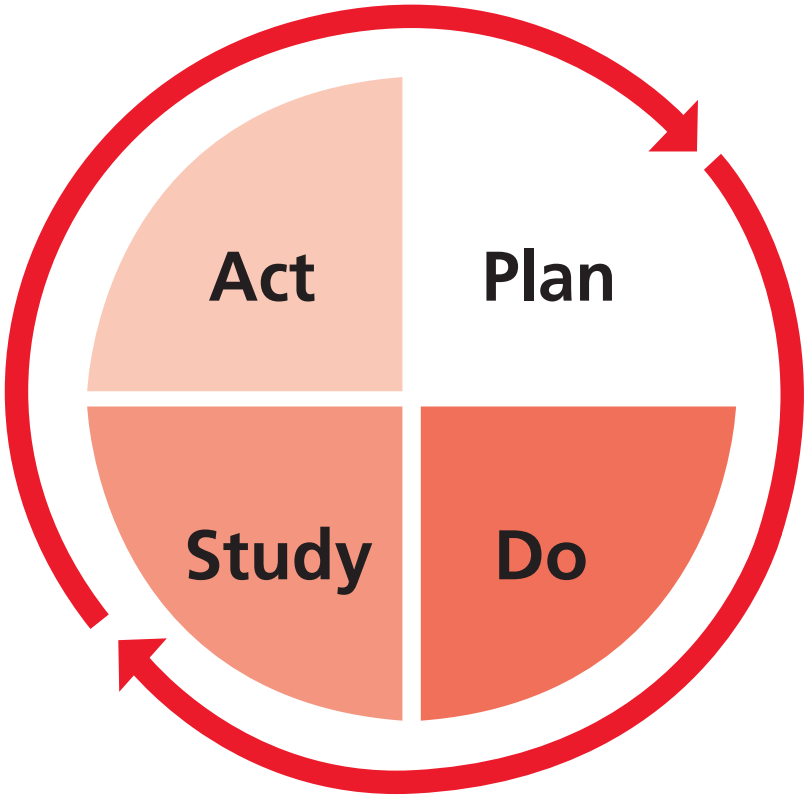
Move on to **Plan** only if you have completed **all** of the items on this checklist.

Checklist	Completed?
Read the module	
Decided and communicated a clear aim for the module	
Held a module measures workshop	
Agreed how you will measure your changes	
Thought about 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 Session Start Up and Patient Change-over module.



Ensure strong and visible leadership

A safe and reliable session start up, and subsequent change-overs, is critical to a high performing endoscopy department. Strong interest and support from senior clinical and managerial leaders will help the team to understand the importance of implementing this module. This will also ensure sustainability.

- Discuss implementation with the senior operational and clinical leaders to ensure their support and visibility for this area of work
- Discuss how you will implement the module and identify the support you may need
- Discuss how the executive leader will support this work

TIP: Are your clinical leaders articulating the need to improve your department's start times/change-over times, and leading the drive to achieve this? Endoscopy teams are responsible for starting on time; senior staff are accountable for ensuring value and efficiency and should be leading the team and articulating their expectation.

Enablers for a successful Session Start Up and Patient Change-over module

- Are your key senior team, such as clinical director, directorate manager and matron, engaged and supportive? For example, your clinical directors will be key to helping and influencing clinicians to find solutions for the issues that prevent them from being able to complete their pre-session rounds, and arrive in the unit on time for the multidisciplinary team briefing/huddle
- Has your unit manager and senior staff, understood the importance of starting sessions and continuing the subsequent procedures on time? Are they driving this and working with their teams to find 'real-time' solutions?

Create the team

The programme team should understand the importance of involving all groups of staff in implementing the changes tested in PDSA cycles, as well as evaluating the results. You will need to identify a team to take this module forward. This should include a champion/champions who will have the vision and ability to take Session Start Up and Patient Change-over forward, with the support of the programme leader and service improvement expert. This module will involve several disciplines and will link into the Pre-assessment and Patient Preparation, Scheduling and Operational Status at a Glance modules.

Consider involving your:

- Gastroenterology surgeons/gastroenterologists
- Unit manager and matron
- Senior nursing staff
- Improvement leader
- As many of the Endoscopy team as possible – mixed grades and disciplines
- Relevant stakeholders such as ward, clerical and portering staff, as appropriate to your own structure.

The team should meet regularly (see meetings in the Toolkit). These meetings will provide a good opportunity to review progress and data.

Communicate, engage and raise awareness

As part of the start up phase for implementing the Session Start Up and Patient Change-over module, it is important that the clinical team understand what Session Start Up and Patient Change-over is, why it is important and what benefits it will deliver. You can never communicate too much, so use several of the suggestions listed below to ensure your team are fully informed and ready to go.

- Meetings
- One to one discussions.
- Posters, newsletters and endoscopy message book
- Information on your Knowing How You Are Doing board, including measures and quotes from staff and patients
- Email

Clinical engagement

Crucial to this module is clinical engagement. We know from visioning sessions and from data gathered during testing, that clinicians arriving late into the unit is an issue in many organisations that prevents a prompt session start up. There are many reasons why this may be the case and it is often beyond their immediate control.

This module provides the tools to understand the many processes involved in the session start up period, and address the issues that prevent clinicians arriving on time and starting promptly.

In addition to the clinicians in the project team, recruit surgical champions who you can work with to understand what causes the delays and how the issues can be addressed, and also influence their colleagues.

> *"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 will win over a number of unexpected allies."*

Ed Seward, Clinical Lead, Whipps Cross Hospital, Barts Health NHS Trust

Understand your current state

To be able to progress with any improvement, you need to understand the 'current state' of the areas that you are working on. This involves examining all aspects of the current situation and gathering information from a variety of sources.

The level and focus of your activity within this module will depend upon your current performance, and the particular issues that you are experiencing with your session start ups and change-overs.

A safe, reliable and prompt session start up, and the subsequent change-overs, relies on three high level processes that run concurrently, they are:

- Patient admission and preparation
- Pre-operative review of patients
- Room set up

The completion of these processes mark the end of session start up and patient change-over, and the beginning of the endoscopy session. Each session will begin with a full multidisciplinary team briefing.

Each of the three high level processes can be broken down into a number of lower level processes and tasks. It is important to take all of these into consideration, and understand the relationship between them, as you develop your understanding of your current state and begin to plan your improvements. This will help you identify the root cause of delays.

Patient preparation is an important process that it is covered in detail within its own Productive Endoscopy process module, Pre-assessment and Patient Preparation.

A process that takes longer than the time available is likely to cause late starts and can also lead to short cuts, potential errors and frustrations for patients and staff.

Gather and review 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 Session Start Up and Patient Change-over. 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 using the stop and start audit tool (see the Toolkit)
- Review all of the data in order to be able to understand your current state
- Look at data specifically concerning your current session start times performance:
  - Are all your rooms performing well in this area?
  - Do you actually have a problem?

What other data have you collected and what does it show? You may decide at this point to collect additional information.

- If late starts are a problem, it will be helpful to collect the reasons for the late starts and to prioritise the main areas for improvement - a simple Pareto chart can be used to visually display this data (see the Toolkit)
- It may also be helpful to capture data on glitches (issues and problems) that affect start up so that you can see what the common problems are in specific clinical areas (see the Toolkit)
- How do you currently share this information as a team and can this be improved?
- For guidance about how to analyse and present your data see Knowing How We Are Doing

TIP: Do you have easy access to the necessary data? If not, engage your IT/information team as early as possible to help you produce reports that can provide you with user friendly information, in a timely way that makes it meaningful to individuals. Teams will be able to respond better to 'real-time' information.

A really collaborative relationship with your IT and information departments can take some time to develop. The importance of investing time and effort into building this relationship should not be underestimated.

"Start/stop audit data can be an eye opener! - especially the variation in time taken between patients. The best teams we've worked with scrutinise this data and try to standardise room change-overs."

Lisa Smith, National Improvement Lead, NHS Improving Quality

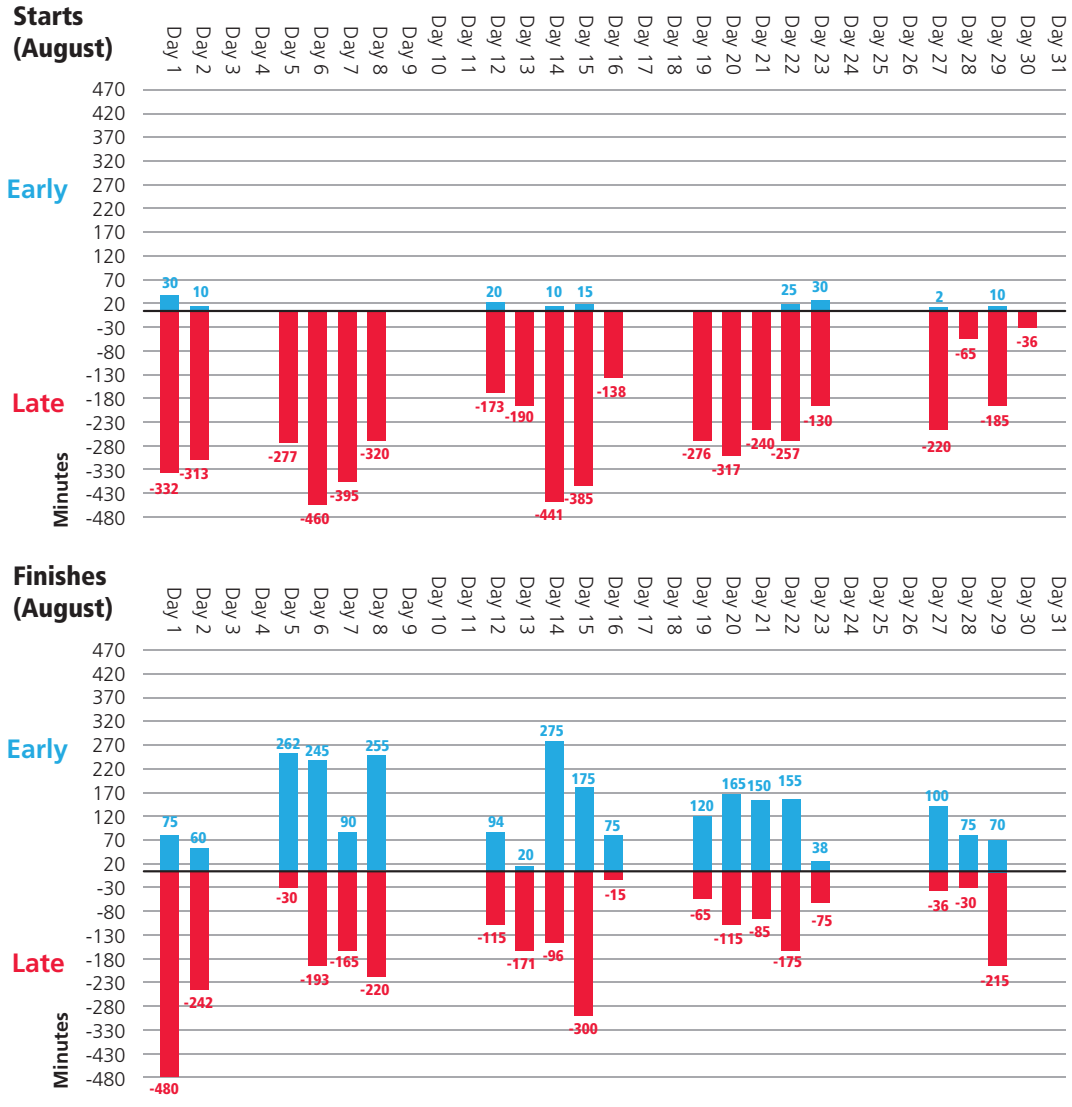
Review ideas that have worked elsewhere

Example one: Using data to ensure lists start on time
- Royal Liverpool and Broadgreen University Hospitals NHS Trust

Problem
Starting the lists on time each morning was problematic. There were many reasons for the delays but no one ever took responsibility for them.

What we did
As part of The Productive Endoscopy Unit programme, the department completed a stop and start audit for each room each day, recording the scheduled start and stop times, the actual start and stop times and the reason for any variance.

This data was recorded on a spreadsheet and a report generated that showed exactly what was happening.



Some of the reasons for the late starts were as follows.

- Room not ready = 21%
- Endoscopist not ready = 26%
- Nursing staff not ready = 8%
- Equipment not ready = 4%

The main reason cited for late finishes were that the procedures were complex, this accounted for 43% of late finishes, with most Fridays finishing late by an average of 79 minutes.

	Mon	Tue	Wed	Thu	Fri
On time	53%	50%	40%	25%	29%
Late	29%	39%	35%	65%	71%
Early	18%	11%	25%	10%	0%
Average mins late	10	12	8	31	79

Impact

- By collecting and analysing the data, it was clear to see the extent of the sessions starting late and the impact it was having on patient waiting times, and staff finishing times
- This was discussed at a senior team meeting and it was agreed that the senior management team would maintain a high profile presence from 08:30 – 09:00 hours, to provide leadership and direction to staff and support the area coordinators to get the rooms started promptly at 08:35. This allowed the unit coordinators to trouble shoot any issues, and make sure that everyone is in the rooms and ready to start on time
- The clinical lead is responsible for ensuring that all the endoscopists are aware of the data and the need for them to be in the department and ready to start by 08.35
- The impact of this "high profile manager" role has been significant with 3 out of the 4 rooms starting on time within the first week of implementation
- Issue that are identified as impacting on start times are also fed back at a weekly senior managers meeting

Example two: Start/stop interruption audit - Portsmouth Hospitals NHS Trust

Problem

- Patient flow was variable
- Long turnaround times between patients were making lists overrun
- Some lists moved faster than others

What we did

- Monthly start stop audit
- Discussed at Friday morning nurses meeting, to raise awareness of the audit and initial findings
- Added an extra patient onto inpatient lists, where possible, to improve turnaround times for inpatients
- Ensured admitting nurses have staggered starts

Findings

Data showed it could take anything between 3–19 minutes for changeovers between patients. This variation needed further root cause analysis to find out the 'real' reasons for delays and put actions in place to reduce them.

Impact

- Reduced waiting between patients on each list
- Less lists running over time
- The mere fact that an audit was taking place has ensured staff are ready on time
- Increased awareness of lists monitored made the whole team aware of lists running behind
- Healthy competition between rooms has been engendered - no-one wants to be seen as the late laggards!
- Coordinator makes sure inpatients are ready if there is a slot at the beginning of a list
- The team are encouraged to discuss at the start of the list 'who' is responsible for 'what' role in change-overs between patients
- The GP/ERCP (Endoscopic Retrograde Cholangio Pancreatogram) list team attend a brief prior to the list start. The purpose of this is to identify everyone's roles according to the WHO (World Health Organisation) checklist
- Rooms are stocked up in the evening and it is part of the daily huddle to review if they are ready, to stop interruptions to flow mid-list in search of consumables

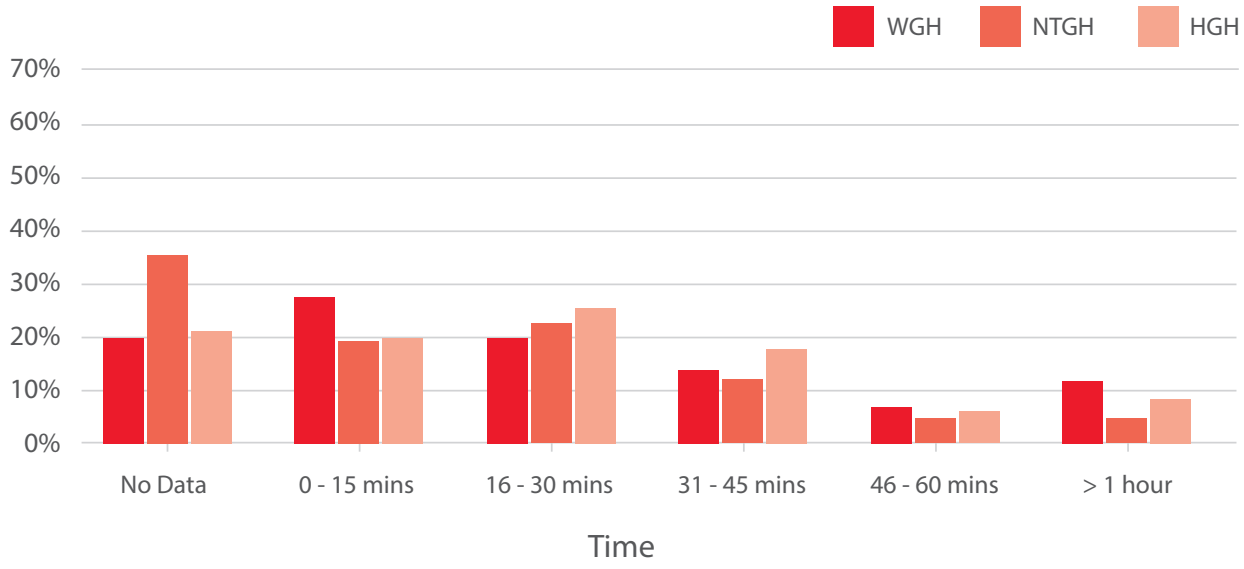
Example three: Reducing change-over times – the importance of data!
- Northumbria Healthcare NHS Foundation Trust

To understand exactly what is happening in the unit, data must be collected via audit to gather the 'factual' reasons for delays in the endoscopy pathway. If this cannot be obtained directly from the departmental IT system, then a manual audit should be undertaken. Whilst this is laborious, it is imperative to get a complete data set so that improvement decisions can be made, and PDSA cycles initiated.

The following are examples of data collected across the Trust, with some root cause analysis performed.

Interval from arrival to admission (all patients)

Site	No data	0 - 15 mins	16 - 30 mins	31 - 45 mins	46 - 60 mins	>1hr	Range
WGH	20%	28%	20%	14%	7%	11%	00:00 / 01:45
NTGH	36%	20%	23%	13%	4%	4%	00:00 / 02:00
HGH	21%	20%	25%	19%	6%	9%	00:00 / 01:50



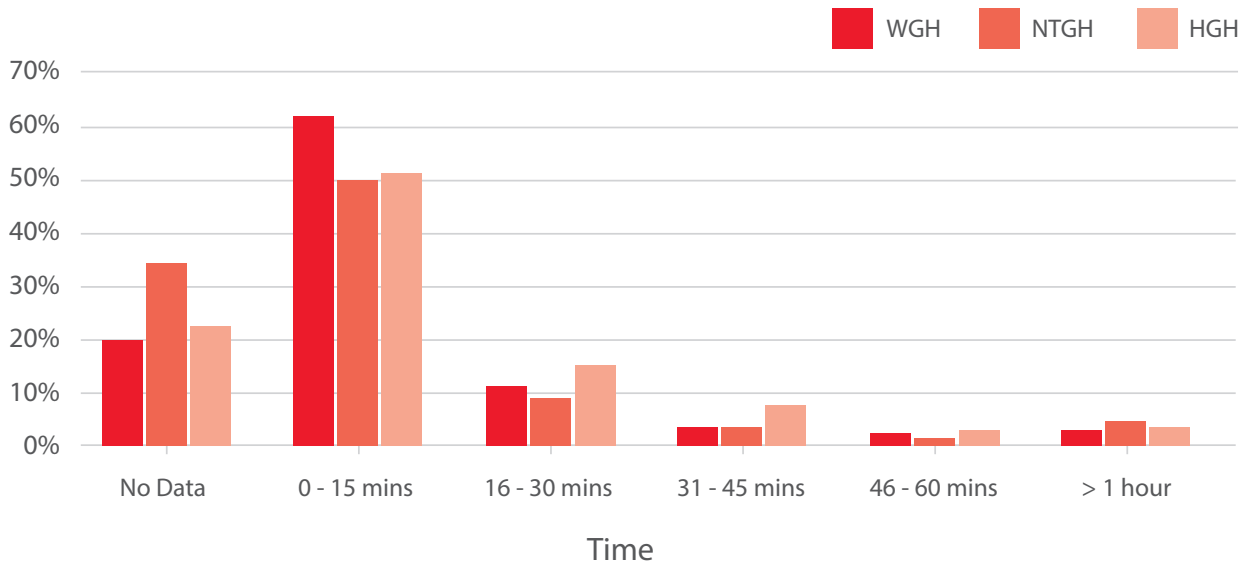
Reasons for delay consenting (where recorded)

WGH
- 2.5% (11/435) patients needed an enema, delaying the consenting process
- 1.4% (6/435) the endoscopist was late arriving onto the unit
- 1.4% (6/435) delays in consenting were due to procedure delays
- 0.7% (3/435) respectively for the following reasons: endoscopist talking to another patient, patient in toilet, no staff available, patient awaiting INR (International Normalised Ratio) result

NTGH
- 1.0% (4/415) delays in consenting were due to procedure delays
- 0.5% (2/415) patients were not ready
- 0.5% (2/415) the endoscopist was late arriving onto the unit
- 1.0% (4/415) other reasons include patient in toilet, patient awaiting INR result, equipment/washer delay, patient needed enema

HGH
- 6.0% (9/151) delays in consenting were due to procedure delays
- 2.0% (3/151) patients were not ready
- 2.0% (3/151) the endoscopist was late arriving onto the unit

Site	No data	0 - 15 mins	16 - 30 mins	31 - 45 mins	46 - 60 mins	>1hr	Range
WGH	20%	62%	11%	3%	2%	2%	00:00 / 02:25
NTGH	33%	49%	9%	3%	0%	5%	00:00 / 01:20
HGH	23%	50%	15%	7%	2%	3%	00:00 / 01:20



WGH

- 7.1% (31/435) were caused by equipment/washer delays
- 6.4% (28/435) patients were not ready for various reasons
  - 2.5% (11/435) patients were not consented, 0.9% (4/435) were late arriving 1.1% (5/435) patients needed an enema
- 3.4% (15/435) patients were delayed by the previous list finishing late
- 2.1% (9/435) delays were as a result of the endoscopist not being available, of which 1.4% (6/435) the endoscopist was consenting/talking with another patient, 0.7% (3/435) endoscopist was late arriving
- 1.8% (8/435) delays were due to staff not being available
- 1.6% (7/435) were caused by previous procedure/list delays
- 0.5% (2/435) patients were waiting for INR results
- 0.7% (3/435) other reasons include waiting for notes, patient required a hoist not on unit, needed to change rooms

NTGH

- 4.1% (17/415) patients were not ready for various reasons
  - 0.7% (3/415) were not consented, 0.5% (2/415) patient needed an enema, 0.2% (1/415) patient needed to see the consultant before procedure
- 3.9% (16/415) patients were delayed by equipment/washer delays
- 2.9% (12/415) delays were as a result of the endoscopist not being available
  - 0.7% (3/415) endoscopist was on the ward, 0.7% (3/415) endoscopist was consenting/talking with another patient
  - 0.7% (3/415) endoscopist was using the computer, 0.5% (2/415) endoscopist was late arriving on unit, 0.5% (2/415) endoscopist was on the phone
- 1.7% (7/415) patients were delayed by previous lists finishing late
- 1.4% (6/415) recorded instances where delays caused by patients who did not attend

HGH

- 10.6% (16/151) patients were not ready for various reasons
  - 4.6% (7/151) patients were not consented, 1.3% (2/151) patients awaiting INR, 0.7% (1/151) patient needed an enema
- 8.6% (13/151) delays were as a result of the endoscopist not being available
  - 3.3% (5/151) endoscopist was late arriving on unit, 3.3% (5/415) endoscopist was consenting/talking with another patient
  - 1.3% (2/151) endoscopist was on the computer, 0.7% (1/151) endoscopist was on the phone

Length of time patient in treatment room

Gastro

Site	No Data	0 - 15 mins	16 - 30 mins	31 - 45 min	46 - 60 mins	>1hr	Range	n =
WGH	2%	71%	27%	0%	1%	0%	00:03 - 00:48	173
NTGH	5%	62%	31%	2%	0%	0%	00:05 - 00:39	201
HGH	3%	79%	18%	0%	0%	0%	00:04 - 00:27	62

Flexi

Site	No Data	0 - 15 mins	16 - 30 mins	31 - 45 min	46 - 60 mins	>1hr	Range	n =
WGH	6%	84%	9%	1%	0%	0%	00:03 - 00:35	159
NTGH	3%	47%	42%	5%	0%	2%	00:07 - 01:06	59
HGH	6%	69%	22%	3%	0%	0%	00:05 - 00:39	36

Colon - excludes BCSP

Site	No Data	0 - 15 mins	16 - 30 mins	31 - 45 min	46 - 60 mins	>1hr	Range	n =
WGH	2%	18%	48%	29%	2%	2%	00:11 - 01:39	65
NTGH	0%	2%	32%	45%	15%	6%	00:11 - 01:30	110
HGH	7%	5%	59%	22%	7%	0%	00:12 - 00:54	41

Gastro and colon

Site	No Data	0 - 15 mins	16 - 30 mins	31 - 45 min	46 - 60 mins	>1hr	Range	n =
WGH	0%	0%	23%	38%	31%	8%	00:21 - 01:40	26
NTGH	0%	0%	7%	52%	31%	10%	00:16 - 01:25	29
HGH	10%	0%	30%	40%	20%	0%	00:26 - 00:52	10

Gastro and flexi

Site	No Data	0 - 15 mins	16 - 30 mins	31 - 45 min	46 - 60 mins	>1hr	Range	n =
NTGH	20%	0%	40%	40%	0%	0%	00:26 - 00:45	5

Reasons for delays in treatment room

WGH

Procedures were delayed due to the following reasons.

- 2.3% (10/435) difficult/complex procedures
- 1.4% (6/435) endoscopy equipment failure
- 0.9% (4/435) equipment/washer delay
- 0.5% (2/435) endoscopist being on the ward
- 0.5% (2/435) endoscopist interrupted by trainee

NTGH

Procedures were delayed due to the following reasons.

- 2.2% (9/415) difficult/complex procedures
- 1.2% (5/415) difficult cannulation
- 0.5% (2/415) endoscopist not being available (on computer and talking)
- 0.5% (2/415) equipment delays

HGH

Procedures were delayed due to the following reasons.

- 2.6% (4/151) endoscopist not being available (on computer, talking, on phone, late arriving on unit)
- 0.7% (1/151) procedure was delayed due to difficult procedure

Impact

Having data allowed difficult conversations to take place. The transparency provided a legitimate basis for direct questioning, that would otherwise have been seen as too 'challenging' between staff. As the team had collected the data themselves there was an unwritten 'accepted validation' of the findings, and so instead of defending why the process was not working with optimum efficiency, the team were ready to resolve issues and make agreements on how to make the process better. 'Data' takes the emotion out of difficult decision making!

Make sure you have good quality data

Data quality is critical to accurate reporting and this may require a high level of attention within this module. Missing data can significantly affect your recorded start times and run charts.

Make sure all of the members in your team realise the importance of the data that they collect.

It helps to share some anonymous examples of the impact of poor data collection with your team. The quality of start time data can be particularly poor due to the reliance on nursing staff entering information during a busy step in the patient pathway. You may need to work with the team to feedback and raise awareness of the importance of the accuracy of data in reflecting session start up.

> *"Teams are often surprised to discover how much room time is 'lost' during change-over of patients and when starting lists - data collections (start/stop audits) are a vital tool for understanding this wasted capacity."*

Susie Peachey, National Improvement Lead, NHS Improving Quality

Gather feedback from staff

In order to fully understand your current way of working you will need to obtain good quality feedback from the full multidisciplinary team. You can start this through group sessions and one to one discussions.

It can be difficult to get teams together in busy endoscopy departments so you may need to be creative and explore other ways of getting feedback!

Remember to record the feedback.

TIP: Flip charts are useful as they can be put up in the department and comments can be added by teams who were not able to participate in the session. This can be a good way of gaining the views of a broad group of staff, particularly surgeons and gastroenterologists who often find it difficult to get together to attend group sessions.

Example: areas to explore with your teams

What does Session Start Up and Patient Change-over actually mean to your team?
What is the general feeling about Session Start Up and Patient Change-over within your department?
What is your understanding of the session time definitions?
Discuss as a team the importance of a prompt and efficient start to the session
What is the potential cost and impact of an endoscopy room standing empty, and the implications of an over-run due to a late start?
As a team identify the impact that delays and potential cancellations can have on patients, staff and the rest of the organisation
From their experience, what issues affect Session Start Up and Patient Change-over on a day by day basis? List these issues as well as their impact.
Do staff feel part of a team that has a shared goal and supports each other to achieve what is required? How are problems escalated and managed? Are the team active in finding solutions for themselves?
For example, if there is no porter available to collect inpatients do they actively find a solution or simply wait for a porter to become available?
Do teams have any kind of performance data that is currently fed back to them? If so, what is it and what do they do with it?
What are the processes and tasks that need to be completed during the set-up period? Which processes are carried out to a defined standard and which are open to individual routine? List the types of processes and tasks that fall within them.

►► **TIP: It is useful to run small breakout groups around a flipchart to discuss and record the different set-up processes e.g. room set-up. Gather consensus on this and make decisions on content and priorities. Dot voting (see the Toolkit) may be of use during this activity.**

Gather wider feedback

It is not always possible to get together as a group so you may need to look at alternative ways to gain feedback. Surveys can be a good way to capture issues and perceptions.

Below is an example of a letter that was sent out by a test site to endoscopists. The purpose of the letter was to introduce the module and gain their perceptions and feedback on the issues that affect their ability to start sessions on time. The letter also clearly defines the session times, as well as the intention to start lists on time. This was successful in gaining useful feedback from busy senior clinicians and can be locally adjusted for your own use.

Dear .....

You will be aware that we are currently implementing The Productive Endoscopy Unit programme. One of the modules that we are currently working on is 'Session Start Up and Patient Change-over'. This module will focus on ensuring that all lists are able to start on time, and continue to time, in a safe and reliable way. Our current local definition for the start of a session is commencement at 09:00hrs for an AM list and 14:00hrs for a PM list.

We are currently late in starting a significant number of lists for a variety of reasons - some internal to the unit and others that extend beyond the control of the department. We recognise that, as a clinician, your time is precious and that it is important for you to start on time as well as finish on time. The data shows that a significant number of late finishes can be prevented by starting on time.

Our focus within the Session Start Up and Patient Change-over module will be to:

- *Ensure that everyone is aware of local session time definitions and the expectation that all sessions should start promptly, unless by previous arrangement*
- *Measure start times daily and discuss with the team to help understand what prevented the session starting on time*
- *Code all late starts to identify and quantify the main causes*
- *Identify the critical barriers to starting on time*
- *Work as a team to address these*
- *Feedback to the Trust on any issues that are beyond the control of the endoscopy unit in order to gain support and action*
- *Identify roles and responsibilities within the team*
- *Ensure sufficient resources and structure to the planning and preparation of lists*
- *Introduce pre-session briefings as part of the Team Working module.*

It would be very helpful if you would take a few minutes to reflect on your own sessions and to provide a brief outline of what factors you feel may be preventing you from being able to start scoping on time. It will also be very helpful if you would include constructive suggestions.

A simple form has been attached that can either be filled in electronically and sent back via email, or printed off and posted back to the programme lead (details at the bottom of the form).

It is important to us that this work takes into account the opinions and feedback of all colleagues within the teams. Our aim is to work collaboratively, to provide a framework that allows professionals to work in an organised and structured environment, which will enable the delivery of quality care to patients. This is not only focused on start times and productivity, so please do join us in this endeavour. Please also feel free to discuss your thoughts with either the module lead or ……

Yours
The Productive Endoscopy Team

Example: form to accompany letter

Session Start Up and Patient Change-over module
– barriers to starting sessions on time (clinicians)

Issues affecting ability to start lists on time	Details	Ideas/proposals
Endoscopy related issues		
Hospital related, but external to endoscopy		
Personal i.e. other commitments, contractual issues etc.		
Other		

Record processes and activities through photographs and filming

It may be helpful to take photographs and record videos (see the Toolkit) of start up and change-over processes. For example, you may wish to follow and record the processes involved in endoscopy room set up:

- Nursing team
- Medical team
- Recovery area.

Videos can be particularly helpful if there appears to be variation in practice. They can then be reviewed with the team when implementing standard operating procedures.

When asking two healthcare assistants how long it takes to prepare similar rooms in the morning, 1 replied 30 minutes and another 45 minutes. What do these 2 professionals do that is different?

It can be difficult to plan for high quality and cost efficient care when there is significant variance in practice.

This may be an example of where the use of video capture or activity follows using Process Sequence Charts (see the Toolkit) can be useful in understanding the variation.

Identify waste

Review the photographs/video with members of the team; ask them to highlight key tasks and responsibilities that are crucial to a safe and reliable set up. What is the most logical way to accomplish the task?

Also ask them to note any issues, delays or opportunities to reduce waste that they can identify.

The seven wastes

1. Defects and rework – due to faulty processes, repeating processes because correct information was not provided in the first place
2. Motion – unnecessary people movement, travel, walking and searching, equipment not within reach or easily accessible
3. Overproduction – producing more than what is required 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 e.g. for people, equipment or information
6. Inventory – too much stock, work in progress or patients waiting in a queue
7. Overprocessing – performing unnecessary steps that do not add value

Understand how long individual start up and change-over activities take

Understand how long each process and task takes – do this by using timing processes (see the Toolkit):

- Capture the time taken to carry out a process on a number of occasions
- Compare the times to understand variation in practice and time taken
- Bear in mind that the same process may vary based on the speciality, the case mix or the number of patients on the list.

Where there is significant variation, issues or differences in perception amongst staff about a process, analyse it further by completing a detailed activity follow (see the Toolkit - Process Sequence Charts).

- Review the activity follows and see how much 'waste' can be identified e.g. how many interruptions there are, or how much time was required to search for stock and equipment? Could this be reduced?
- Can you use the ECSS principles to reduce wastes and process steps:
  - **E**liminate
  - **C**ombine
  - **S**implify
  - Re-**S**equence.

►► **TIP: You may find that some processes within Session Start Up and Patient Change-over do not have an impact on the start time. However, they can be improved and standardised to provide greater reliability, a reduction in errors and a reduction in frustration for patients and staff**

Gather information about issues, problems and reasons for delay

With your team identify recurring issues, problems or delays that prevent staff from doing their job efficiently and effectively. This will provide you with a baseline and help you identify the priorities for improvements. This can be re-audited after changes have been implemented to allow you to demonstrate any improvements.

- Collect glitches (issues that cause delays and problems) for a period of time, initially over one month
- Collect them on a daily basis, possibly as part of a debrief. You can present this information in a Pareto chart to identify the most common causes. See glitch count in the Toolkit for more information on using Pareto charts
- Collect reasons for late starts
- Review incident data to see if there are any trends relating to session start up

Some issues that may cause delays or problems can include:
Lack of pre-list review
'It's not my job' attitudes
Late starts/late finishes
Endoscopists arriving late
Endoscopists travelling between sites creating delays to lists starting on time
Nursing staff unable to consent requiring endoscopists to leave the room to do this
Room not ready
Shortage of staff
Admin not ready
Nurses not ready
Doctors not ready
Patients not arrived
No medical records
Duties not clearly assigned – 'not my job'
Coordination and communication of the start time to all participants
Individual rooms running in isolation – no pooling incurs delays waiting for specific patients to specific operator
Portering delays
Variation of turnaround times

Map your current state

Gathering all of the data and information that you have collected together so far will provide you with a well-rounded view of your current session start up and patient change-over process. By analysing all this information together as a team, you will begin to identify:

- Areas of good practice and successes that can be shared and spread throughout your service
- Issues and barriers that are preventing the team from consistently achieving a good session start up
- Initial ideas for changes that could result in an improvement.

Putting effort into gathering information at this point will result in a richer perspective on the challenges facing the whole team during this very busy period of the day. This will provide you with the information you and your team require to set about creating your desired future state. It will also help you to understand why some sessions have no difficulty in starting on time regularly, while others are nearly always late – or how some areas tend to have problems that could have been anticipated and dealt with prior to the start of the list.

It is so easy for us as teams and individuals to feel threatened by improvement work and to feel that this diagnostic stage is all about being watched and questioned by others, whose aim is to find fault with what we are doing. It is crucial to point out to our teams that by getting involved, we are putting ourselves, as a department, in control. The diagnostic data collection helps us to recognise really good practice in our areas and also provides us with the opportunity to improve on aspects that are not working so well for us as a team - for whatever reason. It is not about finding fault with individuals.

Harriet Watson, Consultant Nurse, Guys and St.Thomas' NHS Foundation Trust, London

As described earlier there are several broad concurrent processes and pathways that make up the preparation for the start up and patient change-over of endoscopy sessions:

- Patient admission and preparation
- Pre-procedure review of patients
- Room set up.

Get your teams together

To map your current state:

- Get everybody involved in session start up together
- If this is not possible, hold a number of small group sessions for each of the different processes
- Include representatives from the relevant areas involved in each process.

Map out these processes in parallel to understand the timelines and any key timings that run across these processes using process or value stream mapping (see the Toolkit). It is important to include all the results of the analysis, timings and issues on your map.

Review ideas that have worked elsewhere

Throughout this module you will work to develop your own ideas to achieve a safe, reliable and efficient session start up that is specific to your teams and your organisation. Reviewing examples of what has worked well in other sites will help prompt ideas about what could work in your organisation.

Example four: Spaghetti mapping the endoscopy process
– Royal Liverpool and Broadgreen University Hospitals NHS Trust

Problem

Staff felt that there were session start up and change-over issues affecting patient outcomes and experience, such as patients:

- Waiting in the reception area
- Waiting in an interview room
- Waiting to be discharged
- Waiting for carers/escorts
- Being cancelled from lists.

Staff felt that there were session start up and changeover issues affecting staff throughout their day to day work, such as staff:

- Searching for patients
- Searching for patient case notes
- Searching for other members of staff
- Searching for equipment
- Being unclear on patient discharge status.

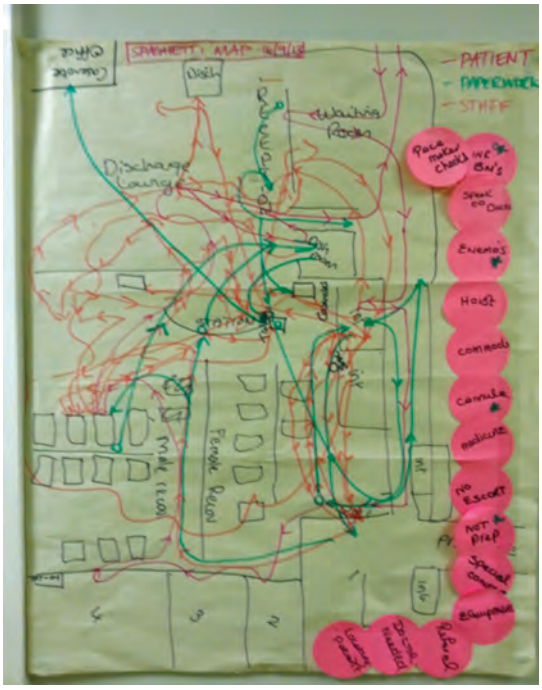
As outlined above, staff felt that they knew how they were doing with session start up and change-overs, but this was not evidenced with data or visualised for all to see.

What we did

- Staff were introduced to Lean principles with the support of a flow simulation exercise
- The spaghetti mapping tool was explained in further detail
- A group of staff walked the end to end patient pathway within the endoscopy department and gathered observations
- Using a department layout map, staff mapped three flows:
  1. Flow of a patient
  2. Flow of patient paperwork (referral, case notes, report)
  3. Flow of members of staff supporting a patient through their endoscopy journey
- Staff supplemented the spaghetti map with their own thoughts, niggles, frustrations and improvement ideas
- Staff could then identify where there was evidence of good flow and where there were bottlenecks and duplication
- With Lean principles in mind (waste identification and reduction, flow, pull), a future state spaghetti map was created

Flow simulation

Current state spaghetti map for colonoscopy patient journey



Future state spaghetti map for colonoscopy patient journey

Impact

- The current state spaghetti diagram exposed some inefficient layouts and identified some excessive distances travelled between steps, which in turn were causing delays to session start up and change-overs, as well as delays to procedures within sessions
- Combined with a detailed data collection plan, the activity enabled a detailed understanding of flows, bottlenecks and duplication including the following
  1. Average distance travelled by patient
  2. Average waiting time by patient prior to procedure
  3. Average waiting time by patient post procedure
  4. Average distance travelled by staff (for one patient)
  5. Percentage sessions starting on time
  6. Percentage sessions finishing on time
  7. Reasons why sessions did not start or finish on time
  8. Number of patient handovers (receptionist – nurse – consultant – nurse – carer/escort/discharge)
- Examples of waste identified:
  1. Transport – excessive transportation of patient notes/reports
  2. Motion – excessive motion of staff to move patient throughout the department
  3. Motion – searching by staff for patient and other members of staff
  4. Motion – searching for stationery items and equipment
  5. Waiting time for patient and staff – delays for INR BM's, pacemaker checks, incomplete enemas/preparation, cannulation staff, no patient escort
  6. Defects – patients not attending (DNAs)

Results

- Staff discussion and identification of process steps that they could potentially:
  - Eliminate – were any steps pure waste that could be eliminated?
  - Simplify – were any steps overcomplicated or complex and could be simplified?
  - Combine – could any steps be combined to flow better?
  - (Re) Sequence – could any steps be (re)sequenced to flow better?
- Testing of improvement ideas and outcomes
  - Patient checklist on arrival to confirm preparation completion
  - Case notes with reception
  - Nurse meet and greet patient within 15 minutes of arrival
  - Patient oral preparation
  - Cannulation role
  - Point of care testing training for staff who require it
  - Coordinator allocation of roles for the day, e.g. named nurse per two interview rooms, dedicated discharge nurse
  - Standardised working, SBAR (Situation, Background, Assessment, Recommendation) for handover and Standard Operating Procedures for discharge
  - Staff training session on discharge
  - Packs of gowns, shorts, blankets etc. to be available at point of use in interview rooms
  - Staff room relocation to disused (liver) room
  - Use of staff room for equipment to free up space in recovery areas
- Planned measurement of improvement ideas
  - Percentage improvement in sessions starting on time
  - Percentage improvement in sessions finishing on time
  - Reduction in number of patient handovers
  - Percentage improvement in patient waiting time
  - Percentage improvement in patient DNAs
  - Percentage reduction in distance travelled by staff
  - Time savings for staff

Plan – milestone checklist

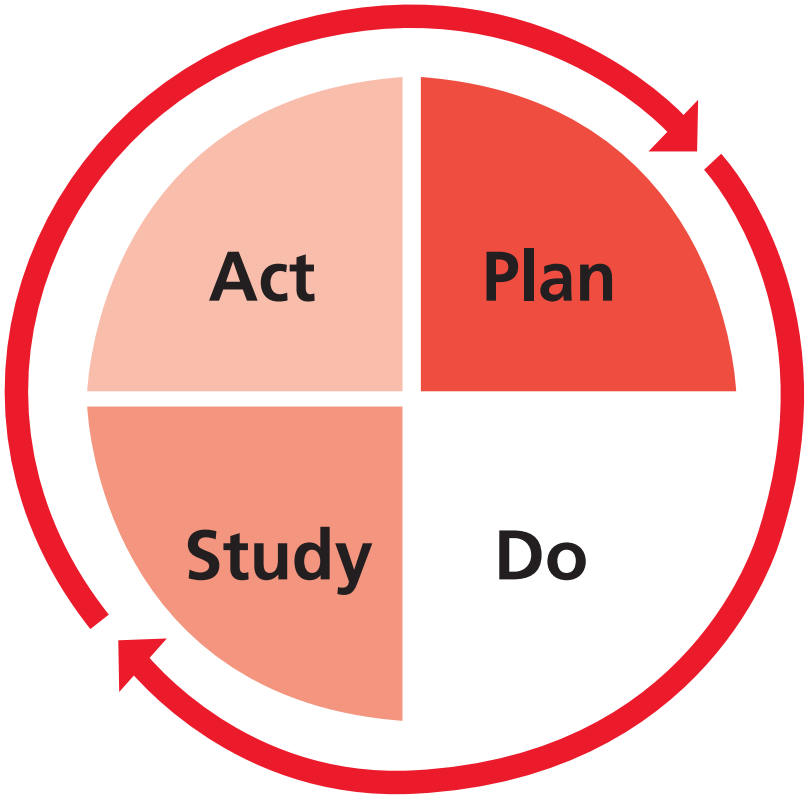
Move on to **Do** only if you have completed **all** of the items on this checklist.

Checklist	Completed?
Ensured strong and visible leadership	
Created the team	
Communicated, engaged and raised awareness	
Gathered and reviewed relevant data	
Made sure you have good quality data	
Gained feedback from the team	
Recorded processes using photos and videos	
Understood how long individual start up 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

By now you will have reviewed all the relevant information, mapped your current state, and gained a full understanding of the issues and problems you have identified around the session start up process.

Now it is time to think about exactly what you want to change and how to make the improvements happen. Remember that implementation works best when staff are involved and are encouraged to develop their own solutions. This will result in a shared goal that engages all members of the team.

Follow the steps for designing your new process using future state mapping.

Review your module aims

This is a good point to review your initial module aims, to make sure you remain focussed on achieving your goal.

It maybe that having gained a deep understanding of your current state, you may wish to revise your aims. If you do, remember to communicate this with the wider team and your reasons why.

Map the future state

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

To map your future state:

- Get everybody involved in Session Start Up and Patient Change-over together – if this is not possible hold a number of small group sessions for each of Session Start Up and Patient Change-over processes
- Invite representatives from all the areas involved in each process
- Give plenty of notice 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
- 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
- Action planning and dates for future meetings.

Discuss how the various teams might work more effectively together in order to complete all of the tasks needed to get sessions up and running.

Map your future state together as a team. Agree the first step, and walk through the value adding activities of the process, and create your future state map. There should be significantly less steps and issues than your current state map.

Are there key timings that are common across the teams during this set up period? How might these be used to provide some structure to the start up process?

Use process or value stream mapping, (see the Toolkit) to support you with this event.

TIP: Involving staff from all different areas will help to identify issues that endoscopy staff may be unaware of e.g. ward staff get patients ready in the order of the list they have, if the order of the list is changed and not communicated to the ward, the wrong patient will be prepared first and result in a delay.

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.

Other useful tools that can be found in the Toolkit to support this session include:

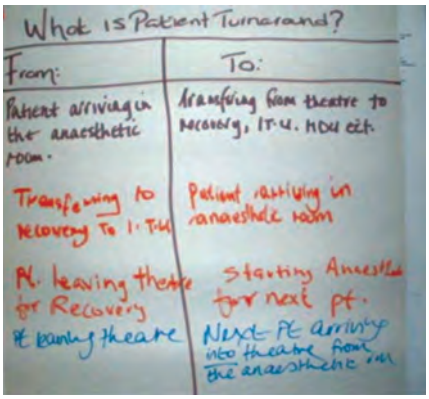
- Dot voting
- Module action planner
- 5 why analysis.

TIP: The support and active involvement of clinicians is crucial, but busy consultants may be reluctant to engage with improvement work unless they understand what the potential advantages are.

Agree and raise awareness of key definitions

All members of your team need to be clear about exactly what the definitions of start and finish times are, and what the target room turnaround time is. The JAG states that it should be possible after an uncomplicated procedure to turn a room round in 6 minutes.[1]

You may want to gather views from the wider team on what their definition of start and patient change-over times are. Strategically place a flipchart asking the questions to get an overview from your team.



The definitions may vary between organisations, as many staff move between organisations during their careers; confusion can be more common than expected. Setting the benchmark also helps to set expectations of the team for a prompt start and standard change-over.

Once agreed, communicate the definitions widely across all of your teams.

You may also want to develop a Standard Operating Procedure for patient change-over, detailing actions required, when these should take place and by whom. It may also be helpful to include the reasons why these actions should take place in the specified order, for example, to ensure the procedure room is ready for the next case.

Mapping the future state timeline for several concurrent processes

It is useful to map backwards from a defined point such as the locally agreed start time. This will enable you to identify the key points and times where there are interdependencies between the concurrent processes being carried out by different staff.

This will also clarify the timeframes that individuals actually have available to carry out their pre session processes. Teams can then further examine their own individual processes within the context of time available and the tasks that need to be carried out.

Each organisation will have identified individual issues and challenges that will define the direction and priorities for improvement.

[1] How many 'points' should there be on an endoscopy list?-May 2012- www.thejag.org.uk

Reframing issues into enablers

Review the issues and barriers that are preventing you from achieving the aims of the module. Do not forget to include the outputs from your original visioning workshop where you raised issues, as well as your vision for a perfect list.

A simple group exercise can be to 'reframe' any negative feedback about difficulties in achieving an effective session start up into positive statements, based around key themes that can be identified as areas for improvement. The aim of this is to get people to start thinking positively and about solutions rather than problems.

This exercise also helps to clarify some of the issues that may fall outside the scope of this particular module, or even the programme.

Issues and barriers	Enablers
Lack of purpose and motivation to start on time	A team that has a common purpose to achieve a safe and reliable set up and to start on time
Poorly scheduled and planned lists Constant list order changes	A well planned list that does not require any changes in order
Poorly prepared patients – not fit for procedure, lack of appropriate investigations and preparation	Patients that are medically fit for the procedure; prepared, consented, documentation available – and ready to go for procedure
Staffing problems – numbers and skills	The endoscopy team - appropriate skill mix and numbers – ready to go
Medical staff late or not scheduled for list	Endoscopists with required skills – booked and available
Poor team work	Collaborative multidisciplinary team – solution focused and 'can do' attitude
Lack of effective communication	Communication: briefing, debriefing, huddles, interdepartmental communications
Poor coordination and management drive	A proactive and responsive endoscopy management team
Problems with availability and function of equipment	Equipment that is available and functioning correctly
Bed capacity problems – wards	Bed availability – correct speciality, correct level of care and available on time
Morning lists over-running, knock-on effect on lunch breaks and start of afternoon lists	Afternoon lists – morning session finished on time and team have had their break
Inpatient transport to endoscopy causing delays	Transport to the unit – timely collection, method planned e.g. trolley, walk, chair, escort available

Agree and prioritise potential solutions

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.

Identify issues that are beyond the scope of this module

Some of the issues and barriers identified may be beyond the scope of the module or the influence of endoscopy. However, these issues still need to be taken forward to the appropriate area within your organisation, with a clear indication of the impact that the issue is having on your patients, or your endoscopy service.

Where possible provide the person who will be taking this forward with clear evidence of the problem, backed up with some form of data.

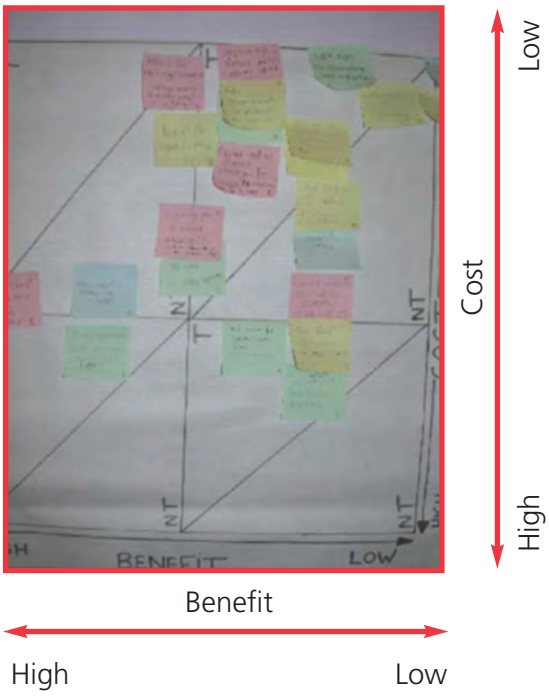
- Issues can be taken forward by the programme leader. There may be occasions where this needs to be escalated to the executive leader when other strategies have failed to find effective solutions
- Some key potential improvements will fall within the scope of other modules within The Productive Endoscopy Unit such as Team Working, Scheduling, Pre-assessment and Patient Preparation, Consumables and Equipment or Operational Status at a Glance. 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. This is an excellent opportunity to build a collaborative working relationship with another Productive programme

Carry out a cost/benefit analysis

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

To do this, carry out a cost/benefit analysis (see the Toolkit). This can help you to identify which ideas to implement and in what order, based on the cost it will take to implement and the potential benefit that may be gained. Low cost solutions with a high benefit provide a 'quick win', this is good to capture your staff'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

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Create an implementation plan

Once you have agreed and prioritised the changes that you want to test, develop an implementation plan. Use the module action planner (see the Toolkit) to organise, share and communicate the actions. The planner can then be used to monitor progress of your PDSA cycles.

Test the changes

Now that a future state and implementation plan has been agreed, the next stage is to test the potential solutions.

It is likely that even the best ideas will require you to go through several Plan, Do, Study, Act cycles, to enable you to modify and refine your ideas, before your team and organisation are happy to implement solutions across the endoscopy service.

Before you begin testing ensure that:

- The leadership and ownership of each change is clearly established
- Everyone involved understands the purpose of the proposed changes
- You communicate the changes that are being tested to all stakeholders, including those who are not directly involved in the tests
- You have identified the data you will need to collect to see if the change is an improvement
- The data will be accurately and effectively collected
- You have an effective method to analyse and review your data
- Staff are encouraged to comment and make suggestions about the changes
- You plan to identify and help solve any problems that may occur during implementation
- You set a specific date to start
- You set a defined study period – this should be long enough to demonstrate improvements or problems, but short enough to evaluate and make further changes if required
- You set dates for future meetings to assess the effects of the changes and refine the approach based on feedback.

Monitor progress

At the beginning of this module, as part of the second question, 'How will we know that a change is an improvement?', one of the first things you did was to identify and agree your measures for session start up.

For each measure you would have completed a measures checklist to confirm:

- The measure definition
- How and who will collect the information
- How and who will analyse and present the information
- When and who will review the information, this could be at the steering group, project team or department team meetings.

(The measures checklist is available in the Knowing How We Are Doing module.)

During the Plan phase you collected a considerable amount of information to help you understand the current Session Start Up and Patient Change-over process; this will have provided you with a baseline against which you can now monitor your progress as you begin to test your changes.

As you test your changes you will need to collect, analyse and review your data for each measure as described in Knowing How We Are Doing, and as you outlined in your measures checklist.

It is likely that you will have to revisit some of your measures as you begin to collect, analyse and review your information and perhaps modify your measures, or the way you measure, to make sure that you are getting the information you need in a timely and manageable way. Consider the following questions:

- Is the data easy to collect?
- Are the measures providing you with useful information?
- Can the teams understand how the data is presented?
- Is there other information you could collect?

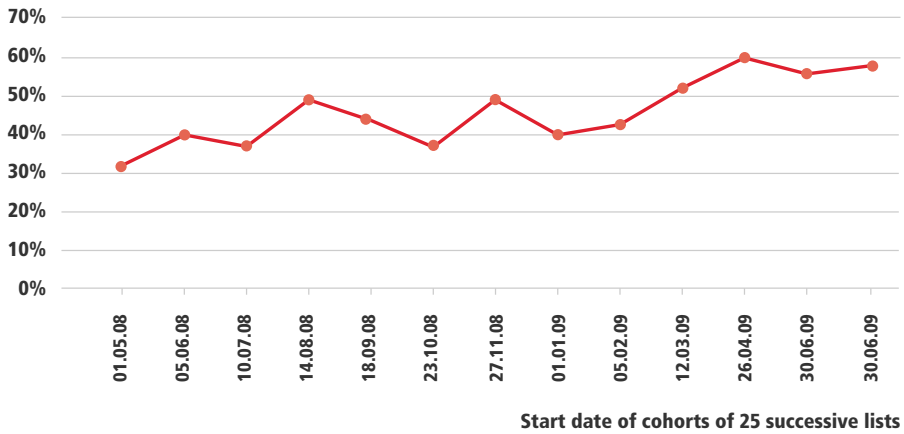
Analysing and presenting your data

There are many ways that you can analyse and present your data.

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, the run chart below shows the percentage of lists that start on time is increasing over time. You could also plot the number of minutes that a session starts late or early day by day, or aim to increase the percentage of patient change-overs that are less than, or equal to, the 6 minute standard.

2013 Percentage lists starting on time (from 1 May)



A more advanced way to present your information is through using Statistical Process Control (SPC) charts. For more information and a tool to create SPC charts see the Toolkit that accompanies The Productive Endoscopy Unit.

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

Review the information

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.

- 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
- Monitor initial data for signs of improvement – share any evidence with the team to encourage them to persevere

What is a progress review meeting?

QUESTION	DESCRIPTION
What is it?	• A routine meeting to: – Discuss progress against goals – Plan actions against issues
Why do it?	• Everyone has a stake in how endoscopy performs • Promotes improved and consistent communication between endoscopy staff • Promotes cohesive team-work to achieve endoscopy 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 deadlines • Confirm next scheduled meeting

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

Questions to ask

By reviewing the measures you will learn about how your endoscopy team is performing. You will analyse the information and develop conclusions about whether what you are measuring is right. 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.

QUESTION	EXAMPLE
What outcomes did we expect (our aim)?	Example: • Do start lists at planned start time every morning • To standardise the patient change-over process to six minutes or less
Do the results indicate we are achieving those outcomes?	Example: • Actual start times match the planned start time • All staff are following the standard procedure
Are we confident we have made the correct conclusion?	Example: • If start times are delayed, do we know the real reasons why? • If change-over times are still variable, why is that?
Do the results indicate that we should be doing something else?	Example: • If the start times are consistently delayed for the same reason, focus on that area in your next round of improvement cycles • If change-over times are still variable, is the standard work really making any difference - concentrate on other improvement initiatives in your next PDSA cycle
Are the measures useful?	Example: • You may also need to ask whether we have measured for long enough to draw conclusions
Would some other measures tell us more?	Example: • Time a particular start up process or change-over process (Process Sequence Charts – see the Toolkit)

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

Support the 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.

Managing the challenges of implementation

Depending on the nature and scope of the solutions that you are testing, you may come up against challenges when implementing the change. For example:
- Resistance to the change
- Lack of resources – staff being released to carry out the changes, or funding for equipment or structural changes required.

If you come across any issues share them with your programme leader or service improvement leader, who will be able to work with you to find strategies to overcome them.

Do – milestone checklist

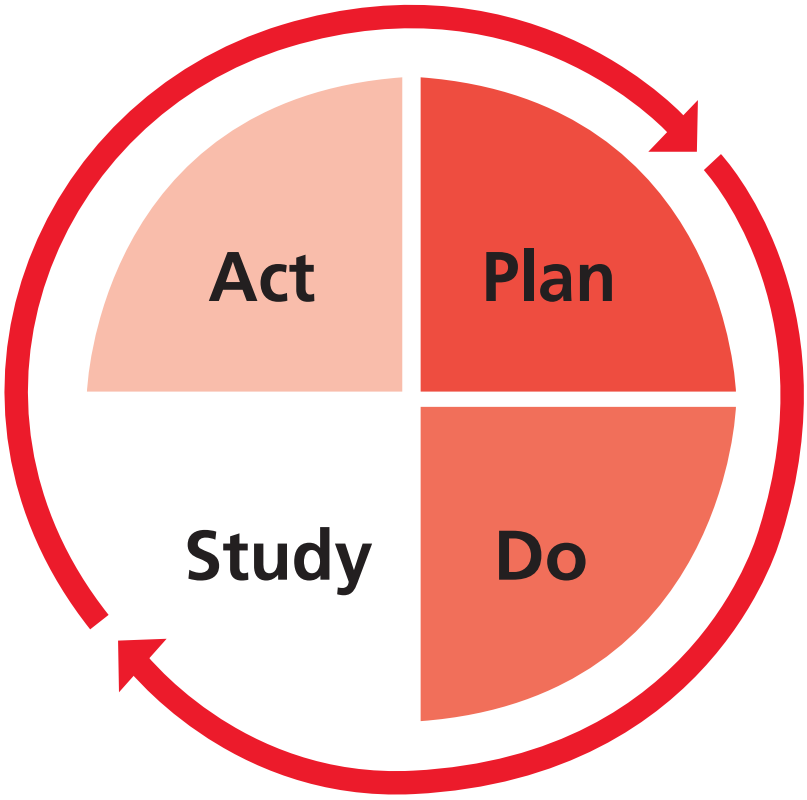
Move on to **Study** only if you have completed **all** of the items on this checklist.

Checklist	Completed?
Reviewed your module aims	
Mapped future state	
Agreed and raised awareness of key definitions	
Agreed and prioritised potential solutions	
Carried out a cost/benefit analysis	
Created an implementation plan	
Tested the changes	
Monitored the progress of the change	
Supported the team in their new way of working	

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 phase, your team will need to reflect on how successful the changes they have implemented have been, and whether those changes are in fact improvements. This should 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?

Throughout the test phase you will have been reviewing your changes regularly with your team at progress review meetings. The Study phase marks the completion of your defined test of change, it is at this point you will need to review the impact of the change through gathering the relevant information.

Collect feedback from your teams

What impact have the changes had on the staff groups involved – nursing teams, surgeons, endoscopists, gastroenterologists, administration staff and managers?
- Are the changes having a positive or negative impact on them? Pay particular attention to any negative feedback
- Do they have suggestions on how the process can be improved further?
- Collect stories and quotes to provide the qualitative perspective of the change

There are many ways to collect qualitative feedback from your teams. 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
- One to one discussions
- Flip charts in communal areas inviting comments
- Questionnaires which can provide both qualitative and quantitative information (see The Toolkit that accompanies these modules)

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

Collect data

As you have tested your changes you should have continued to collect, analyse and review your key measures, to show the impact they have had from a quantitative perspective. You will have been doing this at your regular progress review sessions.

Assess the impact the changes have had on your key measures, for example has there been:
- An improvement in start time – overall, by room, by session?
- An improvement in over-runs?
- A reduction in glitches?
- A reduction in change-over time?

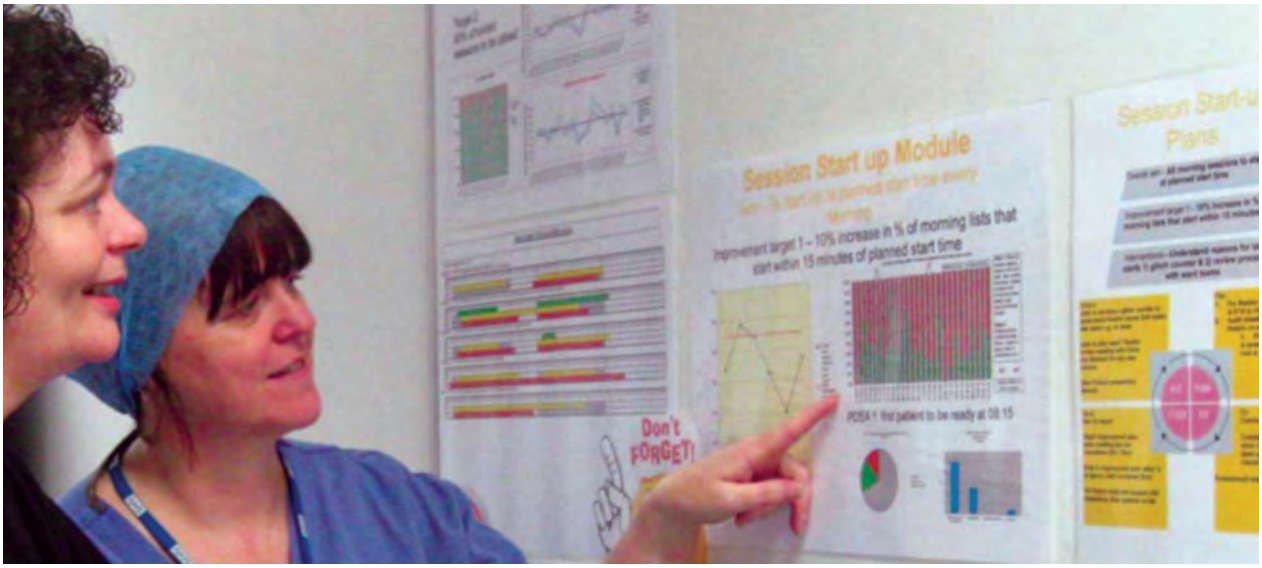
Assessing the impact on your key measures

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 have achieved that aim?
- What conclusions can you draw?
- Is the team confident they have made the correct conclusions?
- What are the views of the team and their perceptions of the change?
- What would they like to see changed or improved?
- 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 endoscopy department. Show progress on key measures, include quotes, comments and stories
- Include the headline results in your Productive Endoscopy newsletter to share progress across the organisation
- Discuss results and progress in your weekly team meetings, audit mornings, and brief and debrief or huddle sessions
- Ensure all staff are informed



Review ideas that have worked elsewhere

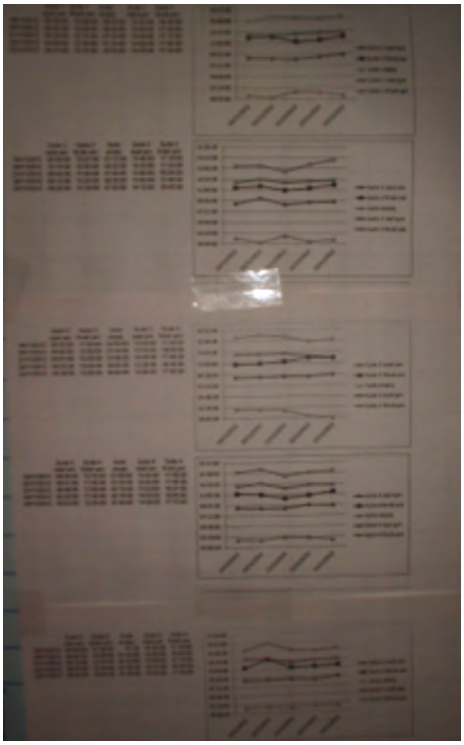
Example five: Optimising staff skills to maintain flow
- Portsmouth Hospitals NHS Trust

Problem
- Although the off duty was well managed, ensuring an adequate compliment of staff to cover the department, there were still problems covering certain duties
- The start/stop audit showed that lists were sometimes not starting on time
- Exploring the reasons behind the late starts indicated that, often, this was because the nurse admitting patients could either not cannulate, or consent certain procedures
- Delays in 'change-overs' between patients in the procedure rooms was also noticed, often due to the admitting nurse not being able to adequately consent the next patient, requiring a nurse to leave the procedure room in order to do this
- It was recognised that the role of 'admitting patients' needed to be quick and slick for change-overs to be optimised
- The nurse admitting needed to be 'thinking ahead' and continuing to fill the boxes with medical notes – indicating the next patient was ready for their procedure

What we did
- A 'competency grid' was developed, by asking all staff to indicate the roles and duties at which they felt competent. Their responses were marked against their names
- Using this grid as an initial reference, one of the unit sisters aligned the individuals reporting for duty to the roles required across the unit on a sessional basis, so that a 'rota' could be agreed for the week, matching the right skills to the right roles necessary to maintain workflow
- The unit sister then took a proactive approach to identifying individual training needs based on how 'comfortable' they felt with each role
- Exposure to roles in which people were not confident was suggested – with a certain amount of supervision from a more experienced member of staff
- Training opportunities were put in place allowing those in training to have a 'slower' list with gaps built in
- Gradually, as competencies increased, staff were rostered for these roles as routine – using a 'ramped up approach', allowing a gentle introduction to unfamiliar ways of working
- Each member of staff holds their own competency folder which will be reviewed periodically and discussed at appraisal

Impact
- Matching roles to maintain workflow has reduced delays for patients requiring discharge
- There has also been a reduction in the number of late starts to lists
- This has been extremely apparent in the pre-assessment process and pre-assessment clinics, which are now far more flexible

Example of a start stop audit



Endoscopy Staff Competency Grid

Name	
Band	
Hours	

	Confident	Need more training	Cannot do
OGD			
Colon			
Flexi			
ERCP			
EMR			
ESD			
EUS			
Halo/RFA			
Double Balloon			
Dye Spray			
Nasal Gastroscopy			
Use of ERBE			
Gold probe			
Dilatation			
APC			
Stent			
Clips			
Banding			
Scope cleaning			
Mixing of solutions			
Histology			
Co-ordinating			
Admit			
Discharge			
Pre assess			
Recovery			
CWT's			
Apex			
Graphnet			
Scorpio diary			
Ordering drugs			
Consent ogd			
Consent colon			
Consent flexi			
Consent ERCP			
Consent EMR			
Consent ESD			
Consent EUS			
Consent Halo/RFA			
Consent Double balloon			
Consent dye spray			

Study – milestone checklist

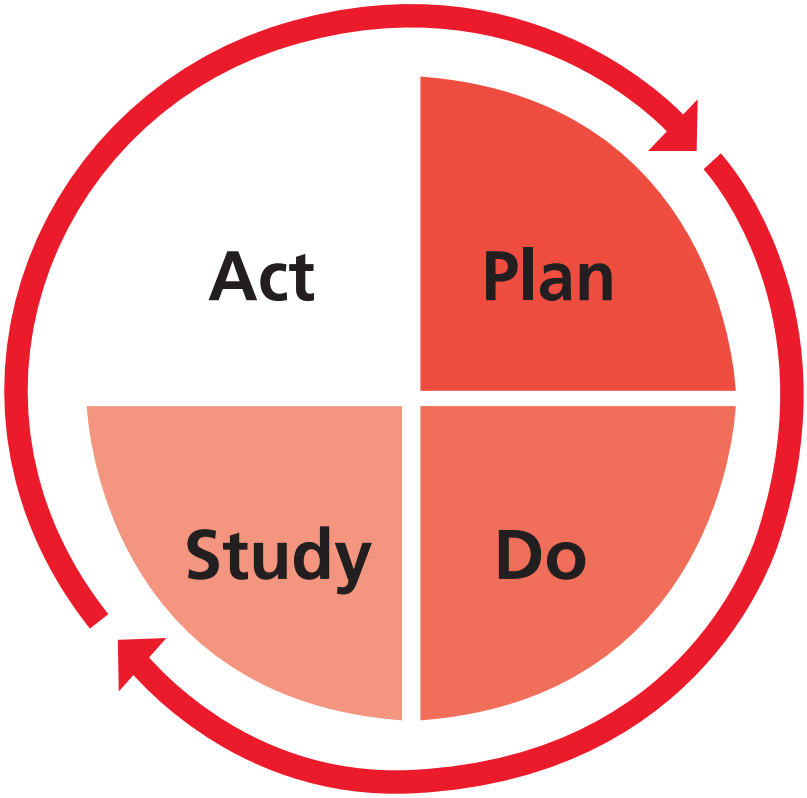
Move on to **Act** only if you have completed **all** of the items on this checklist.

Checklist	Completed?
Collected, analysed and reviewed feedback and data	
Assessed the impact 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 changes, ensure improvements are sustained and plan for scale up across the department.



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 consider whether to roll it out to other areas or review progress over a longer period of time
- Adapt the process in some way to refine or 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 as 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.

Crucially, before the team decide to adapt or abandon a change, you need to understand why the change has not been as successful as you hoped. For example, there may be poor clinical engagement, lack of time allocated to support the change or missing data. Use the 5 why analysis (see the Toolkit).

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.

Celebrate and share successes

Display successes and feed back to everyone in the team. Be sure to credit the team with their effort. Share your improvements and learning within the department, across your organisation and externally so others can learn from your work through:

- Wall displays
- Emails
- Newsletters
- Weekly review meetings
- Audit mornings
- Presentation and sharing events
- Submit your case studies of improvement to share nationally at www.nhsiq.nhs.uk.

As you communicate your improvements to the team consider what is important to different groups of staff.

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 any new areas that you roll 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

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 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 department.

	Factor	Things to consider
Staff	Clinical leadership	This module requires a high level of leadership to ensure success in both implementation and sustainability. If it is not seen to be a priority for leaders it will not be for their teams either
	Senior leadership	Senior endoscopy staff and managers supporting and driving the improvements and monitoring progress
	Training and involvement	• Provide training and support as teams implement the Model for Improvement • Involve wider teams and partner departments in developing and testing the changes
	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 improvement fits with your Productive Endoscopy Unit vision and the wider organisation's strategy. Show how it will benefit patients and tax payers
	Infrastructure	• Ensure job plans have new responsibilities defined by the changes formally incorporated • Develop policies and Standard Operating Procedures that embed the changes
Process	Benefits	Discuss with staff involved what the benefits of the new way of working are for them, your patients and the organisation
	Credibility of evidence	Share the qualitative and quantitative benefits that you have collected through the testing cycles to engage colleagues during scale up
	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 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 as part of the Toolkit.

Plan for scale up across all rooms and units

Adoption of your new Session Start Up and Patient Change-over processes may occur naturally, to some extent, as staff see and understand what you have achieved and the benefits it has delivered. However, scaling up improvement across the whole department presents a significant challenge, you therefore need to take into account various important considerations when planning for this. The steering/user group, or the programme, team may have clear thoughts on where to, and how, to migrate the improvements across all endoscopy rooms.

Standardisation

To what extent should the improvements created in the showcase area be scaled up across the whole endoscopy unit? For example, once a Standard Operating Procedure for the change-over process has been developed and tested, it would seem both practical and effective to use this across the 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.

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 roll out and engage more staff, 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.

Continue to collect, analyse and review your data. New issues may emerge over time which will need to be addressed.

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 empowerment to lead this process themselves – the ultimate aim of The Productive Endoscopy Unit.

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 have been successful and should be adopted	
Agreed which changes need to be adapted and decide how they will be taken through another testing cycle	
Agreed which changes should be abandoned	
Celebrated and shared successes	
Agreed how you will continue to monitor your measures	
Completed the Sustainability Model to identify any factors that may need further work to increase sustainability	
Developed a scale up plan for changes that will be adopted	
Identified the next area for improvement	

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 Session Start Up and Patient Change-over 'journey' with your team and asking them the questions on 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 of 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.

Question	Possible answers
Why is a safe, reliable and prompt start up important?	• Sets the momentum for the whole day • Reduces the chance of error • Meets the expectations of patients and staff
What are the financial implications of poor use of endoscopy time?	• Every minute wasted costs money. This resource could be used elsewhere within the department
What is the impact on patients, staff and the organisation of a late start?	• Increased anxiety for patients and the possibility that patients may be cancelled • Additional pressure on the staff to catch up the time which could result in error or increased likelihood that the list will over-run • Inefficient use of an expensive resource
Discuss the processes involved in session start up and patient change-over and what happens within each of them?	• Patient admission and preparation • Review and preparation of patients • Room set up
How can endoscopy staff influence a good quality start to a session?	• By taking personal responsibility for ensuring a safe, reliable and effective start to all sessions • By being solution focused and identifying opportunities for improvement • By adhering to agreed processes
How can you use measurement in improving start of sessions?	• By showing the impact of the changes we make • To make use of the data to understand the performance of each area and to work with the team to improve performance

Question	Possible answers
Discuss the advantages of standardised work and clear roles and responsibilities	• Everybody understands what is expected of them and of others • Eliminates confusion • Builds reliability into the system
Why is leadership at all levels critical to ensuring efficient start up and change-over?	• To articulate the importance of an effective start up and to monitor, support and encourage good performance • To make sure the whole team are aware of their responsibility to be making best use of the resources that tax payers fund • To encourage and support all staff to work to the standards developed for safe and effective care by the organisation
What skills have you developed during this module?	• You need strong clinical and managerial support and leadership to overcome any potential barriers that may occur, both within and beyond the scope of the programme. • Understanding the PDSA cycle and how ideas can be tested using small cycles of change • Understanding and using data for improvement • How to engage the wider team and use their knowledge and ideas to improve processes • Empowerment to be able to overcome barriers and change the system in a structured way
How will you continue to monitor and improve in the future?	• Continue to monitor key measures • If improvements are not sustained identify why and revisit the barriers • Continue to look for further ways of improving processes in terms of safety and reliability, patient and staff experience and value and efficiency
Do you recognise the importance of joint working between the ward or admissions unit, endoscopists, porters and the endoscopy unit?	• Good team working ensures that all the actions needed for patient turnaround happen together • Team working reduces the chances of error
Do you recognise the value of running different processes at the same time in order to reduce the patient change-over time interval?	• Being clear about each others roles should improve the efficiency of turnaround • Every minute wasted costs money - this resource could be used elsewhere within the department
Do you understand how delays in patient turnaround can have an impact on key measures e.g. start times, turnaround times, finish times and over-runs	• Delays cause increased anxiety for patients and the possibility that patients may be cancelled • Additional pressure on staff to catch up time could result in error or increased likelihood that the list will over-run • Inefficient use of an expensive resource
Did you learn how to identify, plan and implement improvements in the patient changeover procedures?	• Show evidence of progress and the impact the changes we make have had • Data is used to understand performance and to work with the team to improve our performance
Have you developed measures to help identify and sustain improved patient change-over?	• Give examples of measures and show how they demonstrate improvement

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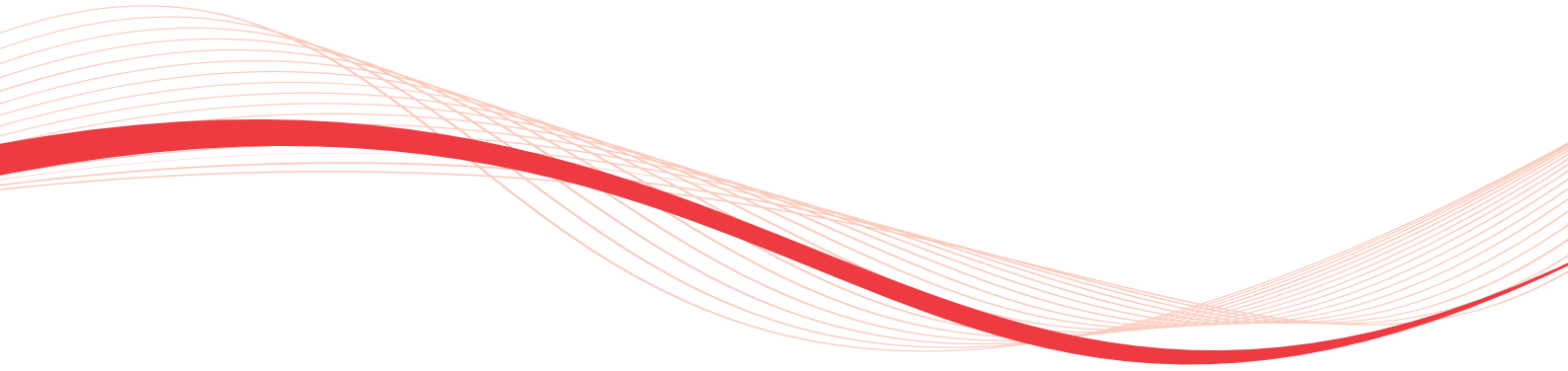

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