The Productive Operating Theatre
Building teams for safer care™

Operational Status at a Glance

Version 1
This document is for theatre managers, theatre matrons, theatre coordinators, theatre staff, anaesthetists, surgeons and improvement leads

The Productive Operating Theatre

Operational Status at a Glance

Purpose of this module

All who work in an operating theatre know what a complex environment it is. Safety and quality are paramount for optimal patient outcomes and there are many conflicting pressures and many goals to achieve during a theatre list:

- theatres are ready to go
- ensuring all equipment is available and working
- the right staff are in the right place
- lists start on time
- no cancellations
- no delays
- finish on time.

When unexpected issues arise can you identify and escalate issues in a timely and effective manner? In the event of a problem can you change the 'flight plan' to bring the day back on schedule?

This module will support you and your team to develop a system that will enable you to do this.

Operational Status at a Glance is a visual management tool which allows those responsible for coordinating resources and staff in the theatre suite to understand operational status, at any point throughout the day, in real-time. This helps to manage any quality, safety or operational issues as they arise. This module will help you develop the systems to coordinate and actively manage your whole suite of theatres.

Operational Status at a Glance can be used in a variety of ways and each theatre team will decide how they want to implement it according to their needs and local situation. The key principle is making sure that real-time information, about the progress of operating lists and deployment of staff, is instantly visible to everyone who needs to see it.

Information can be displayed so that everyone is aware of how things are going and anyone can identify an issue as soon as it arises. This offers an opportunity to rectify issues and bring the day back on track to avoid delays and cancellations. By being in control of the situation, there is less need for firefighting. Interruptions and stress levels will be reduced.

Questions for the team to consider

- Is each theatre on your 'radar' or do you manage by exception when the crisis occurs?
- How often do you review the whole picture across the department and organisation?
- Do your coordinators and team leaders have clear definitions of roles and responsibilities in daily session management?
- Is this a collaborative relationship with information going in both directions?
- Are you often interrupted by staff who want information from you that could easily be displayed and made available?
- Could more clearly structured information help you?
- How quickly can you change the 'flight plan' to resolve a situation?
- Are situations managed effectively or do situations manage themselves?

These modules create The Productive Operating Theatre

The Productive Operating Theatre

Process	Session Start-up	Patient Preparation	Patient Turnaround	Handover	Consumables and Equipment	Recovery

Process

| Session Start-up | Patient Preparation | Patient Turnaround | Handover | Consumables and Equipment | Recovery |

Enablers

| Team-working | Scheduling |

| Knowing How We Are Doing | Well Organised Theatre | Operational Status at a Glance |

Toolkit

Foundation

Programme Leader's Guide

Executive Leader's Guide

Contents

1. What is Operational Status at a Glance?

What is it?
Operational Status at a Glance uses visual management to support individual theatres and the whole theatre suite to demonstrate real-time status of staff and lists at a glance. This allows staff to actively manage operational issues and mitigate any quality or safety risks as they arise.

Why do it?
To ensure safe, reliable and efficient running of theatres on a daily basis so:
* you can identify and solve the exceptions which cause delays, over-runs, cancellation or delayed discharges, bringing the day back on track
* that support can be provided in a timely manner
* each person's role within theatres is clearly defined
* that interruptions can be eliminated by making this information readily available
* that a well controlled environment can improve staff well being.

What it covers
This module will help you to understand the concept of Operational Status at a Glance and determine the best way of visualising and displaying operational status within your theatre department.
You will consider:
* who requires operational information at a glance?
* what type of information might be displayed and how?
* why are we going to do this – what type of visual display will help you to understand your operational status?
* when and how often will this need revising in order to keep information live?
* how often will you review it?
* how will you ensure that the information is used effectively?

What it does not cover
This module does not specifically offer recommendations on what information you should display and use. It provides a framework for you to develop your own practical solutions based on the individual requirements of your own department and your staff. It does not cover implementation of technical or IT-based solutions, although it acknowledges these may be one answer to some of the challenges.

Learning Objectives

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

- understand how the principles of visual management work and why this is an important tool in managing operational workload

- understand the level and impact of interruptions on individuals, as well as other day-to-day issues affecting the plan for the day, and how you can reduce them

- learn how to use the model for improvement to develop Operational Status at a Glance boards and systems based on your own requirements

- understand the benefits of a structured review system and how to use it to continually improve your information and displays

- understand how clearly defined roles and responsibilities help to communicate changes in operational status.

What tools will you need?

Tool
Meetings
Interviews
Activity follow (to measure interruptions)

Visualisation – the three-second rule

The Productive Operating Theatre works on the principle of the three-second rule. All storage areas should be laid out and labelled in such a way that any item of equipment is found within three seconds (see the Well Organised Theatre module). Similarly, a communications display board should be so clearly laid out to enable staff to find the information they need within three seconds. This will ensure any communication process is clear and simple.

Think of a no entry sign on the road. This is an example of an instantly recognisable instruction. Other driver information requires a little more attention but can be easily understood to guide the driver through their journey.
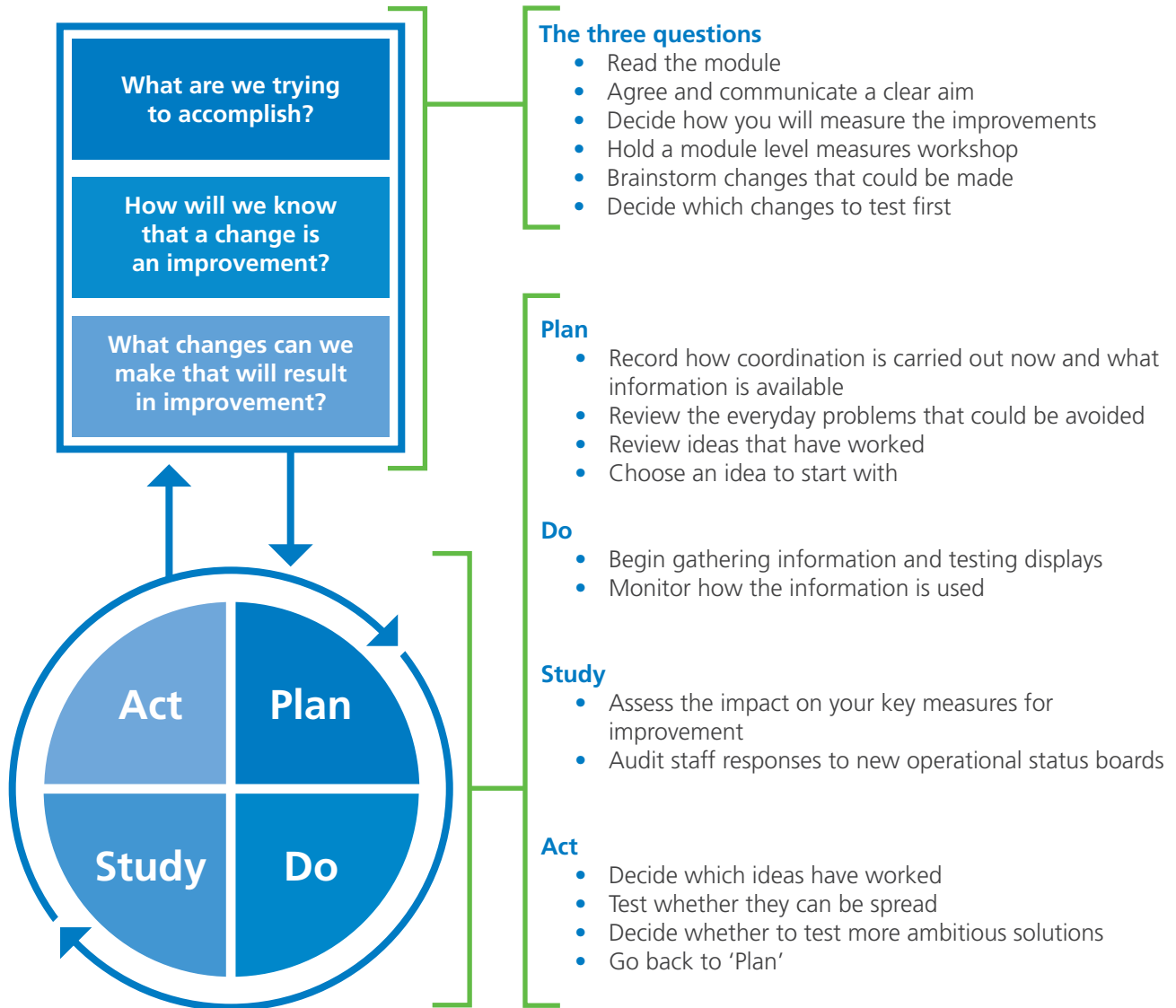

Consider how easy it is to understand how a patient is doing by scanning their observation chart.

The aim of Operational Status at a Glance is to make a range of operational information clear and easy to understand by all relevant staff groups. Working through this module will identify your most frequently used information and make it clearly accessible.

How will you do it in your theatre?
The model for improvement

What are we trying to accomplish?

How will we know that a change is an improvement?

What changes can we make that will result in improvement?

Act **Plan**

Study **Do**

The three questions
- Read the module
- Agree and communicate a clear aim
- Decide how you will measure the improvements
- Hold a module level measures workshop
- Brainstorm changes that could be made
- Decide which changes to test first

Plan
- Record how coordination is carried out now and what information is available
- Review the everyday problems that could be avoided
- Review ideas that have worked
- Choose an idea to start with

Do
- Begin gathering information and testing displays
- Monitor how the information is used

Study
- Assess the impact on your key measures for improvement
- Audit staff responses to new operational status boards

Act
- Decide which ideas have worked
- Test whether they can be spread
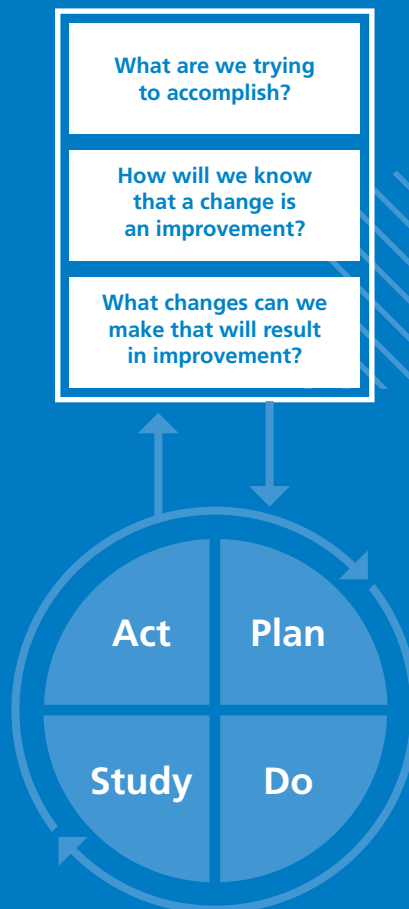- Decide whether to test more ambitious solutions
- Go back to 'Plan'

2. The three questions

Before you start implementing Operational Status at a Glance, make sure you are clear about the approach you are going to take.

Take time to read the module through to understand the full scope of what is involved. Form a small module team and choose a module champion. Then ask the team to work through the following questions.

What are we trying to accomplish?

How will we know that a change is an improvement?

What changes can we make that will result in improvement?

Act

Plan

Study

Do

1. What are we trying to accomplish?

Improvement requires setting aims; you will not improve without a clear and firm intention to do so. Your aim for the Operational Status at a Glance module should be time-specific and measurable, or SMART.

Setting a SMART aim

There are four steps to setting your goals:

1. Collect data for each measure to create a baseline.
2. Gather data from similar theatres to see what they have achieved.
3. Look at the benchmark to see what is best or you may have some locally agreed goals or standards which go beyond these.
4. Set an aim for each measure according to **SMART** principles:

   Simple – give the aim a clear definition (eg reduce turnaround time)

   Measurable – ensure that data is available

   Aspirational – set the aim high to provide a challenge to the team

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

   Time bound – set a deadline.

You have already developed a vision for your programme; ask yourself how the Operational Status at a Glance module contribute to achieving your vision?

Record your thoughts on a flipchart. Once agreed, communicate the module aim on your Productive Operating Theatre noticeboards showing how the aims of this module link to your vision.

What does operational status mean?

The operational status of your department includes an awareness of any issues that could negatively impact on your ability to carry out the workload across the suite safely and on schedule.
- This is a dynamic process that relies on maintaining situational awareness and reviewing the position regularly.
- It identifies any factors that may affect the running of the day.

Examples of typical factors that increase awareness of the situation

Start-up
- Are all staff present – numbers and skills – does everyone know where to go?
- Are theatres ready to start on time?
- Are there any equipment issues such as items` missing, faulty, undergoing maintenance?
- Are support services ready, available and in place, eg imaging / pathology etc?

Regular review
- Are you on schedule?
- Did all theatres start on time? If not why?
- Are there any significant delays? Might this affect your ability to finish on time? What is your plan to deal with this?
- What is your emergency workload? Do you have sufficient theatre capacity to manage this or do you need to identify further theatre space?
- What is the trust's bed status and the potential knock-on effect on the department?
- Will any morning over-runs impact on the afternoon session? If so how can you reduce this impact?

This is not a definitive list but will help you identify the sort of issues you may want to take into account for your reviews of operational status.

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

As part of Knowing How We Are Doing, you will have agreed a balanced set of measures across the four programme aims.

How will your improvement from the Operational Status at a Glance module be represented in the balanced set of measures?
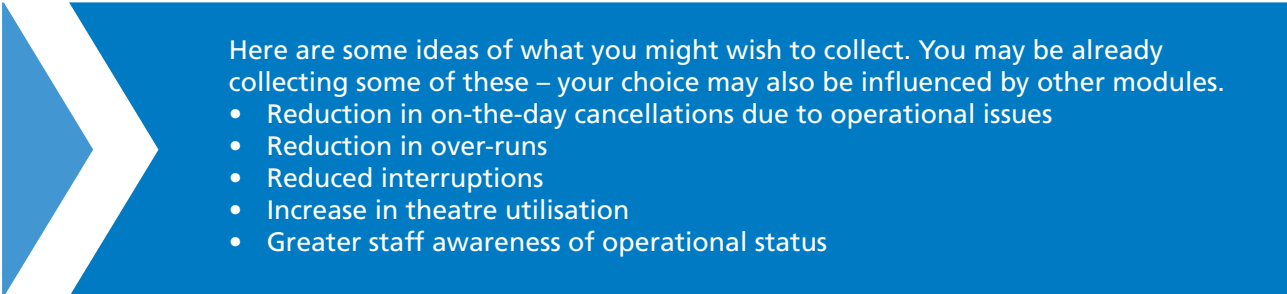
If it is not explicit, you will need to include an intervention level measure that will capture the impact of this module. The suggested measures sheet and driver diagrams in Knowing How We Are Doing will give you some ideas of how to do this.

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

The aims of this session are to:
• refresh the team's understanding of how to use measurement to drive improvement
• understand how the Operational Status at a Glance module fits into your agreed balanced set of measures
• identify measures for the module
• decide how to collect, analyse and review the information
• complete a measures checklist for the module.

Once agreed, start collecting, analysing and reviewing data for your balanced set of measures.

Here are some ideas of what you might wish to collect. You may be already collecting some of these – your choice may also be influenced by other modules.
• Reduction in on-the-day cancellations due to operational issues
• Reduction in over-runs
• Reduced interruptions
• Increase in theatre utilisation
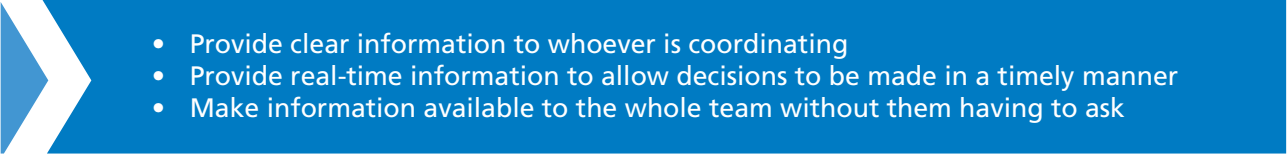• Greater staff awareness of operational status

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

Having read the module and agreed on a clear aim, start to think about the changes you could make within your department that will result in improvement.

You will now have an overall idea of what you want to achieve from the Operational Status at a Glance module. With your team work through a number of Plan Do Study Act (PDSA) cycles testing a variety of different solutions for capturing and displaying operational information in your test theatres, and subsequently right across your department.

Lots of examples of changes that have been shown to work are given in the next section – Plan.

- Provide clear information to whoever is coordinating
- Provide real-time information to allow decisions to be made in a timely manner
- Make information available to the whole team without them having to ask

The three questions – milestone checklist

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

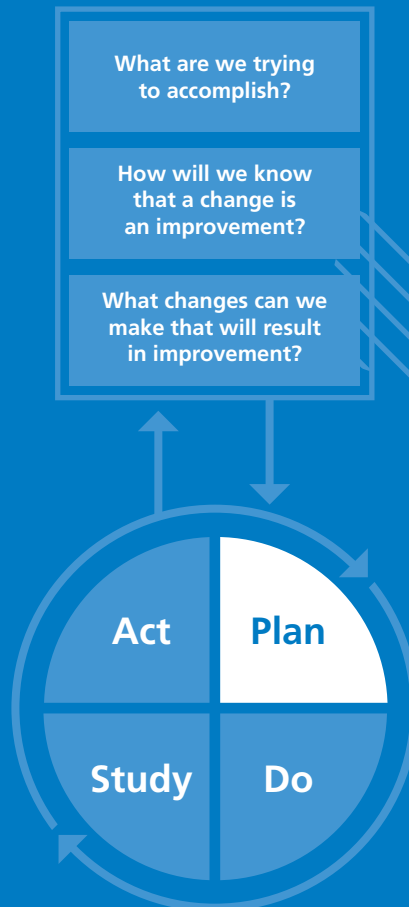| Checklist	Completed?
Read the module	
Decided and communicated a clear aim for the module	
Held a mini measures session	
Agreed how you will measure your impact	
Thought about what changes you will make	

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?	

3. Plan

There are a number of steps to work through to help you plan tests of change (PDSA cycles) for implementing this module.

The module team has to understand the importance of involving all groups of staff to make sure the solutions tested in PDSA cycles will meet everyone's needs.

What are we trying to accomplish?

How will we know that a change is an improvement?

What changes can we make that will result in improvement?

Act

Plan

Study

Do

Plan

The programme team need to identify a team for this module. This should include champions identified in your visioning workshop, but they will need support from the programme leader and service improvement expert.

Step 1: decide who will be involved
- Theatre manager / matron.
- Theatre coordinators.
- Improvement leader.
- Any other team members who will need access to operational information, eg recovery staff, theatre teams and junior doctors.
- Could you involve any champions identified from your visioning or measures workshop?

The participants may change depending on whether you are concentrating on staff allocation or real-time operational status of operating lists.

Step 2: talk to staff
- Understand the general feeling from staff about the use of information boards in theatres?
- Explain the potential benefits.
- Consider what real-time information staff need to understand.

'Always seek staff opinion on how they want a visual management tool to be.'
Claudette Wright – theatre sister, Central Manchester University Hospital NHS Foundation Trust

Step 3: identify current sources of information
- What information systems are currently used (think about both paper systems and electronic systems)?
- What information do they give you?
- Are they up to date?
- What do you do with that information?
- How accessible and usable is the information?

Step 4: take photographs

- Try to capture all the places where operational status information is kept, even if not on display, eg IT systems, allocation rotas and off-duty.

Step 5: understand your trust's confidentiality policies

- Make sure you are aware of what you can and cannot display and where. This varies and will depend on your local policies.

Step 6: understand interruptions

- Keep a simple tally chart to identify and categorise what the coordinator is being interrupted for.
- Consider carrying out an activity follow of the person coordinating theatres to collect this information (see Toolkit).

'While observing the coordinator during the start-up of the day, she handled multiple interruptions every minute. During one minute there were no interruptions – this felt like a whole five minutes! A significant number of the interruptions were neither urgent nor important. It was obvious that better access to information by the team, as well as clear guidance over what a coordinator should be approached for during key periods would reduce this level of interruption and distraction. This would allow better focus on effective coordination and was the starting point for our main operational board.'

Ann Abbassi – programme leader and lead nurse, theatres and day surgery, Heart of England NHS Foundation Trust

Review your current state

Review and analyse the information you have gathered so far to with the team. Use the following questions to guide your discussion.

	Examples
How is operational status currently monitored in your department?	• Is there one person responsible for the coordination of your theatres? • How regularly is operational status reviewed throughout the day? • Do you have display boards outside theatres? • Is there a main white board – staff allocation? List progression? • Do you use IT systems? If so how accessible? • Or is all the information inside one person's head?
What operational status information is available?	• Theatre lists displayed • Staff allocation list • Bed status
Where does the information come from?	• Verbal information • Other departments • Theatre teams • Intranet and computer systems
Who is responsible for the information?	• Theatre coordinators • Team leaders • Theatre clerk • Do they face frequent interruptions?
What do you do with the information?	• Are people responsible for acting on this information? • Is this information used as the basis for any formal discussion or review? • How is the information shared?
How do you currently manage problems?	• Looking ahead to anticipate and avoid problems • Wait for the problem to arise and then manage it • Could you improve performance if you had better operational status information available at a glance?

Review with the team what operational status information would be most useful for your department. Use the following questions to guide your discussion.

Theatres	Theatre manager / coordinator area	Recovery
Do staff know where they are allocated today? Can you identify what session is happening in each theatre? How many cases are there today? Are there any issues, eg cancellations, changes to list? How would you like to use the board for briefing meetings?	What is your workload today? How many emergencies are waiting? What are our staffing issues? What is the trust's bed status? Did all theatre sessions start on time? What glitches have occurred? Are there any potential problems that might come up later today?	How can the team track the status of patients? How do we identify and escalate delayed discharges? Can we develop better links with the wards?

Tip: *If a senior manager visited your department, could you provide them with a real-time overview of the operational status of the department – and have detailed information at hand? Even better, could they access this information without even having to disturb you?*

THEATRE 40 THEATRE 41 THEATRE 42 CDU ELECTIVE THEATRE 43 CDU URGENCY THEATRE 44 IVF TH OLD SMH

TPOT

SURGEON
ANAESTHETIST
THEATRE TEAM

SURGEON
Dr Naidoo
ANAESTHETIST
Dr Stokes
THEATRE TEAM
Anaes- Dave / Rob
Helen B
Helen Mc @ 10
Bev
Leanne 8.15

SURGEON
Dr Reid
ANAESTHETIST
Dr Bigeon
THEATRE TEAM
Anaes- Sarah M / Sarah S
Jane
Angela - ?
Hillary
Tariba

SURGEON
ANAESTHETIST
THEATRE TEAM

SURGEON
ANAESTHETIST
THEATRE TEAM
Anaes - Eric
Ambili
Sophie
Julie D @ 9

SURGEON
ANAESTHETIST
THEATRE TEAM
Anthea
- ring Dept / Vanessa
if need more help

Helen. B

OUT OF THEATRE/

SURGEON
ANAESTHETIST
THEATRE TEAM
- Bridie / Dave
Coffee relief
etc.
- , leanne
B emergency CDU
team - Stock up

SURGEON
ANAESTHETIST
THEATRE TEAM
Anaes: Sarah. A
Jane
Angela
Hillary
Tariba

SURGEON
ANAESTHETIST
THEATRE TEAM
Anaes: Sarah. B
Ambili
Anthea
Sophie

SURGEON
ANAESTHETIST
THEATRE TEAM
Anaes: Rob
Helen Mc
Bev
Tina

STUDENTS / VISIT

General Duties

THEATRE COORDINATOR

ALERTS !!
MESSAGES FOR THE DAY

Extra Scrub Shirts
Sat 8th Aug 8-9 Question
Exam Shirts in recovery
all week
Please Do Not Tape Notes
to the wall
Childett See it's ne Meeting
table

TEAM

ORDERLIES
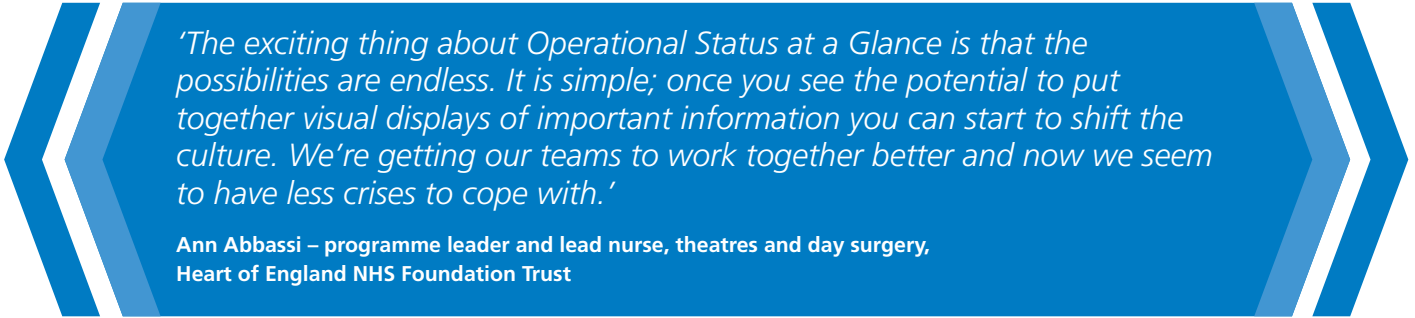Billy - 6253
Ray - 1026
INSIDE MAN
Billy / Ray

© CMFT.

Consider what has worked well elsewhere

Operational Status at a Glance is all about the recording and display of real-time information in locations that are easily accessible to those who need to enter it and to those who will review it. There are many ways of making this information available. These range from a paper-based system and simple white boards through to interactive white boards and plasma screens linked to your IT system.

The solution you develop will depend on your local circumstances but is usually better to experiment with simple low-technology solutions – even if you want to end up with a technology-based solution at the end. This will allow you to experiment with lots of ideas quickly. It will also steadily increase confidence that your solution is suitable and effective and increase agreement between all parties that helped you develop it. A simple, cost effective and versatile way to start experimenting with collecting and displaying operational status is to use a white board. If it is magnetic this is a bonus.

Before deciding what you want your system to look like, think about what you are hoping to achieve. Go through the following examples with your team. They demonstrate examples of solutions that have been developed in a variety of theatre departments. You can use them to trigger ideas and discussions within your team. You may find that you already have some of these in place, but there may be other ideas that you will recognise as being helpful.

'The exciting thing about Operational Status at a Glance is that the possibilities are endless. It is simple; once you see the potential to put together visual displays of important information you can start to shift the culture. We're getting our teams to work together better and now we seem to have less crises to cope with.'

Ann Abbassi – programme leader and lead nurse, theatres and day surgery, Heart of England NHS Foundation Trust

What worked well

Example 1: a simple paper-based systems
Medway NHS Foundation Trust

When patients arrive at the theatre suite, their name is highlighted on the theatre list, pink highlight for female patients, blue highlight for male patients.

As one person is responsible for collecting, updating and displaying this information in a central location, this allows for easy access. This is a simple way for all staff, at any time of the day, to understand which patients have arrived, without having to interrupt another member of staff.

Periodic reviews by the coordinator will enable them to identify if there is a risk of an over-run or a cancelled patient, enabling the plan to be changed and the problem averted.

Example 2: staff allocation board
Medway NHS Foundation Trust

The staff allocation board is populated each evening before the staff have finished their day. In the morning when staff arrive they can see where they will be working that day. This eliminates the need to ask people where they are allocated and ensures staff know where they are working the next day.
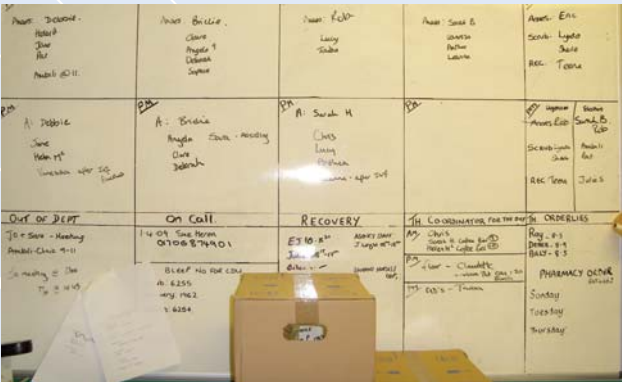
Example 3: a story of evolution

Central Manchester University Hospitals NHS Foundation Trust
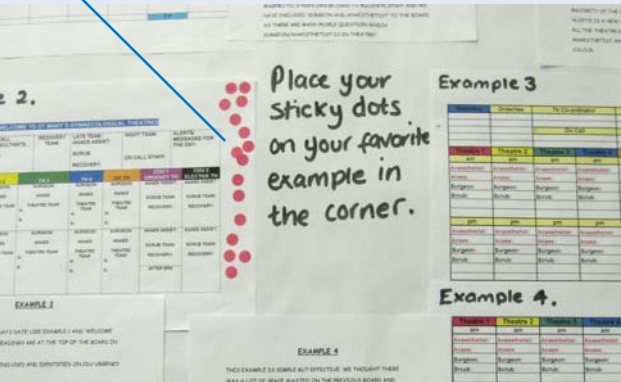
Current state

- This was the original staff allocation board.
- The team identified what could be improved.

Prototyping

- The team canvassed staffs opinions.
- Devised four prototype boards.
- Two-week consultation period.
- Undertook dot voting on the options.

First test cycle

- Feedback taken into consideration to develop first working version for testing.

Began amendments

- Following feedback from first trial an improved and more robust board is developed.

Latest version working well but the team continue to make further improvements
- Magnetic board ordered with name plates.
- Will add magnetic traffic light status alerts.
- Introducing mini boards outside each theatre.
- Agree with staff who needs to update the board.
- Review meetings held twice daily.

'*Always explain what you are doing to all staff prior to any amendment as it may overwhelm them.*'

Claudette Wright – theatre sister, Central Manchester University Hospital NHS Foundation Trust

Example 4: status boards outside each theatre

West Middlesex University Hospital NHS Trust

This Trust has a board outside each theatre. This is easy for the staff to maintain, and since all the theatres are on a single corridor, a picture of overall status can be gleaned without interrupting theatre staff.

First test cycle

• The first prototype board was very simple.

Second test cycle

• Staff feedback revealed that not all of the information they were collecting was useful.

Third test cycle

• Based on feedback, a more focused board was developed to meet the teams needs.

Fourth test cycle: magnetic staff allocation board

- After seeing the benefits of the individual theatre status boards staff developed a centralised theatre allocation board.
- The coordinators find it easy to move staff names.
- The displays are always clear and legible.

Example 5: developing operational status at a glance
Heart of England NHS Foundation Trust

First test cycle
• Establishing status boards outside each theatre.

Second test cycle
• Developed a main operational status board to improve overall coordination.

Third test cycle
• Introduced midday operational status review meetings.

Fourth test cycle: interactive white board
• Implementing interactive white board that will increase availability of real-time information for improved coordination.

Example 6: operation status and staff allocation boards
The Shrewsbury and Telford Hospital NHS Trust

- Staff allocation board centrally located opposite a plasma screen which links to the trust scheduling system.
- This allows staff to see the status of the theatre lists and where they are allocated.

Plan – milestone checklist

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

Checklist	Completed?
Identified core team of users	
Explained and discussed principles of Operational Status at a Glance with the team	
Identified your current systems for monitoring operational status	
Measured interruptions of key staff, eg coordinator, team leader	
Obtained your trust's confidentiality policy	
Interviews completed, photographs viewed, comments recorded	
Key questions asked and answers recorded	
Reviewed which areas would benefit from an Operational Status at a Glance board	
Suggested information identified and collected	

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. Do

Once you have understood your current state and come up with ideas of what you want to try out, move on to implementation. Do not expect staff to take to new ideas immediately, experience has shown this module works best if changes are made incrementally so that staff can influence them. This module involves many iterations of the PDSA cycle.

What are we trying to accomplish?

How will we know that a change is an improvement?

What changes can we make that will result in improvement?

Act

Plan

Study

Do

Developing a prototype

Before making any investment in buying and installing new boards or systems create a prototype board to test your ideas.

• Identify an area where the team is keen to try out the concept.
• Discuss with the team how they would like to lay the information out.
• Be flexible – the information will be changed and moved several times in the early stages.

By using a prototype it is very easy to make amendments and alterations – as more people use the board more ideas will be generated which will require items to be added.

Board

The aim of any information board is to enable the transfer of information quickly. The size of the board has an impact on this.

• Too small and the board is very hard to read and information is cluttered.
• Too big and the board becomes overwhelming and it is tempting to overpopulate with information.

Your decision on the size of board will involve factors such as the availability of space, the information you need to show and the availability of materials.

A good way of starting is with the standard 4ft x 3ft magnetic office whiteboard. This is because:
• it allows plenty of space to record information
• magnetic boards are very versatile
• the format can easily be changed in response to feedback
• they are inexpensive and widely available
• you can often find an unused one somewhere in the trust.

Location

The location of your operational status information is vital to its success. You and your team should consider the following:
- where do people enter and exit the suite and congregate for briefing?
- which staff based outside the department need access to it, eg bed managers, senior managers and consultants?
- what information do you wish to display and what level of access do the theatre team need to record information and use it?
- will there be sensitive information on display?
- where do you have the space required?

Materials

The creation of your board need not be an expensive exercise.

- If you have a metal backed whiteboard then magnets are ideal as markers – magnets are available in all colours and sizes from stationery suppliers.
- Large stationery suppliers also stock magnetic tape which is great to help divide up areas of the board, and modify divisions.
- Coloured tape is also ideal for dividing sections of your board – a good way of getting hold of coloured tape is by talking to your facilities department and asking for electrical insulation tape.

Implement in stages

- The early stages of this module can be used very effectively to provide information quickly and clearly.
- If your theatres do not use operational status boards already, teams may feel that this is extra work. At first it can seem a little intrusive. It is essential to allow time for teams to accept the concept and to take on new ways of working.
- Try starting slowly and gradually develop more items. This allows people to familiarise themselves with operational status information and be comfortable with what and why it is required before introducing additional items.
- It will take time for all teams to remember to fill in their information – check daily and encourage everyone.
- Involve as many staff as you can in offering suggestions as to how the boards could improve their working lives.
- Once staff see the benefits of having information freely available they will be encouraged and will want to be involved.

Various forms of prototype boards can be used:
- **magnetic boards and magnets**
- **laminated sheets and dry wipe pens**
- **whiteboards – economical and easy to use.**

Reviews

Once you have decided what information to collect and how to present it you need to start using it. There is little point in collecting and displaying information if you are not going to use it regularly.

Progress reviews play an important part in the operational management of theatres. Encourage theatre teams to use the operational status boards at their review meetings and at debriefing sessions (see Team-working).

Review meetings can take different forms. These can be tested and adjusted for your particular circumstances.

Start-up review

Timing: 30 minutes after the planned theatre start time
Who: theatre coordinator

Review items
- Did the sessions start on time? If not, what will be the likely impact on finish time or afternoon lists?
- Is the list achievable for the session?
- Are all equipment and consumables available for each list? If not, what is the plan?
- Have there been any changes to the list?
- Have any patients been cancelled?
- What spare capacity (theatre space and staffing) do you have that could be used to relieve pressure?

Periodic reviews

Timing: as required to meet local circumstances
Who: theatre coordinator

Review items
- Are all theatres working to schedule?
- If not, what can you do to recover the situation?
- Reasons for late starts – what can you do to support the teams?

Midday review

Timing: towards the end of morning sessions
Who: theatre coordinator leading the review with the following – theatre matron / manager, recovery lead, bed managers, day surgery lead

Review items
- Theatre status.
- Emergency workload status – is this manageable or do you need to review capacity?
- Recovery status – are there any delayed discharges from recovery?
- Bed status.
- Are there any potential problems anticipated for the rest of the day?
- Are there any potential problems identified for tomorrow? If so what is the plan for dealing with them?

'I think that the whiteboards outside the theatres are a great idea – I can easily find out what's going on and who is in theatre.'

Anaesthetic registrar, West Middlesex University Hospital Trust

Clarify escalation procedures

The purpose of this module is to help you to identify issues early and deal with them to avoid or minimise their effect. Each member of the team needs to understand their role and responsibilities in the operational running of the whole department.

For example
Theatre sister / team leader and team have the responsibility for managing their areas and any potential issues:
* starting on time (see also Session Start-up)
* managing theatre turnaround time (see also Turnaround)
* managing the theatre finishing time
* identifying any problems within their area and finding solutions
* escalating promptly to coordinator or senior team where solutions cannot be found within the team.

The recovery team has the responsibility for managing the recovery room:
* taking handover of patients from theatre and managing their recovery
* managing the handover and return of these patients back to the wards (see Handover)
* planning ahead to identify problems such as lack of capacity or delayed discharge of patients
* prompt escalation to the senior team where solutions are not identified.

Coordinators are responsible for maintaining high situational awareness and for monitoring the performance of each area. This will be by a combination of:
* updating and using the operational status information available – monitoring and anticipating issues
* management by exception – knowing that certain agreed aspects are on track unless clinical areas have alerted or escalated issues
* high visibility – maintaining contact with clinical areas periodically
* regular review
* escalation of serious issues, such as the need to cancel a patient when every attempt to avoid this has failed.

Do – milestone checklist

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

Checklist	Completed?
Created a prototype visual display board	
Implemented a prototype visual display board	
Established regular reviews	
Clarified escalation procedures	

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. Study

In this module you will test a number of ideas. It is important to keep track of your measures of success so that you can assess the impact of changes soon after you make them.

Trialling operational status at a glance

Why are we testing?
- To see if the information displayed is making a difference.
- Is the system being used – if so by who and what for?
- Does it provide useful information on how the day is managed?
- Are there any new problems arising from using the new ways? Look out for signs of unexpected problems.

Before the test starts
- Determine how long the trial will run for.
- Remember it needs to be long enough to show errors and opportunities, and short enough to change and try again.
- Inform all staff that the trials will be starting, some staff will be on shifts so may not be aware, use posters to ensure you communicate with everyone.
- Make sure you have specified the staff responsible for completing the information on the board.
- Set clear ground rules. Do not allow the board to be used for other purposes or an opportunity for casual comments that may be detrimental to a professional patient environment.

'Testing the system took longer than anticipated. Staff needed time to adjust to filling in operational status at a glance boards and it took a couple of months before this was being done reliably. We monitored daily and reminded staff while encouraging them to fill the information in. This is now well established.'

Janet Henry – theatre manager/matron, West Middlesex University Hospital NHS Trust

During the test

- Gather feedback from the team to identify what works well and what doesn't work so well.
- Take time observing operational status at a glance being used.
- Encourage suggestions – use a flipchart to collect ideas.
- Capture the *before and after* state with photos and videos.
- Invite visitors from the management team to view the system and participate in a review meeting.
- Create an audit sheet for your operational status boards (see example in Study Section of this module) and audit regularly while trialling different options.

Evaluating the trial

It is important to evaluate and audit the impact of the operational status at a glance information.

- What feedback have you had from the teams and others?
  - What are the good points?
  - What negative points were raised?

- Has information been more accessible?

- Who has been using it and for what purpose?

- Has the use of operational status at a glance facilitated the coordination of the day or decision-making?

- Have there been any suggestions to amend or improve the display?

- Have any pieces of information evolved over the trial period?

Example audit checklist

Decide:
- who will complete it
- how often will they complete it
- how often will you discuss the results.

Operational Status at a Glance audit checklist Date_____	YES = 1 NO = 0
Was the information up-to-date?	
Were any reason for delays listed?	
Were all status indicators updated?	
Add additional checks relevant to your area	

Analyse

- Decide whether your operational status displays can be further improved.
- Is additional training required to make the changes work?
- Testing and analysing the results is very important when developing an operational status display.
- It is highly unlikely your boards will be correct first time. Creating a system that really works for your theatres will require trial and error. You will need to evolve the solution over time. Be open to testing a variety of different approaches.
- Evaluating and re-evaluating is essential. Even when the whole team agree on a decision in principle, when you put it into practice it may not work as you expect and you will reveal unanticipated problems.
- Use the model for improvement and the PDSA continuous improvement cycle to ensure you reach a successful outcome.

OSAG Board Audit

Please Tick as appropriate

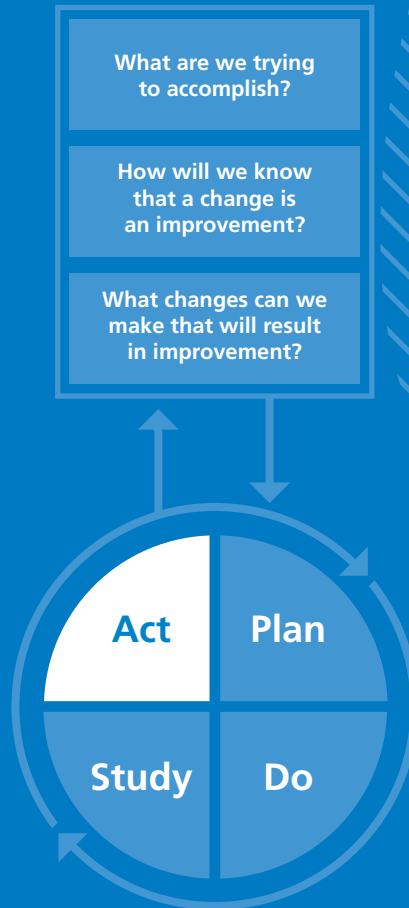| AM	Monday YES	NO	Tuesday YES	NO	Wednesday YES	NO	Thursday YES	NO	Fri YES
Are you confident the information on the board is correct, reliable and up to date at the time of audit?									
Was the information on the board beneficial?									
Is the board easy to use/understand?									
Is anything missing off the board?									
When was the board was last updated?									
PLEASE INITIAL									

Study – milestone checklist

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

Checklist	Completed?
Talked to staff about the new boards and record their comments	
Implemented an audit checklist	
Decided whether additional improvements should be made	

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. Act

What are we trying to accomplish?

How will we know that a change is an improvement?

What changes can we make that will result in improvement?

Act | Plan

Study | Do

Act

By the end of each trial the following decisions should have been made:
- what information has proved useful and what has not?
    - there is no point recording things that have no benefit to any of the team
- was information more accessible?
- did the information help with decision-making?
- did it save time and reduce interruptions?

By answering these questions you can then agree with the team what the layout of the next test board will look like. Transform your board from a prototype into a working version in stages. Remember you should continuously improve your system by reviewing on an ongoing basis.

How can you make it stick?

Monitor and audit continually
- continue to monitor the operational status at a glance on a daily basis – and audit it on a regular basis (weekly to start with).

Ensure leadership attention
- Operational Status at a Glance is key to the effective coordination of the department. Strong interest and support from senior leadership will help the teams to understand the importance of developing this module, as well as ensuring sustainability (see the Programme Leader's Guide for more on sustainability).

Do not stop trying to improve
- encourage theatre staff to continue to find newer and better ways of working. Your information requirements will evolve and your operational status at a glance will require continual adjustments.

Keep returning to the PDSA approach to testing ideas
- The intention of The Productive Operating Theatre is to instil a new culture in which all staff are empowered and enabled to improve the things they do on a continuous basis.

Act – milestone checklist

Checklist	Completed?
Analysed feedback and audit checklists	
Agreed and implemented the optimum board layouts and locations	
Developed a plan to continually monitor and audit the use of the board	
Decided how you will review each board and continue to improve it	
Agreed next version to test	

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. Learning objectives complete?

Five objectives were set at the beginning of this module. Test how successfully these objectives have been met by asking theatre team members the questions in the grid below.

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. If all the responses broadly fit with the answer guidelines then the learning objectives of the module have been met.

Note the objectives where the learning has only been partly met and think about how you can change the way you approach the module next time around so that the responses are fully met. It sometimes helps to re-read the module and reflect on your experience in implementing the module first time round.

Question (ask the team member)	Answers for outcome achieved
What is the principle of visualisation?	• Making information easy to get • Simplify things 'a picture paints a thousand words' use symbols and colours instead of words
What issues impact on a typical day and how is it communicated?	• Information not communicated • Decisions not made early enough • No understanding of the situation
How would you develop operational status at a glance around your own team's needs?	• Talk to staff about what information would help them • Develop a prototype board and get feedback on its use • Allows you to capture feedback in a structured way
What are the benefits of a structured review system and how would you continually improve your board?	• Provides a mechanism where all staff know how they can get their thoughts and ideas heard • Through monitoring and continually auditing the use of the board, making improvements as necessary
How do clearly defined roles and responsibilities help to communicate changes in operational status?	• By everybody knowing who is responsible for updating the board means that the whole team will have confidence that the information is up-to-date

Acknowledgement