

Day Surgery - A Good Practice Guide

Treatment Centres

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The NHS Modernisation Agency is
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1. Introduction

The Modernisation Agency Day Surgery Programme has produced this guide to good practice in day surgery in order to share learning from the programme's work and improve access to day surgery services.

In August 2002 Day Surgery: Operational Guide was produced as an aide for managers and commissioners to improve efficiency in day surgery units. This guide goes one step further and provides examples of good practice, incorporating live examples of where services have improved. It is aimed at all stakeholders within the health economy involved in the provision of day surgery, including doctors, nurses, allied health professionals, managers, commissioners and patient groups. It provides teams with an opportunity to compare different models of service provision and share some of the learning while changing practice. The guide also outlines the benefits of the change to patients and staff.

2. Background and Context

The *NHS Plan* and the 2002 *Planning and Priorities Framework (PPF)* set out targets for waiting times for 2005 including:

1. six months maximum wait for inpatient treatment
2. three months maximum wait for outpatient treatment
3. twenty-four hour maximum wait for primary care professional and 48 hour maximum wait for access to a GP.

In addition, the *NHS Plan* and the *PPF* set a further target of:

4. three months maximum wait for inpatient treatment by 2008.

To achieve these targets and to increase NHS efficiency, the *NHS Plan* also predicted that 75% of all elective surgery should be done on a day case basis. This was based on an underlying assumption that in order to meet key access targets, the amount of activity undertaken must be expanded and activity must transfer from an inpatient to a day case basis.

In September 2002 the Modernisation Agency's Day Surgery Programme was established to support strategic health authorities and trusts in achieving the above targets. The programme was established with four objectives:

- to support SHAs and trusts in delivering the levels of day surgery required to make a significant contribution to the access targets

- to improve patient care, by ensuring patients are treated by skilled staff at the right point in the system
- to increase the efficiency of the NHS by facilitating the shift from inpatient to day case, outpatient to primary care and by increasing the productivity of day surgery units
- to support clinicians and staff in adopting best practice in day surgery.

The initial focus of the programme was on providing intensive support to nine acute trusts with below average day case rates. This support consisted of a thorough review to establish a baseline and then determining opportunities for improvement. The learning from these nine sites is incorporated in this guide to be used as the programme moves on.

The next phase is to offer SHAs support and provide them with tools to use within their local health economy. Each SHA has appointed a Day Surgery Lead and most have a Clinical Champion to facilitate this work.

The Day Surgery Programme links with the Treatment Centre and Theatre Programmes to ensure best practice is captured and spread throughout the elective care pathway.

3. The Guide and how to use it

The Guide

The *Best Practice Guide* sets out the collective experience of the Day Surgery Programme gathered together with some of the most useful reference material relating to day surgery. All of this is set in context using examples of good practice from the best performing trusts in the country.

The guide has therefore developed into an organised collection of existing and new material designed to support a whole health economy in their development of effective day surgery services. It is a resource that can be accessed and used by all organisations interested in day surgery provision; both providers and commissioners.

The guide is based around the day surgery process and it collates the work carried out by the team to improve day surgery services, offering best practice examples from excellent sites around the country. The guidance available ranges from strategic to very specific practical tools, incorporating design of systems and processes. It also highlights a range of academic references, evidence and further research resources.

How to use it

The guide is available as this hard copy document, on the MA's day surgery website and as a CD-ROM. It may be read sequentially, or users may wish to pick out individual sections relevant to the services their particular organisation provides.

Within each section there are references and other resources to access for better understanding of the broader applications.

Examples of practice from individual sites include contact details of people who are happy to discuss the work they have been involved in and share their experiences and learning from the processes undertaken. It is hoped this will be used as an opportunity to build a network of contacts to support the future development of day surgery services.

4. Facilities

Introduction

Day surgery services can be provided to patients in a wide variety of settings, from GP surgeries to dedicated acute hospital units. Wherever day case treatment is to be delivered, a high standard can be achieved if some basic principles are followed. This section of the guide aims to identify the key considerations for the introduction of dedicated facilities and some basic guidelines for adapting existing services.

Using patient flow as a starting template ensures the design of effective and efficient day surgery facilities. This method provides the best patient experience and proves the most cost effective for a trust. The following segments of the service will require a dedicated space and specific equipment:



Pre-operative assessment

A room with space for a treatment bed, desk, chair, monitoring equipment for vital signs, ECG recording machine, blood test equipment, either a wall mounted or portable light source, hand cleansing basin with towels or hot air dryer and display of patient information.

Admissions area

Comfortable seating for patients (a range of chair heights should be available), a reception desk with filing storage, chair, computer terminal, private space for undertaking the admissions process and completing necessary paperwork and patient examination, vital signs monitoring equipment and some form of entertainment for patients (either stereo system or television). Trusts that do not have dedicated day surgery facilities, should look at providing this type of area for all elective patients or identify an area of an existing ward that can be equipped with day surgery trolleys and recliner chairs.

Changing rooms

Segregated areas for male and female patients to change in preparation for treatment (ensuring privacy and dignity are maintained), storage for linen supplies, lockers for patients' belongings and patient toilets with an area for testing specimens and hand washing facilities.

Waiting area

Ideally, this will be a private space where patients prepared for treatment can wait on comfortable chairs, in a relaxed atmosphere, before proceeding to the anaesthetic room. On inpatient wards this could be the day room.

Treatment areas and operating theatres

Patients should walk to the treatment area or operating room. A specifically designed day surgery operating trolley should be provided to allow the patient to recline during treatment. Ventilation systems should promote airflow from the operating area outwards, to ensure clean air is pumped in and dirty air removed. Fixed or portable operating lights must be available and regularly serviced. Those areas undertaking general anaesthetic cases may require an anaesthetic room with storage for drugs, emergency equipment, routine supplies and monitoring equipment including an anaesthetic machine and piped gases with adequate scavenging systems to remove all hazardous waste gases. Sinks and scrub-up

areas should include storage for sterile equipment and cleansing material dispensers. A desk or shelf with chairs will be necessary to complete patient records and to hold the computer terminal for writing discharge summaries and post-operative instructions. An area must be identified, preferably with covered storage units, to accommodate instrumentation and disposables. A dedicated space will be required for the labelling and safe storage of specimens with lockable cupboards for materials regulated under the COSHH guidelines.

First stage recovery

Individual recovery spaces with emergency equipment for suction, oxygen and monitoring equipment will be required to facilitate supervised, safe recovery from treatment and anaesthetic. Lighting should be bright, but not glaring, and screens or curtains provided to maintain privacy and dignity. A double-locked cupboard, ideally wall mounted, is necessary for the storage of analgesia, anti-emetics, emergency and controlled drugs. Shelving or worktops for preparation of medications should be provided, and storage facilities for paperwork and disposable sundries. A sluice or dirty area and toilet facilities are also essential requirements.

Second stage recovery and discharge areas

To support relaxed recovery from treatment it is necessary to provide an area with recliner chairs, toilet facilities and emergency equipment (suction, oxygen, etc.), plus somewhere for refreshment storage and preparation, and a serving area. Lighting and ventilation should be adequate to promote comfort and safety. A private space should be identified to undertake the discharge process and space made available for storage of post-operative information for patients. Secure, locked cupboards should be included to store discharge medications. In dedicated units it is often possible to separate these two areas and separate second stage recovery and discharge. Adequate space and seating should be available for patients and accompanying relatives wherever the discharge process is undertaken. Ideally this area should be close to the clerical staff and computer terminals so that providing information to patients regarding follow-up arrangements does not cause unnecessary delays

Co-location of services

To provide the most effective service, day surgery facilities should be as near as possible to, and have regular access to, the following departments:

Pathology – to ensure regular collection of specimens and delivery of preservation materials and specimen containers.

Pharmacy – for regular delivery of medications to ensure the smooth running of a day surgery department. An on-call pharmacist should be available to advise and supply any medications not regularly stocked on the unit.

Sterile services department – to ensure minimal delays in the turn-around time for equipment. Where this is not possible, e.g. community practices, it will be necessary to purchase adequate supplies of instrumentation and supplies to undertake all planned work. Service level agreements should reflect the level of available equipment, indicating collection and delivery times to ensure delays between cases and lists are minimal.

X-ray – a radiologist should be available at all times and have portable equipment stationed on the unit, e.g. a C arm x-ray machine. Where orthopaedic surgery is undertaken the x-ray department should be within close walking distance of the day surgery facilities to ensure access to pre-operative x-rays.

Conclusion

Any health care setting can provide effective, efficient day surgery. Dedicated stand-alone facilities are the gold standard, but excellent patient experience and service provision can be achieved if patient flow is used to design services. It may be necessary to provide additional specific training for all staff to ensure the principles and processes of the day surgery model are understood and applied to the delivery of care.

Five key points to remember:

1. process design should be based on the patient journey and flow through the system from pre-operative assessment to discharge
2. all staff need to be familiar with the principles and processes of the day surgery model of care
3. day surgery facilities should be ring fenced
4. day surgery trolleys should be used for all cases (beds are acceptable for some intermediate surgery such as laparoscopic cholecystectomy)
5. day surgery facilities should be close to other relevant departments.

Good practice examples**Patients admitted through consulting rooms**

Patients have all pre-operative preparation in consulting rooms, and then walk to theatre. Trolley/recliners are only used post-operatively.

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Provision of procedure rooms for local anaesthetics – releasing DSU theatre capacity

Providing a new facility for local anaesthetic procedures and urodynamics to release capacity in theatres.

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5. Referral management

Introduction

For patients requiring day surgery, this is the first part of the patient pathway and is vital if the patient is to be guided to the right service, in the right place, as quickly as possible. Patients should not experience lengthy waits between referral and their first specialist consultation.

At this stage a patient's symptoms or condition will have been identified as requiring a further specialist opinion or investigation. The process usually begins in primary care and involves referral to a secondary care, consultant-led, outpatient clinic. It can also mean referral for diagnostic tests and therapies such as physiotherapy and, increasingly, this process also includes referrals into primary care services delivered by general practitioners with special interests (GPwSIs) or community-based nurse or therapist services.

Booking and Choice

The introduction of full and partial booking systems at the referral stage can contribute to reducing cancellation of appointments, either by the hospital or the patient. For some day surgery procedures it should be possible for the GP to agree with the patient an appointment time for pre-operative assessment at their initial consultation in primary care. For this to be successful, protocols or booking guidelines must be agreed between hospital consultants and GPs to ensure the patient is referred to the most appropriate service.



The development of Choice for patients is adding a further dimension to the referral process, allowing them to choose the service they wish to be referred to from a wide range.

Examples of how the process has traditionally worked

Although there are variations across the country, traditionally a GP sees a patient, diagnoses the condition and decides if the patient needs a referral. The GP has generally decided to which hospital and which consultant the patient will be referred.

Most referrals are sent to the hospital's patient administration or medical records services. Some hospitals operate a centralised system for managing referrals. However, in some areas referrals are still sent directly to a consultant's medical secretary. They are reviewed by the consultant and allocated a clinical priority, usually routine, soon or urgent. This determines how

quickly the patient will be seen. The referrals are then returned to the secretary, who sends them to clerical staff for appointment booking. It is not uncommon for the referral process to delay a patient's treatment.

How should the new process work?

Referral criteria

Guidance on patients to be referred can save time and effort. Structured up-to-date communication about who to refer, what to do if you do not refer, what to do in advance of referral, what information to include in the referral and where to send it to is very helpful to the referrer. Any booking guidelines or protocols need to be agreed by the primary and secondary care clinicians and regularly updated.

Generic referrals

For some specified conditions, agreed with the secondary care consultants, referrals into a speciality rather than a named consultant can allow more effective management of waiting times. It is important to set up this type of system so that patient choice is not obstructed. This process often works best where clinic bookings and waiting lists are managed centrally.

Pooling of waiting lists

This is a system where all referrals into a specialty are allocated to a generic speciality waiting list and the patient is allocated the next available slot, to whichever clinician is available. This can be used speciality-wide or for specific types of referrals or conditions. It requires agreement by clinicians to treat these conditions the same way, using the same techniques.

Screening patients

This involves undertaking basic screening or triaging of patients before they are seen in clinic. For patients referred for day surgery, this can be at the first stage of the pre-operative assessment process and can help assess their suitability for day surgery, or the most appropriate specialist to treat them. The assessment can be undertaken in many ways, using primary care, outreach nurses, the telephone or postal questionnaires. Or it may be done by the GP prior to referral, giving them the opportunity to monitor and treat any underlying co-morbidity, such as hypertension, prior to referral.

What are the main benefits?

Ensuring the patient sees the right person first time with minimum waiting has obvious benefits for patients and clinical staff. Preventing delays reduces staff frustration and allows them to see more patients.

Five key points to remember:

1. ensure full clinical and administrative engagement prior to the change
2. manage the referral process from the outset with good guidance for GPs
3. the use of generic referrals or pooled lists evens out the workload and helps get patients seen quicker
4. central management of the day surgery waiting list can support the referral process
5. aim to get the patient to the right person in the right place as quickly as possible while respecting individual choice.

Good practice examples

Direct access hernia and laparoscopic sterilisation patients

Hernia and laparoscopic sterilisation patients who fulfil defined criteria can be referred directly on to the waiting list of consultant surgeons without an outpatients' appointment. Patients attend for pre-operative assessment prior to admission.

See and treat

Direct referral by GP to a central referral for pooled See and Treat session. 'One Stop Treatment'

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ENT Nurse Practitioner Led Tonsillectomy Clinic

Patients referred for tonsillectomy are seen by a nurse practitioner, following protocols. Pre-operative assessment is performed at same time, reducing waits for consultants' outpatient clinics.

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6. Waiting and booking

Introduction

This section covers the processes by which a patient is placed on a waiting list for day surgery and how an appointment for their pre-assessment and surgery is negotiated. In order to deliver effective, patient-centred day surgery services, waiting lists need to be well managed and booking systems in place. This will help shorten waiting times and reduce cancellations.

Waiting

There should be robust administrative systems to ensure all patients suitable for day surgery are placed on a day surgery list and managed as such from the outset. Patients should be treated from the list in chronological order within clinical priorities. There should be processes in place to balance surgeons' waiting lists ensuring no patient waits longer than the target.

Booking

Patients should be able to book all elements of their pathway including their first visit, pre-operative assessment, surgery and follow-up. The target is that by March 2004 all patients scheduled for day surgery should have the opportunity to make an appointment at a date and time of their choice within one working day of referral or the decision to admit. If this is not happening already, there must be a clear plan in place for how this will be achieved.

Additionally, best practice dictates that the timing for each element of day surgery should allow the patient to plan, thereby reducing the likelihood of patient cancellation. This time may vary in length depending on the procedure being planned. Systems of booking should reduce the risk of cancellation by the hospital to a minimum for both clinical and non-clinical reasons. IT systems for waiting and booking The National Programme for Information Technology is intending to implement standardised IT systems to deliver agreed processes across the whole of the health service. For this reason any process for waiting and booking for day surgery should use the organisation's main patient administration system rather than separate, stand-alone IT systems.

Questions to ask

When assessing the waiting and booking systems in place for day surgery, answering the following questions will provide a useful starting point:

1. Can patients book a pre-assessment appointment and/or their date and time of surgery?
2. Can patients book a follow-up appointment either at the hospital or in the community?
3. Can all day surgery procedures be booked in this way?
4. Are any day surgery referrals pooled?
5. Are day surgery patients treated in strict chronological order within clinical priorities?
6. Are day surgery patients always listed using the correct code and admission method?

How the process should work

Pre-operative assessment

Once the consultant has informed a patient they require surgery, they should be able to choose to have their pre-operative assessment immediately or agree a date to come back for it.

Listed and booked

Once they have been pre-operatively assessed and found suitable for day surgery, they should immediately be placed on a waiting list and a date for their surgery agreed. If the waiting time is too long for the patient to book without an increased risk of cancellation, then consider introducing partial booking for day surgery. The patient is then contacted nearer the time of surgery and at that point negotiates a firm time and date. Calling patients in advance of their appointment or admission date significantly reduces cancellations.

Unsuitable for day surgery

Patients found to be unsuitable for day surgery, using agreed criteria, should not be placed on the waiting list. The options for managing patients deemed unfit include:

- referring back to their GP (e.g. hypertension)
- giving advice on what they can do to meet the criteria for day surgery and getting them pre-assessed again at a later date
- referring the patient for inpatient surgery, taking into account the views of the anaesthetist.



7. Pre-operative assessment

Brief description

Pre-operative assessment is the process by which a patient is medically and socially evaluated for surgery. It decides if the patient is fit enough and whether to undertake it as an inpatient or a day case. It reduces the risk of late cancellation, provides the opportunity to ensure availability of essential resources and facilitates discharge planning.

Patients want to be fully informed about their planned care. They want to be fit for surgery and anaesthetic on the agreed date. Pre-operative assessment improves the patient's experience by providing information about their planned treatment and ensures the patient has the opportunity to ask questions.

Introducing an integrated care pathway (ICP) ensures the pre-operative assessment process and its findings are communicated to all relevant healthcare professionals. Does this process need to change?

Objectives

Pre-operative assessment is a key part of the patient pathway and improves hospital efficiency. It provides the patient with valuable information about their treatment and can present them with choices about the type or the location of treatment available to them. It also provides the clinicians and their organisations with valuable information about the patient and their treatment allowing them to schedule the most appropriate care in the most appropriate place.

Work undertaken by the Operating Theatre & Pre-operative Assessment Programme demonstrated that two thirds of all cancelled operations in day surgery are made by the patient. Many of these can be prevented by implementing full pre-operative assessment including:

- time for detailed discussion with patients about their surgery
- noting requirements for admission, surgery and discharge
- allowing the patient to choose the date of their surgery.

It is important that the timing of the process is just right: enough time for the treatment to be properly scheduled and planned but not so much for the patient's condition to change enough to require different treatment.

Many trusts have found it beneficial to undertake some form of health screening at the time of listing for surgery, especially those trusts where pre-operative assessment takes place within four to six weeks of the operation.

The pre-operative assessment process requires significant expertise and knowledge and must be undertaken by a suitably qualified and trained assessor, closely linked to the service that will undertake the surgery.

If the current process does not deliver these outputs, it needs to be reviewed and improved.

How does the process traditionally work?

Many day surgery units offer a nurse-led pre-operative screening service for those patients identified at outpatients as suitable for day surgery. It often takes place within the day unit or a hospital outpatient clinic. However, in some trusts, consultants (supported by junior doctors and general outpatient nursing staff) lead these clinics. Pre-operative assessment is often booked as a separate attendance, following the initial outpatient consultation; thereby requiring two hospital visits for the patient. The consultant-led pre-operative assessment approach can result in clinics suffering cancellations due to demands from competing priorities

for doctors' time e.g. emergency admissions and notification of surgeon leave creating further delays for the patient.

Often pre-operative assessment takes place a significant period after this initial consultation, by which time the patient's condition may have changed. In some processes, anaesthetic input is not made until the patient is admitted when they may discover they are unsuitable for day surgery. This results in unnecessary cancellations that could have been avoided by better planned and organised pre-assessment.

How might the new process work?

Some of the most effective changes to pre-operative assessment have been radical. Development of a protocol driven service has made the pre-operative assessment process more consistent. Guidance on suitability of patients for day surgery can be found in the Operating Theatre & Pre-operative Assessment Step Guide to Improving Operating Theatre Performance.

In essence pre-operative assessment in day surgery should:

- ensure the patient's medical and social suitability for, and desire for, the procedure on a day surgery basis
- confirm the patient's fitness for surgery and anaesthesia, including the combined risks
- give a detailed explanation of the procedure and anaesthetic technique so that the patient is fully informed before completing the consent for operation paperwork

- provide the opportunity for discussion and explanation – minimising any anxiety or fears the patient may be experiencing and ensuring they fully understand the proposed procedure
- facilitate the sharing of information, both written and verbal, on the pre-operative process, the planned procedure and any specific pre-operative instructions, e.g. fasting or bowel prep.
- identify special requirements for the surgical procedure, e.g. instrumentation or equipment
- provide an opportunity to discuss general health advice, e.g. smoking cessation or weight loss
- identify any cultural requirements or special needs
- assess the support available to the patient in the post-operative phase and highlight any special requirements to facilitate prompt discharge
- facilitate arranging a mutually suitable date for the surgical procedure to be undertaken.

When should it take place?

An initial pre-operative assessment should take place immediately following the decision to operate – essentially a one-stop service. If this is not possible then the patient should complete a health-screening questionnaire before leaving the outpatient department. This will ensure patients suitable for day surgery are correctly listed and those with medical conditions requiring further treatment are identified early and referred for the appropriate investigations.

Where general practitioners are booking directly onto operating lists, the pre-operative assessment could occur in primary care according to agreed protocols.

Early pre-operative assessment reduces the peri-operative workload of anaesthetists. It ensures patients are fully investigated and that only those requiring an anaesthetic opinion are referred and that others are informed and fit for their procedure.

Where should it take place?

Pre-operative assessment can be undertaken in a variety of ways – during a face-to-face interview in primary or secondary care, by telephone or by a written questionnaire. Whichever method is chosen, it must be convenient for the patient, appropriate for the particular procedure and comprise all the essential elements. If there is no direct contact, other methods of obtaining factual data such as blood pressure, height and weight will be necessary. Consulting and examination rooms should be equipped with blood pressure monitors, an electrocardiogram machine and phlebotomy equipment to facilitate full pre-operative assessment.

Changes in referral patterns and the introduction of electronic booking systems have led to the development of pre-operative assessment by nurses or GPs. These do not require the direct involvement of a consultant or an anaesthetist in secondary care and eliminate the need for the patient to make multiple hospital visits prior to their admission date.



Other services have been developed in which the first consultation in outpatients and the pre-operative assessment are undertaken at the same time, with the patient being booked and given a date for surgery at this attendance.

In trusts with a dedicated day surgery unit (DSU), pre-operative assessment can be organised and delivered within it, either on the day of the initial consultation or at a later, pre-arranged date. This allows the patient to see where they will be treated, while meeting and getting to know the dedicated multi-disciplinary team that will manage their care.

Who should perform pre-operative assessment?

A trained and competent assessor should perform pre-operative assessment. The practitioner must be able to perform and order basic investigations and make referrals according to locally agreed guidelines.

Each trust should ensure that there is a process in place to facilitate referral to an anaesthetist, should patients with identified health issues require it.

Pre-operative assessment can be undertaken successfully in a wide range of settings across the health economy, from GP practices to acute trusts, and a variety of ways including:

- written questionnaires
- telephone assessment calls
- face to face assessment.

Anaesthesia

The link between anaesthesia and pre-operative assessment is very important. Careful planning and delivery of anaesthesia is needed for the patient to undergo surgery safely, with the minimum discomfort and distress. Poor pain control and post-operative nausea and vomiting (PONV) are often the cause of a patient's transfer to inpatient status.

In the past patients may have attended on the day of their surgery, without pre-operative assessment. Anaesthetists were rarely involved until the patient's admission - too late to do any anaesthetic planning. The result was often un-scheduled inpatient stays and cancellations - distressing and inconvenient for patients and a waste of theatre resources.

Considerable work has been done around pre-assessment and its benefits. This has encouraged an active approach to identifying the most appropriate methods of anaesthesia and analgesia for each patient.

It is possible to minimise problems caused by patients being unfit for anaesthesia, including cancellations and unscheduled overnight stays due to PONV or poor pain control. Pre-operative assessment at a nurse-led clinic, supported where necessary with access to advice and support from an anaesthetist as described above, will do this.

This practice could also identify the most appropriate facility for the patient to attend on the day of the procedure. The list includes:

- inpatients
- a day surgery unit
- outpatients
- a treatment centre
- a community facility.

Where they attend, will depend on the services and facilities currently available in their local health community.

Guidelines should be developed for anaesthesia, pain control and the use of prophylactics, such as anti-emetics, to minimise the risk of PONV. New techniques, anaesthetic agents and pain relief drugs are constantly being developed to speed induction and recovery. These should be included in protocols.

Patient-fasting regimes need to take account of the adverse effects that extended patient fasting can cause.

Barriers to change:

- lack of support from senior management
- resistance by medical staff
- difficulties in identifying a lead clinician for the pre-operative service

- lack of agreement on local policies for acceptance criteria and requesting or ordering further investigations
- inadequate funding for advanced training of practitioners
- inappropriate or inadequate facilities
- financial restrictions within primary and secondary care
- difficulty in staff recruitment and retention
- poor patient information
- booking infrastructure does not support choice of appointment
- IT systems do not capture the required data to monitor cancelled operations
- inability of IT system to schedule theatre lists
- no team approach across the trust – especially relevant for trusts on more than one site and those post-merger
- reluctance to enhance clinical roles – e.g. healthcare assistants and nursing assistants performing phlebotomy.

A training package for the role of advanced practitioner in pre-operative assessment is available from www.modern.nhs.uk/daysurgery.

The Operating Theatre & Pre-operative Assessment Programme and Southampton University have designed a national learning tool for practitioners working in the pre-operative assessment field. Setting a Standard through Learning is a comprehensive training manual accompanied by a CD-ROM. There are also benefits to viewing pre-operative assessment using a whole-systems approach. Use the Operating Theatre & Pre-operative

Assessment Programme Step Guide to Improving Operating Theatre Performance and Guidance for Pre-operative Assessment to facilitate this. Copies are available on the website www.modern.nhs.uk/theatreprogramme.

Measurement and benefits
In order to ensure that you understand the impact of any changes you make and whether they have been successful it is important to measure before, during and after changes are made to the process.

Key measures include:

- reduction in DNAs for pre-operative assessment
- reduction in cancelled operations due to the patient being unfit for surgery
- patient satisfaction.

The interim guidance from the NHS Modernisation Agency Theatre Project – Tackling Cancelled Operations Manual and CD-ROM - provides a system for capturing data on pre-operative assessment and cancelled operations. (Available from the website www.modernnhs.uk/theatreprogramme)

The National Good Practice Guidance on Pre-operative Assessment for Day Surgery provides a comprehensive summary of the elements that should be measured. Five key points to remember:

1. be clear about objectives of any pre-operative assessment process
2. ensure all key stakeholders, including primary care, are involved in designing any changes

3. consider the impact of any changes on the rest of the patient pathway
4. ensure senior management and clinicians are engaged in any change process
5. establish the baseline position and measure the impact of any changes made.

Good practice examples

One stop pre-operative assessment service

Facilitates pre-screening/assessment of patients at out-patients' visit.

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Pre-operative assessment hypertension protocol and pre-operative assessment clinic patient information

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www.modern.nhs.uk/theatreprogramme

Nurse-led pre-operative assessment service

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8. Admission and surgery

Introduction

The patient's experience of day surgery can be strongly influenced at this stage of their pathway. A welcoming, confident, professional approach will reduce the anxiety that anyone about to undergo surgery undoubtedly feels. The admission process should place the needs of the patient at its centre.

Admission process

Admission processes vary from organisation to organisation, depending on whether the patients are admitted to a dedicated day surgery unit or an inpatient ward. On arrival a receptionist or ward clerk normally checks the patient's demographic details, and a nurse the medical and social information they completed at pre-assessment. The surgeon and the anaesthetist often see the patient to mark the operation site and complete the consent form. In some cases, junior medical staff may do this. This can all be completed in dedicated facilities, but may occur by the patient's bed or trolley. The time required will depend on the level of pre-operative assessment before admission. Leaving pre-operative assessment to the admission stage is likely to result in increased cancellations due to patients being unfit for surgery.

In some organisations, all the patients on an operating list may be admitted at the same time: a practice that can result in long waits. Patient experience audits have identified the length of time patients have to wait between admission and surgery as an area of concern. See From Beginning to End: An audit of



the patient's experience of Day Surgery, Malster, RMJ, et al., Journal of One-Day Surgery, 1998:7 (4).

If the average elapsed time between admission and surgery is longer than two hours then the admission processes should be examined and redesigned.

Pre-operative administration

During their pre-operative assessment the patient should have received detailed, written information about where to come and what to bring with them. Their notes and x-rays should be readily available and have been checked to ensure that all paperwork is complete and test results included.

Consent

Ideally, the process of patient consent should start in outpatients or pre-assessment. Giving the patient the paperwork to take home to read and bring back on the day of surgery ensures they have sufficient time to consider the implications of the procedure.

Admission times

Staggered admission times should be instigated wherever possible to reduce the length of time the patient must wait between admission and going to theatre. This is more easily achieved in dedicated day surgery facilities, however, with careful planning it should be possible wherever the patient is admitted. The surgeon and the anaesthetist can break mid morning or mid afternoon to see the next patients.

A booked-admissions process and good pre-operative assessment minimise DNAs and cancellations, and allow staggered admissions without disruption to the operating list.

Admission area and waiting

There should be a dedicated admissions area, with a consulting room, where the admitting nurse and medical staff can see patients in privacy. A receptionist should welcome the patient and their carers, and check their demographic

details. The admitting nurse should ensure there have been no oversights at pre-assessment or recent changes in health and social circumstances. They should record a baseline blood pressure and confirm that instructions (such as fasting) have been followed.

The surgeon and the anaesthetist should see the patient before their operation, but with good teamwork, pre-assessment and admission processes, this need not be time-consuming because the patient will be fully prepared.

It is advisable to leave patients in their own clothes and sat in a waiting area, with their carer, until it is almost time to go to theatre. This keeps anxiety levels at a minimum. The patient should change into an operating gown before walking to theatre.

Five key points to remember:

1. ensure a welcoming, professional approach
2. make sure all documentation is prepared before the patient's arrival
3. stagger admission times to reduce patient waiting
4. do not ask patients to change into operating gowns too early
5. most patients can walk to theatre.

Surgery

To ensure safety remains paramount all patients must receive the appropriate surgical intervention in a fully equipped, clean environment. To safely deliver the process, good communications, planning, and appropriately qualified and trained staff are essential.

Dedicated facilities

Traditionally, in the absence of dedicated DSUs, day surgery has been delivered in facilities shared by inpatients. However, unless carefully managed, this system can hinder the effective development of day surgery. For example, if mixed lists of day surgery and inpatient elective patients over-run this may result in recovery times being too short to allow the day surgery patients to go home, necessitating unscheduled overnight stays. Consequently, many trusts have separated all or some of the day surgery process from inpatient facilities. In trusts where this is not yet possible day surgery cases should be placed at the start of lists.

Dedicated instruments

When services have been separated, surgical instruments are sometimes shared between inpatient and day surgery theatres. This can result in delays and cancellations to either or both services. Consider instrumentation dedicated to the day surgery service. If this is not possible, schedules from all the user services should be shared with the HSDU in a timely way. The HSDU needs to have robust management systems to ensure instruments are in the right place in good time. Clearly, the HSDU must have adequate resources if it is to maintain services.

Transportation to theatre

The traditional way of transporting patients to theatre has been by bed or trolley. Whilst this is still a necessity for some inpatients, it is not usually for day cases, who are generally fit and healthy. There is evidence that day case patients prefer to walk to theatre. If they did wherever possible, it would speed up the process and reduce manpower requirements.

Scheduling and performance monitoring

Good pre-operative preparation is key to ensuring a smooth and efficient process on the day of surgery. It ensures that patients are not cancelled because they are unfit on the day or equipment is unavailable. Scheduling of all day lists against individual surgeon's list templates will maximise theatre session capacity. Collection of data, such as theatre list start and finish times, will measure and monitor performance and efficiency can be improved by altering templates accordingly.

Local anaesthetic procedure

Some local anaesthetic procedures, not requiring a fully equipped theatre or anaesthetist, should be performed in outpatients or a community setting. This frees capacity to transfer day cases from inpatient theatres to dedicated day surgery facilities. These changes also free capacity in inpatient theatres, which in turn improves inpatient waiting lists.

Patient involvement

Offer the patients choice in how they get to the theatre. A patient walking to theatre improves efficiency. Involve patients in the processes they are centre to; it enables the patient's perspective to be built into the process. When services are redesigned, they should aim to improve the patient's experience, as well as improve performance. All changes should be tested using proven redesign methodology.

Five key points to remember:

1. consider moving local anaesthetic procedures to a more suitable location such as outpatients or the community
2. consider which procedures traditionally carried out as inpatients could now safely be performed as day surgery
3. anaesthetic input is essential to pre-assessment services
4. implement best practice guidelines for anaesthesia and post-operative pain management
5. all day operating lists will maximise theatre session capacity.

Useful sites:

www.modern.nhs.uk/improvementguides

www.aagbi.org

www.bads.uk

www.modern.nhs.uk/daysurgery

Good practice examples

Walk in, walk out carpal tunnel service

A walk in, walk out service for patients undergoing release of carpal tunnel syndrome with surgery performed by orthopaedic surgeons.

Contact:

Sister Sue Brandom
Day Surgery Unit
Wycombe General Hospital

Tel: 01494 426466

Nurse-led medical termination of pregnancy service

Contact:

Helen Lloyd
Operational Nurse Manager
Norfolk & Norwich University
NHS Trust

Tel: 01603- 286002

E-Mail: Helen.Lloyd@nuh.nhs.uk

Day case shoulder arthroscopies

Contact:

Diane Sheffield
DCU/ACDU Manager
Kettering General Hospital

Tel: 01536 492163

Email: diane.sheffield@kgh.nhs.uk

Guidelines for patients to manage diabetes on as day cases

Contact:

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Day Surgery Unit
St Richards Hospital
Royal West Sussex NHS Trust

Tel: 01243 788122 Ext 3654

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9. Discharge

Brief description

Discharge is defined as the point at which an appropriately qualified person has assessed the patient as suitably recovered to leave the hospital and return to their home environment. It is important that patients are discharged as soon as it is safe, and that they leave with an understanding of their ongoing support.

How can discharge be improved?

Traditionally the surgeon or a junior doctor has undertaken discharge, following the completion of the operating lists. Patients can sometimes wait unnecessarily, leading to blocking of space or beds, and possibly distressing patients who are anxious to return home. In recent years many organisations have developed nurse-led discharge processes to complement the medical input and avoid delays.

Patients can also be delayed, waiting for pharmacy to dispense required drugs. This can be overcome by agreeing drug packs in advance.

It is essential for patients to receive information on their procedure and recovery process. This should include details of relevant signs and symptoms of potential complications, instructions as to whom they should contact if problems arise and how they should manage their recuperation. Information on pain relief is also important and can help prevent unnecessary calls to GPs or return visits to the hospital.

The processes that will make the change:

- changes need to have full support across organisations and professions
- involve all relevant stakeholders within your organisation, including medical, nursing and pharmacy staff, in the development of any policy and protocols
- engage GPs with discharge arrangements, acknowledging any reservations they may have
- agree patient information to be given at pre-assessment and discharge and ensure it is audited and regularly reviewed
- agree the emergency contact procedure for patients following discharge and ensure written information is provided
- agree protocols for pre-packed, take-home medication
- introduce nurse dispensing or pre-ordering of take home medication to prevent delays to discharge. Working with pharmacy using a patient group directive (PGD) will help this. [Definition: A PGD is a written direction relating to the supply and /or administration of a prescription only medicine to persons generally.] A doctor, dentist or pharmacist must sign a PGD. See www.groupprotocols.org.uk for examples of PGDs
- develop protocols with pre-operative assessment staff so the patient has all the relevant information to arrange appropriate transport home and confirm arrangements at admission.

How should the new process work?

The new process ensures patients are fully briefed regarding the discharge process at their pre-operative assessment. All day surgery facilities should have nurse-led discharge policies in place using an agreed protocol. The patient is discharged following day surgery as soon as it is safe. The discharging nurse provides high quality written and verbal information, including details of pain control and emergency contact details. All patients receive take-home medication on discharge with information on managing their pain. The patient's transport and escort is confirmed on admission to ensure a swift discharge and they will know whom to contact in an emergency situation.

Five key points to remember:

1. discuss discharge as early in the process as possible
2. involve clinicians in policy development
3. engage pharmacy to develop take-home medication systems
4. ensure the patient knows well in advance to arrange transport and an escort
5. provide consistent high quality information.



10. Follow-up

Introduction

Follow-up is the review of a patient's recovery and general health following surgery. It usually involves a face-to-face appointment with a hospital doctor or GP, but it could be a nurse. It can take place in the community, a hospital's outpatients' department, or sometimes over the telephone.

For patients who have had day surgery, the primary purpose of follow-up is to confirm their satisfactory recovering and to identify any post-procedure complications.

Follow-up of a patient's condition will aid smooth recovery and provide continuing care. Information gathered during the follow-up process can be used to audit services provided to patients, review outcomes of surgical intervention and improve overall patient satisfaction. The on-going care reassures the patient and their carers.

It is essential for every organisation to regularly review their follow-up process and that only patients requiring a review by medical or nursing staff are recalled to the hospital. Inappropriate follow-up appointments increase waiting times, add another journey to the hospital for the patient and are a waste of valuable resources.

Inadequate follow-up can lead to increased risks of undiagnosed post-operative complications and poor patient outcomes. Follow-up care for many day surgery patients, e.g. those who have undergone hernia repair, should be agreed as part of the shared care between secondary care consultants and primary care GPs. Other conditions, or groups of patients, should be followed-up to agreed procedures and protocols designed by the responsible clinical team. When new procedures are undertaken as day surgery, the follow-up procedure provides an audit trail to monitor success.

Changing approaches to follow-up

Traditionally the location and timing of follow-up processes has varied considerably. The Government's introduction of clinical targets has necessitated the review and assessment of follow-up processes. This review process has changed the traditional approaches to follow-up and, in appropriate cases, the responsibility for the clinical review has moved from the acute setting to primary care: e.g. the follow-up of post hernia repair patients. The healthcare professional undertaking the review has also changed, with many nurses undergoing advanced training to take on this responsibility,

e.g. initial follow-up and dressing changes for post-cataract patients. Medical staff have used evidence-based research to identify cases where follow-up is not routinely required, e.g. minor ENT procedures. And in these cases the patients are given written and oral advice on the signs and symptoms of potential complications plus a contact if they experience post-operative problems. This replaces the need for a follow-up appointment.

What process might you go through to make the change?

All key stakeholders must be actively involved in any change to the follow-up process; this includes secondary and primary care clinicians, nurses, managers and administrative staff. Where changes are made it is essential that protocols and procedures be developed to clearly indicate which cases require follow-up and who takes direct responsibility for patient care. Capacity and demand data should be used to predict the outcome and potential gains achieved by changing the follow-up process. Reducing the number of patients requiring follow-up can free capacity and reduce waiting times, while preventing unnecessary hospital trips for patients.

When a different healthcare professional undertakes follow-up, it will be necessary to ensure the correct training packages and competency guidelines are in place prior to the handover of care.

Barriers to change

To promote service changes it is imperative that clinicians agree clearly identified lines of accountability for patient care. Consultants will need to be assured that patient safety and clinical care remain of the highest possible standard and will not be compromised in any way. The clinical risk team can do this by identifying potential risks and implementing corrective measures.

Detailed research into the impact of changes to the follow-up process will identify the impact of any movement of patient care on the workload and financial resources of GP and community services. The hospital data collection and performance team should be able to demographically predict any impact and provide valuable information to facilitate planning the allocation of financial resources.

Audit trails and feedback

mechanisms must be designed to ensure the communication of surgical outcomes and adverse events are shared throughout the whole health community.

How should the new process work?

As discussed in the Discharge section, it is imperative that all patients receive up to date information on their procedure and recovery process. Written and oral information must include details of all potential complications, including relevant signs and symptoms. Day surgery patients should be given a telephone number to call should they experience any post-operative

problems in the first 48 hours, and the day surgery staff should telephone on the evening of discharge, or the next day to ensure they are comfortable and confident in the home setting.

Although there are examples of effective systems across the country, one size does not fit all and the type of service and dynamics of the local health system must be considered. Neither is one specific type of follow-up effective for all patients. A combination of follow-up systems may be most appropriate. Follow-up care can be undertaken in a variety of ways, including the following:

Telephone follow-up

This is undertaken between 24 and 48 hours after surgery, usually by day surgery nursing staff. It involves a scripted series of questions about the patient's status, including pain scores, and provides the opportunity to answer queries and give advice. Its main benefit is the reassurance and support given to the patient from a trained healthcare professional. From the service perspective, this is a relatively cost-effective method of follow-up needing limited facilities and minimal staff time.

Patient surveys

Patient surveys are a useful tool in monitoring levels of satisfaction and identifying areas for service improvement. Any questionnaire must be carefully designed to elicit the correct information from patients if it is to provide a means of improving the overall patient experience. Questionnaires can be undertaken in a number of ways; given to patients on discharge, by

post or by telephone. Results from surveys should be analysed and acted on by the day surgery medical and nursing staff and patient representatives

Community based follow-up

The community care team, including GPs and community nurses, is providing an increasing range of follow-up care for patients at community hospitals, GP surgeries and the patient's home. Where this service is available, there must be written agreement on the lines of accountability, plus policies and protocols to assess and address clinical risks.

Some day surgery units have locally agreed procedures to refer patients to community nurses for an evening telephone call or visit, e.g. laparoscopic cholecystectomy patients at the Bristol Royal Infirmary have a follow-up visit with the community nurse, arranged by the day surgery staff, on the evening of discharge and again the following morning.

Outpatient follow-up

Some patients will need to return to the outpatient department, particularly for diagnostic procedures. Day surgery admission may have been part of a comprehensive package of care, e.g. in investigating patients for infertility or reconstructive plastic surgery. Where a return to secondary care is appropriate, the patient should be given a suitable appointment with adequate notice to ensure attendance. Patients should be informed of the follow-up arrangements in advance of treatment. At this appointment the

clinical team will assess the general recovery from surgery and identify any further treatment needs.

What are the main benefits?

- Effective and efficient follow-up procedures will reduce the incidence of post-operative re-admission and ensure that secondary and primary care resources are used appropriately.
- It increases patients' confidence and provides vital reassurance by ensuring there are clearly defined lines of communication for the provision of continuing care.
- Clinical teams benefit from the ability to assess and audit surgical outcomes and measure the success in the shift of cases to day surgery.
- Questionnaires and surveys provide an ongoing measure to assess service provision and patient satisfaction, and facilitate improvement planning where necessary.

Five key points to remember:

1. patients must be given an emergency contact number on discharge
2. all patients should be telephoned 24 to 48 hours after discharge
3. follow-up must be both cost and clinically effective
4. all stakeholders must be involved in the detail of the change
5. one size seldom fits all; the change must be appropriate to the local service provision.

Good practice examples**Cessation of routine follow-up of patients following post-nasal surgery**

Patients receive good information and a contact number for a specialist nurse practitioner, reducing waits for the consultant outpatient clinics.

Audiology led grommet follow-up clinic

A clinic for routine follow-up of children who have had grommets inserted. Strict protocols are established using out of hours so children do not miss schooling. It has reduced waits for the normal consultant clinic.

Contact:

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Consultant ENT Surgeon
Blackburn Royal Infirmary

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Email:

Valerie.wood@mail.bhrv.nwest.nhs.uk

Post-discharge telephone call service

All patients who have undergone general anaesthesia are telephoned next day to review progress and discuss issues. Protocol used to support telephone conversation.

Contact:

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NHS Trust

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11. Children

Introduction

Treating children on a day case basis has been established practice for many years. Day surgery offers an opportunity to minimise the disruption a surgical procedure causes, allowing children to return quickly to their families and familiar surroundings.

Day surgical services for children are currently managed in a variety of ways, depending on the facilities, the number of children admitted and the availability of Registered Sick Children's Nurses (RSCN). They may also differ between specialties within a trust. Processes need to change if recommended quality standards are not being achieved for any group of children having day surgery. This section describes how paediatric services might be organised.

How should the new process work? The publication of a report in 1991 – Just for the Day, Thornes, and R. NAWCH Publications, 1991 – described quality standards for paediatric day surgery.

The report suggests that whenever and wherever a child (under 16 years) is admitted as a day case, the concept of a planned package of care is adopted. It recommends it should contain the following standards, which might be used as quality standards in NHS contracts. Despite the age of the report, these quality standards are still relevant today:

1. the admission is planned in an integrated way to include pre-admission, day of admission and post-admission care, and to

- incorporate the concept of a planned transfer of care to primary and/or community services
2. the child and parent are offered preparation both before and during the day of admission
3. specific written information is provided to ensure that parents understand their responsibilities throughout the episode
4. the child is admitted to an area designated for day cases and not mixed with acutely ill patients
5. the child is neither admitted nor treated alongside adults.
6. identified staff, specifically designated to the day case area, care for the child.
7. medical, nursing and all other staff are trained for, and skilled in, work with children and their families, in addition to the expertise needed for day casework
8. the organisation and delivery of patient care are planned specifically for day cases so that every child is likely to be discharged within the day
9. the building, equipment and furnishings comply with safety standards for children
10. the environment is homely and includes areas for play and other activities designed for children and young people
11. essential documentation, including communication with the primary and/or community services, is completed before each child goes home so that after-care and follow-up consultations are not delayed

12. once care has been transferred to the home, nurses trained in the care of sick children provide nursing support, at a doctor's request.

Dedicated sessions

With the increase of medical specialisation in paediatric care the organisation of children's day surgery has made it easier to address the above quality standards. However, in some specialties and some trusts, there may be insufficient children to treat on a dedicated paediatric-operating list. If this is the case, it is better to organise more infrequent paediatric lists and book children in to those sessions. A paediatric list every four to six weeks is preferable to mixing the occasional child in with adults on routine lists. This will also make better use of paediatric anaesthetists' time as well as maximising RSCN skills.

Surgeons with a special interest

It should be the norm, that each specialty undertaking the day surgery of children should have designated surgeons with a special interest in the care of children. Best practice is for children to be automatically transferred to the care of these specialists. These clinicians should form a team with RSCNs and others to ensure the children's pathway and care is appropriate, and to monitor compliance.

The care of children undergoing day surgery should be consultant based. This applies equally to surgeons, and the anaesthetists. However, it does not preclude the opportunity for medical staff to be trained on these lists, though this should be under the direct supervision of a consultant.

Many day units have developed as freestanding, and are at a distance from main theatres. Under these conditions, whenever children's lists are taking place, a consultant anaesthetist with a special interest in children's anaesthesia should be immediately available in the day unit and, ideally, in charge of the anaesthesia for the children's list taking place.

In large units where paediatric day case lists are frequent, RSCNs may be part of the day surgery workforce. In smaller units this may not be possible, though it can be addressed by negotiating with the paediatric wards for cover when children are in the unit. The individual providing that cover should be familiar with the day surgery routine.

If there are a high number of children's day cases, they will benefit from a play specialist. The play specialist can build a rapport with children and their parents, escort them to theatre and carry out needle-play with those needing intravenous induction of anaesthesia.

Children's pre-admission

In some units pre-admission visits have been designed specifically for children. These are often held on Saturdays. The children may be pre-assessed at this time, but they also have the opportunity to become familiar with the facilities, toys, operating gowns, staff etc.

Five key points to remember:

1. separate adults and children and keep day cases away from acutely ill patients
2. ensure all staff involved with children receive in-house training in paediatric day surgery
3. organise operating lists dedicated to paediatric day cases
4. provide a child friendly environment
5. involve the parents at each stage of the process to ensure that they are fully informed.



12. Measurement

Introduction

It is important to measure the performance of day surgery services; both in terms of general ongoing performance and within the context of measuring overall trust performance. Measurements should include the achievement of national and local day surgery targets and quality outcomes for patients. It is also important to measure the impact of specific improvements made to a service as it develops. Measurement of both activity and outcomes will provide information for patients, GPs, the day unit, surgeons, anaesthetists, and trusts.

Quantitative Measures

There is a range of quantitative measures to help understand how the organisation is performing in relation to day surgery services. Examples of these are set out in the table opposite.

Definitions

In designing measurements it is important to ensure consistent definitions are applied to key terms. Also, where appropriate, national definitions should be used to allow realistic performance comparisons with similar organisations. Examples of some useful definitions are set out below.

Day surgery

The NHS Plan envisages 75% of all elective surgery carried out on a day case basis by 2005. This includes all elective day cases including endoscopies and medical interventions.

Table 1 – Quantitative Measures of Performance

<ul style="list-style-type: none"> Overall day case activity 	<ul style="list-style-type: none"> Cancellation rates – when? why? by patient? by hospital?
<ul style="list-style-type: none"> Proportion/number of basket of 25 procedures done as day cases 	<ul style="list-style-type: none"> Pre-assessment – those patients deemed not suitable for day surgery
<ul style="list-style-type: none"> Length of day surgery waiting lists 	<ul style="list-style-type: none"> Unplanned admission – anaesthetic, surgical, social with reason
<ul style="list-style-type: none"> Number of patients booked 	<ul style="list-style-type: none"> Readmission with in 30 days - with reason
<ul style="list-style-type: none"> Theatre utilisation (as specified by MA Theatre Programme) 	<ul style="list-style-type: none"> Critical incidents
<ul style="list-style-type: none"> DNAs 	<ul style="list-style-type: none"> Complaints/compliments

The definition of day surgery is critical and impacts on all information produced.

“Day surgery is the admission of selected patients to hospital for a planned surgical procedure, returning home on the same day. True day surgery patients are day case patients who require full operating theatre facilities and/or a general anaesthetic, and any day cases not included as outpatient or endoscopy”.

Day Surgery: Operational Guide, DH, August 2002.

The ‘basket of 25’

Since 1990, the Audit Commission has carried out a regular review of day surgery. To overcome the variability of procedures included, the scope of analysis was limited by defining a ‘basket’ of day surgery operations. The basket has been refined over the years to reflect advancements in techniques. Performance against the ‘basket of 25’ has become a key indicator of success that is now accepted and nationally applied.

‘Trolley’ procedures

The British Association of Day Surgery (BADs) produced a more challenging list of additional procedures called the ‘trolley’, also used to benchmark national day surgery performance.

Internal analysis

Many trusts have carried out their own analysis using the definitions set out above to assess the quality of data they collect and help them benchmark against similar organisations. Some trusts have used independent companies such as CHKS and Newchurch to undertake this initial analysis for them.

Datasets

Most data on day surgery is collected using patient administration and theatre systems. At present some organisations have separate booking systems, though these are likely to be replaced with the imminent introduction of the national Electronic Booking System.

Using a standard data set can enhance measurement. BADs, in conjunction with the Modernisation Agency, is in the process of producing a minimum data set to measure aspects of quality in day surgery. It will be included within future versions of this guide.

Clinical coding

Timely and accurate clinical coding for day surgery is essential in measuring performance. It helps measure the surgery performed and monitors the proportion of surgery undertaken as day cases. Clinical coding can also help identify patients who have been placed on a waiting list using an incorrect admission method.

- The clinical coding function within secondary care has traditionally provided the organisation with codified information about the presenting symptoms, diagnosis and treatment of patients; normally using the International

Classification of Diseases (ICD) coding. [Reference HES Fact sheet Diagnosis Coding (ICD-10)].

- The Office of Population Census and Surveys (OPCS) classification for treatments and procedures is used for coding presenting symptoms and diagnoses in accordance with NHS guidelines for data capture from acute trusts.
- In some organisations the Read Classification is used - a unified system covering symptoms, diagnoses and procedures defined by clinicians. Read is the favoured classification of primary care.

Inaccurate or incomplete coding can give a misleading picture of the activity in various areas of clinical practice, preventing clinicians and managers from correctly diagnosing problems in practice.

How should it be organised?

A timeframe for coding completion should be agreed with the clinical coding department. Work must be undertaken with clinical colleagues to ensure that operating notes contain adequate documentation and are completed as soon after surgery as possible. This will aid the accuracy of the coding.

In some hospitals, in agreement with the coding department, staff within the day surgery team are trained to undertake coding. Ultimately, IT systems within theatre are allowing organisations to work towards coding at source by the operating surgeon or other member of the clinical team within theatre.

Performance reports must be regularly disseminated to key stakeholders to address inaccuracies in data. The reports, used as a management tool, highlight areas where improvements to the service can be made. In summary clinical coding to support day surgery should meet the following minimum requirements:

- the day surgery procedure should be coded as the primary or secondary procedure so it is identified correctly when measuring activity
- coding should take place as soon as possible following surgery but no longer than two weeks after a patients’ discharge
- coding should provide enough detail to explain why patients have remained in hospital
- coding should be done locally; within a DSU if possible.

Qualitative measures

It is important to ensure that qualitative as well and quantitative measures are used to assess the performance of day surgery services. Day Surgery: Report by the Day Surgery Task Force, [NHS Management Executive, 1993], recommends locally based quality audits. They should be relatively short-lived, avoid being overly ambitious and should concentrate on different aspects each time they are undertaken. For example these could include the following areas:

- patient satisfaction
- staff satisfaction
- pain control
- post-operative nausea and vomiting.

The information collected should be circulated within the trust as a management tool. It should also be available for audit and clinical governance meetings.

What are the main benefits?

The main benefits of having accurate, relevant and timely information are in monitoring activity and assessing the quality of patient care. It enables the trust to celebrate success at the same time as prioritising areas where improvements can be of greatest benefit. It can improve patient outcomes, release inpatient capacity and achieve the levels of day surgery contained in Local Delivery Plans.

Five key points to remember:

1. ensure information is accurate, relevant and timely
2. make information accessible to all stakeholders
3. celebrate success as well as prioritise areas for improvement
4. measure all day surgery activity across the trust, irrespective of location
5. benchmark against similar trusts.

Further Reading

Day Surgery Operational Guide, DH, 2002

Day Surgery. Report by the Day Surgery Task Force, NHS Management Executive, 1993

Measuring Quality: The Patient's View of Day Surgery, Audit Commission, HMSO, London, 1991

13. Theatre utilisation and scheduling

Brief description

To achieve NHS plan targets for waiting, booking and choice trusts must ensure their operating theatres are optimally utilised. Monitoring of theatre utilisation and ensuring facilities and resources are optimised will assist trusts in providing appropriate and timely care.

Effective scheduling will ensure that the maximum numbers of patients are treated, which will reduce waiting times and maximise the potential of day surgery facilities. Scheduling lists effectively also increases patient and staff satisfaction by eliminating uncertainty, helping shifts to start and finish on time, and preventing erratic work patterns.

Theatre utilisation is recorded as the percentage of available funded theatre session time and resources being used to treat patients.

To measure utilisation accurately anaesthetic start times and operation finish times should be recorded.

These are the time the patient enters the theatre for a local anaesthetic or the needle to skin time for a general anaesthetic, and the time the patient leaves the operating theatre, post procedure.

To ensure optimum use of resources theatre utilisation of 85 – 90% is normally recommended. This allows for natural variation in a system and preventing overruns, so assisting in the reduction of cancelled operations.



Examples of how the process has traditionally worked

There is wide spread variation in availability of theatre utilisation data. Individual trusts' ability to collect data is often determined by available IT systems. Where IT systems do not support data collection a manual process is used. Manual systems, whilst adequate, often prove problematic: when there are time delays in the recording of information the potential for inaccuracy increases.

Failure to recognise the need to effectively match capacity to demand inevitably leads to poor utilisation and ineffective scheduling. Scheduling for operating lists has often been undertaken on an historical basis, e.g. Mr X always does six cases so six cases are booked onto his list. While this system might sometimes work, there is the potential to over and under book lists, causing poor utilisation of resources.

Many different processes exist to schedule lists involving different staff groups, including consultants, nurses, secretaries and booking clerks. Ineffective scheduling can increase cancelled operations by failing to ensure essential resources are available in the right place at the right time. Notification of leave policies have introduced more certainty for patients by ensuring that procedures are booked six to eight weeks in advance.

Theatre utilisation

Initially a review of IT systems is necessary to establish what data is available and whether it is in a usable format. Where the IT system does not support collection of utilisation data, a manual system will need to be designed and introduced.

Data collection

First steps will include the clear communication of start and finish times for lists and the production of a written policy to support this. The patient pathway should be process mapped to identify constraints and bottlenecks, and basic capacity and demand studies need to be undertaken. Day surgery capacity should be easy to predict as there is set availability of trolley spaces.

Managers and senior medical and nursing staff must have a clearly defined path for the sharing of collected data and a formulated action plan to address any issues. Monitoring of data needs to be continuous, using statistical process control. Poor utilisation needs to be quickly identified and appropriately addressed.

Policies and procedures

There should be well-defined policies to manage the formulation, cancellation and re-allocation of theatre lists, as well as a leave policy to ensure at least six weeks' notice of planned leave for essential staff such as surgeons and anaesthetists. These policies will facilitate forward planning for the theatre department, enabling staff to ensure maximum use of available resources whilst meeting the activity and performance targets for the trust.

Scheduling

To introduce efficient scheduling it will be necessary to first establish procedure times. This information may be available through the theatre IT system or it may be necessary to collect it manually.

Procedure times

Where the IT system provides times the 80% rule should apply. This is the maximum time it takes an individual surgeon and anaesthetist to perform a procedure 80% of the time. Once basic timings are identified, a list template should be designed to ensure optimum use of the available funded operating session time. If manual collection of data is too time consuming, use a process where points are allocated to procedures and a template for operating lists designed.

Mixed lists

Where there are mixed lists of day cases and inpatients, several basic rules need to be applied. Day surgery cases should be booked early in the session to facilitate same-day discharge and local anaesthetic cases should be booked towards the end of the list (this latter rule also applies to dedicated day surgery units).

Roles and responsibilities

The scheduling process needs to be designed with roles and responsibilities of staff clearly defined, with set timeframes for the formulation of lists. Pre-operative assessment staff and administrative staff should be able to book cases to operating lists at least six to eight weeks in advance of the planned admission.

Barriers to change

IT systems unable to collect any utilisation data will considerably slow down the process of collecting and analysing information. Communicating to all staff the necessity of collecting data is essential, and time must be spent ensuring the necessary policies, procedures and training are in place to support this. The value of collecting and using this information needs to be explained to all stakeholders to ensure support and facilitate the service improvement.

Resistance may be encountered, for example a consultant may be reluctant to hand over the scheduling of his list to a non-medical member of staff. The human dimensions of change should be remembered. Senior day surgery staff need to be involved in all stages of the process, from the initial mapping of the patient pathway to designing of templates and reviewing operating lists on an ongoing basis.

How should the process work?

Trusts will need to review policies and procedure guidelines for the following areas:

- operating list formulation, submission, cancellation and re-allocation policy
- notification of leave policy
- start and finish time policy
- procedure for booking to an operating list
- guidelines on case mix/order of operating lists.

Where policies are not established they will need to be designed, ratified and implemented.

Theatre utilisation information should be collected on an ongoing basis, either electronically or manually. This information should be analysed and presented in a useable format to all key stakeholders on a regular basis with clearly identified actions to support change where problems are identified. Day surgery capacity and demand studies should be undertaken to establish available capacity and forecast ability to meet demand.

Key principles

Nominated personnel should undertake responsibility for scheduling to operating lists and the following basic principles should be applied:

- procedure times must be available and the 80% rule applied
- booking templates need to be designed and agreed by all stakeholders; preferably these will be consultant-specific
- on mixed inpatient/day case lists, day case patients should be booked at the start of the list to facilitate same day discharge and improve turnover time for trolleys and beds
- due to the similarity of procedures, patient flows should be optimised
- local anaesthetic cases can be block booked to lists where anaesthetic cover is not available, e.g. audit sessions
- on mixed general and local anaesthetic lists, local cases should be booked to the end of the list ensuring maximum recovery time for general anaesthetic cases
- lists should be booked at least six weeks in advance and reviewed by senior day surgery staff – adjustments in case mix can be made appropriately, and availability of staff and resources planned effectively.

What are the main benefits?

The main benefits of monitoring theatre utilisation and implementing scheduling are as follows:

Patient benefits

Ensuring efficient utilisation of resources and scheduling will provide patients with increased certainty. This is achieved by confirming essential staff and equipment will be available for the procedure and reducing the risk of cancellation.

Staff

Satisfaction and morale of staff will be enhanced, as efficient utilisation will help shifts start and finish on time. Effective scheduling provides the opportunity to plan staffing levels, ensuring the right skill mix and availability of equipment. Identified downtime can be used to support training and development for staff. Efficient working practices will raise the feel-good factor within the theatre/day surgery department.

Trusts

Monitoring theatre utilisation will provide increased planning ability to match capacity to demand, which will in turn assist in the achievement of wait time targets. Efficient utilisation will ensure services are cost effective and resources optimised. Effective scheduling will increase the number of patients treated, therefore assisting in the achievement of activity and performance targets. Increased staff satisfaction and morale will lead to reduced sickness levels.

Five key points to remember:

1. theatre utilisation data is key to ensuring optimum use of resources is achieved
2. operating list submission, cancellation and re-allocation policies plus start and finish time and notification of leave policies need to be in place to support effective theatre utilisation
3. scheduling effectively will increase certainty for patients and reduce cancellations
4. efficient scheduling and theatre utilisation will increase patient and staff satisfaction
5. collecting and analysing utilisation data will assist in achieving wait time targets, ensure financial value and assist in achieving activity and performance targets.

Good practice examples

Shared Lists

Medicine and surgery share lists for maximum theatre utilisation. Patients requiring general anaesthesia for DXT (insertion of rod) are now treated in day surgery theatres.

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14. Service improvement

Introduction

Constant striving to improve services for patients is one of the key objectives of all NHS staff, regardless of their role. Based on service improvement experience gained over the last two years, this section outlines some of the approaches that can be applied specifically to improve day surgery.

Model for improvement

It is important when implementing any change to understand whether the result constitutes an improvement. A useful framework for developing, testing and implementing changes is illustrated in Diagram 1. It helps if the user tempers their desire to take immediate action with some initial careful study to establish potential benefits.

The model includes three questions:

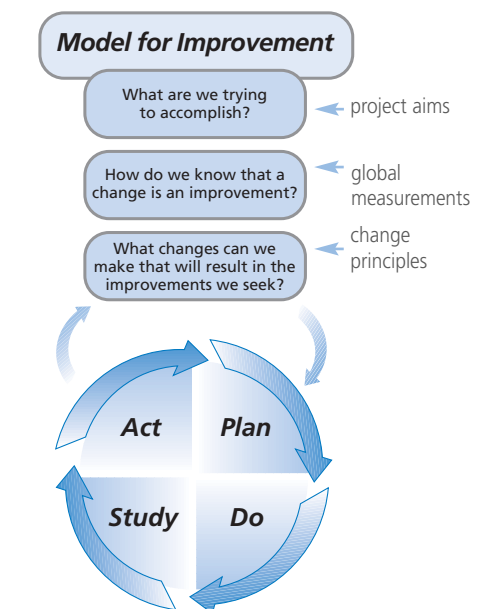
1. What are we trying to accomplish?
2. How do we know that a change is an improvement?
3. What changes can we make that will result in the improvements that we seek?

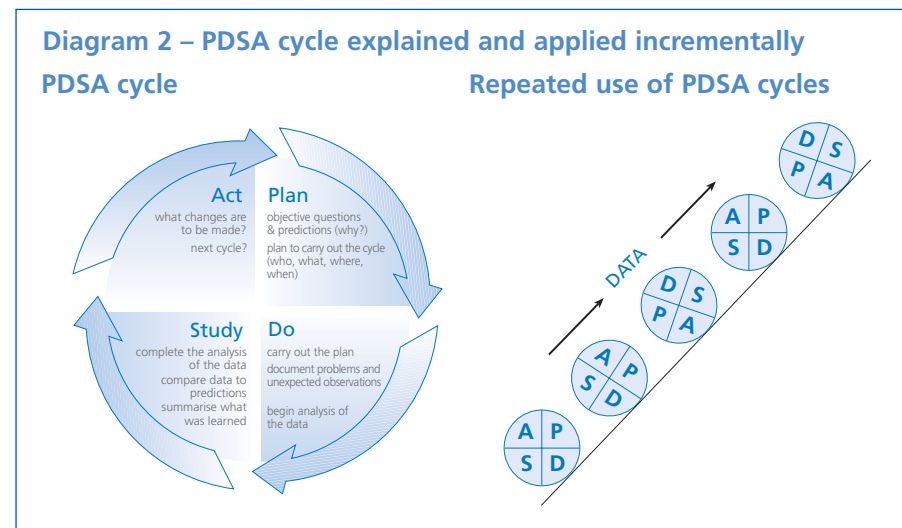
What are we trying to accomplish?

Answering this question requires clear and focused aims. Changes in day surgery require clinical support and leadership and must focus on the concerns of patients and staff. One approach is to make an aims statement. This should be:

- consistent with national and local targets, plans and frameworks
- bold in its aspirations
- a clear, numerical target.

Diagram 1 - Model for improvement - Langley G, Nolan K





Stakeholder groups

Successful implementation and sustainability is dependent on leadership and ownership. It is essential to have the right stakeholder group to support proposed changes. The key stakeholders must also provide the necessary technical expertise for successful improvement work. Stakeholder group membership should be defined by the scope of the local project and the organisational context. Most importantly, a credible leader to drive the improvements must be identified. They should be of sufficient stature and have enough authority to enable them to solve any difficulties. All key stakeholders should support the scope and objectives of the project.

How do you know a change is an improvement?

The model in Diagram 2 suggests the use of PDSA (plan, do, study, act) cycles, an incremental way of testing an idea by putting a change into effect in defined measurable stages and testing the outcome at each stage. They can be used to layer change upon successful change as shown in Diagram 2 above. A more detailed explanation of PDSA cycles can be found at www.modern.nhs.uk/improvement.

What changes can be made to achieve the required improvements?

When introducing or expanding booking there are numerous changes that could be made to processes within the patient pathway. Sometimes it may be difficult to ascertain whether a proposed change would bring sufficient benefit to be worthwhile or fit within the broader health system. Experience and learning from across the NHS has developed a number of key principles to help select the most appropriate changes to make to a system. These principles have been designed to help teams focus on those changes leading to the greatest improvements and are summarised briefly in the table opposite

Table 2 – Summary of change principles

Change principle	Brief Description
A: Focus on patients' needs	Involving and understanding the system from the patients' perspective will help focus on their needs
B: Improve the process	Using mapping to understand the patient process will highlight areas for improvement
C: Match capacity and demand	Understanding the patient journey allows a team to analyse the actual demand and capacity required to enable a smooth flow of patients. It will show where backlogs and bottlenecks exist and demonstrate how one part of the process can affect another
D: Improve communication	Effective communication between individuals and teams can deliverer significant improvements
E: Make it mainstream	Any change resulting in improvement must become part of the way teams work every day. Implementing, sustaining and monitoring changes becomes part of everyone's role

Good practice examples

Speciality user group meeting
Annual meetings occur with clinical directors, consultants and service managers of each speciality to discuss list utilisation, skill mix, consent and other relevant issues of service provision.

Day Surgery Unit Operational Policy
Fixed Rotation for Day Surgery Staff
80% of staff work in all areas, including pre-assessment, theatres, first and second stage recovery areas.

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15. Clinical engagement

For changes in day surgery services the most important stakeholder group to have on board is clinical staff, and in particular surgeons and anaesthetists.

It is clear from recent experience of change programmes in the NHS that redesigned systems of healthcare delivery usually require clinicians to change the way they work. Additionally, it is very important to engage clinicians in the redesign process to ensure that new ways take account of clinicians' priorities.

"If your consultant staff aren't on board then it isn't going to work. Unfortunately, like so many other things in the NHS, they are the lynchpin and if you can't get them on board, it doesn't matter what else you do, the project isn't going to work" RIPP Programme: Evaluation of National Booking Programme.

Clinicians taking part in the redesign process and making a commitment to new ways of working will sometimes go beyond this and take on leadership roles. An important factor in the promotion of clinical engagement is the existing situation within an organisation. How can clinicians become more involved in the strategic and day-to-day management of the organisation?



The following are key elements of any strategy to involve clinicians in service improvements:

- clear patient-focussed objectives
- formal, structured involvement of clinicians in the redesign of the service
- a measurement and evidence base for any changes proposed or implemented
- clear, regular communication with a range of clinical staff, using media appropriate to the message
- use of clinical enthusiasts to help promote the change and convince sceptics.

Good Practice example

GP open evening

An evening meeting for GPs to visit the unit. Consultants from different specialties make presentations, and discussions on the merits of day surgery follow.

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16. Conclusion

There continues to be a wide variation in the rates of day surgery currently performed and in the manner that day surgery services are delivered. However, the Modernisation Agency's Day Surgery Programme found from the nine trusts they provided intensive support to, there were similar issues identified, many of which could be improved by implementing good practice as explained in this guide.

Following good practice for the entire patients' journey will help to:

- improve the patient experience
- create capacity within existing facilities by ensuring maximum use of facilities
- improve access and reduce waiting times
- offer a quality day surgery experience to a wider range of patients
- improve staff satisfaction.

The MA Day Surgery Programme has focused on helping SHAs and clinical champions to improve day surgery services locally, in a way that will be beneficial for their local population. It is hoped that this guide will offer a basis to share some of the learning experiences from that work.

