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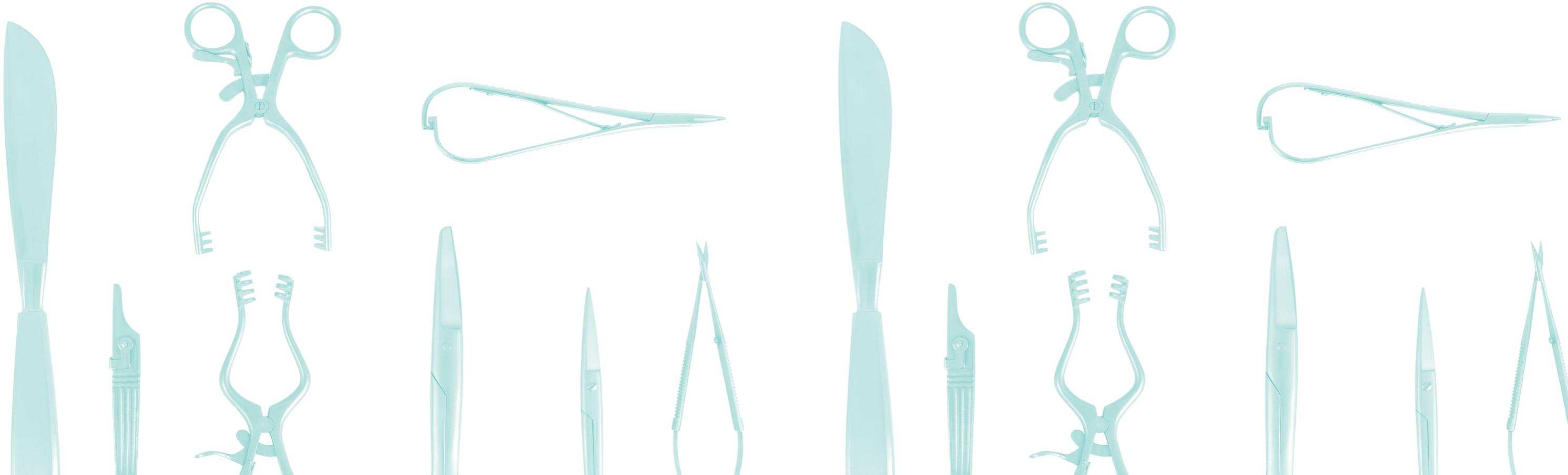
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OUTPATIENT CLINICS

A Guide to Good Practice



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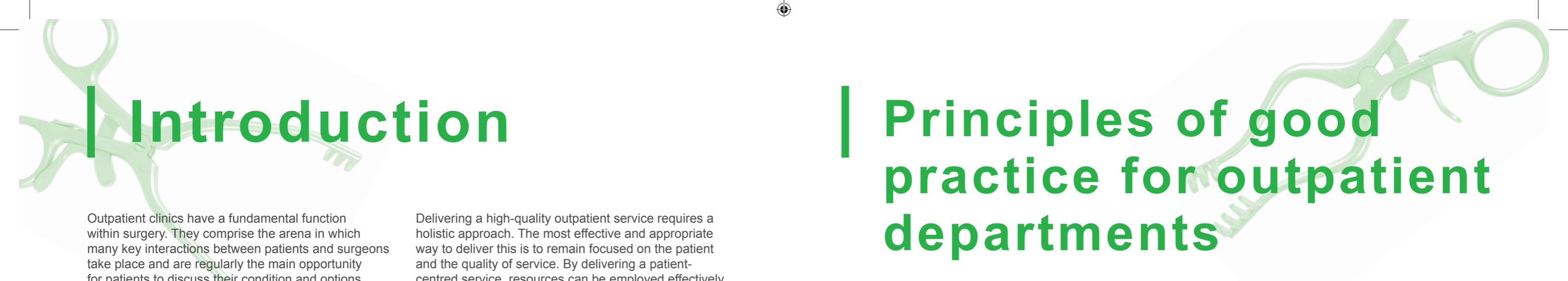
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Introduction

Outpatient clinics have a fundamental function within surgery. They comprise the arena in which many key interactions between patients and surgeons take place and are regularly the main opportunity for patients to discuss their condition and options for treatment available to them. Although these interactions are essential to the provision of surgical care, often issues affecting the management of clinics can frustrate patients, clinicians and providers and can have an impact on service quality.

With pressures on the UK health service increasing, and further demands for cost reduction forecast, it is a challenge to maintain optimal delivery of care to meet the needs of the population and use resources effectively.

Delivering a high-quality outpatient service requires a holistic approach. The most effective and appropriate way to deliver this is to remain focused on the patient and the quality of service. By delivering a patient-centred service, resources can be employed effectively for better patient care and experience.

Patient experience is a highly important factor in running an outpatient department. The patient must be treated as an individual with values, concerns and wishes. With the pressures facing the UK health service, it can be easy to lose sight of this aspect of care provision.

Principles of good practice for outpatient departments

The provision of a high-quality surgical service requires effective management of all aspects of service provision – including the educational, training and other professional development needs of the members of the surgical team – for the efficient and effective use of resources within the service and for the further development of the service. High-quality surgical care in outpatient clinics involves a holistic and patient-centered approach to the delivery of every aspect of the service.

Optimising the capacity of outpatient services requires the mapping of all of the steps of the patient pathway through the service, the measurement of patient flow through each step, and the analysis of this evidence to show where quality improvement initiatives can maximise benefit to patient care.

Steps within the patient's journey can progress at different speeds and have different throughput capacities. Slower steps in the process can cause delays and queues for patients, with an adverse impact on the whole care pathway. Identifying these bottlenecks can facilitate the effective implementation of improvement programmes and the delivery of better care for patients.

Reducing the number of steps in a patient journey can reduce the likelihood of delays and improve patient experience. Fewer trips to the hospital may reduce the impact on the day-to-day lives of the patients. The adoption of appropriate models of care and principles of good practice for understanding when appointments are not necessary can benefit the patient and reduce the cost of his or her care.

A major issue facing all outpatient services is that of the management of resources when patients do not attend (DNA) their appointments. Although some benefit can be gained through the overbooking of clinics to counteract those patients not attending, these systems are themselves the source of further problems and are far from ideal.

The best way of managing DNAs is prevention rather than cure, and this can be achieved by offering a high-quality, convenient service that does not unnecessarily disrupt the lives of patients. Through the implementation of better processes, reduction of waiting times, training and engagement of staff and focus on patient experience, services can reduce this burden and use resources more effectively.

Understanding patients as individuals and treating them with respect are essential conditions of surgical practice. By understanding patient needs and acting on them, clinics can deliver a better-attended and improved service for patients.

What can I learn from this guide?

This document builds on the principles set out in Domain 3 of the RCS's *Good Surgical Practice* (2014) and expands on standards set out in other RCS and regulatory guidance to advocate a patient-centred approach to the running of outpatient clinics. It discusses the optimisation of processes of running a clinic and ways to collect the required data to improve clinic management and maximise efficiency while ensuring that these improvements do not come at the expense of patient safety.

This document offers practical guidance on good practice in the configuration and management of surgical outpatient clinics to enable managers, commissioners, clinicians and other healthcare staff to improve service quality and maximise efficiencies in resource allocation.

1. Capacity optimisation – understanding the patient journey

UNDERSTANDING DEMAND AND THE NEEDS OF YOUR PATIENTS

DNAs cause disruption and inefficiency in the use of resources, therefore it is important to have as few of them as possible. DNA rates fall when patient satisfaction levels rise, so improving rates of DNA requires a patient-centred approach to running outpatient clinics.

It is important to base service design on the needs of the patient group that they are designed to serve. Although financial and other external factors will impose limitations on the way that services are delivered, it is important that minimum standards are met and exceeded wherever possible.

Each patient population will have specific needs and, prior to any system change, a thorough analysis of and consultation with the patients the clinic will care for should be undertaken.

Demand measurement

It is important to understand the demand and the variation in demand for your specialty and local services. Services are commissioned based on data analysis and local factors that need to be constantly monitored to ensure that capacity is available to meet the needs of your patients. It is important to be aware of fluctuation in demand to plan services effectively. Demand may rise in other areas of your specialty services, and this can have an impact on resource availability, which extends to services that are not directly affected by these factors. It is, therefore, important not to plan services in isolation and to give thought to how related services can have an impact on delivery.

The NHS provides a suite of tools for estimating the capacity and demand that an outpatient clinic will need to meet. (www.nhsimas.nhs.uk/ist)

MEASURING CAPACITY

Understanding and mapping the processes of care

Once you understand the demand on your service, it is necessary to ensure that there is sufficient capacity available to meet this demand. It is important to understand both your core capacity (the capacity your service generally has available to care for patients) and any ad hoc/flexible capacity that can be drawn on to deliver the service where necessary.

It is almost never the case that anyone will see every step in a patient's journey. Even the patients themselves are sometimes unaware of steps taken in the process of their care. The patient journey must be understood in its entirety if improvements are to be made to the system with the intention of maximising output capacity. Each patient journey comprises a care process made up of a number of connected steps or actions. An example of a process map for outpatient endoscopy clinic can be seen in Appendix B.

It is essential to map each of the steps in a care process to analyse where improvements need to be made. This should begin with a thorough process-mapping exercise to understand how patients flow through the care system. This exercise will require input from multiple sources to ensure that all the steps in the process are included.

Walking the patient pathway

To understand the steps in the patient pathway, a good exercise is for someone with sufficient clinical expertise – for example, a trainee surgeon, junior doctor or, where appropriate, someone in an extended non-physician role, eg physician associate or surgical care practitioner – to follow each of the steps of the path and record them on a proforma (see Appendix D for a template for mapping a patient journey), noting any apparent issues that might be affecting the step in question. Once this exercise is complete, the relevant measures of each step in the process can be measured and analysed to show where the issues are arising.

Capacity, loss and output measurements

Once the process of care provision delivered by the clinic is understood then the clinic's capacity can be measured accurately and any improvements can be directed appropriately to deliver maximum output. There are three components that need to be taken into account when measuring service capacity: designed capacity, planned loss and avoidable loss. It is important not to confuse the different areas of capacity in the design of services and to ensure that the avoidable loss is estimated correctly to avoid overloading systems.

These components can then be used to calculate the actual output of the service and any capacity improvements needed to meet service demand. This is illustrated in the following example:

Figure 1: Measuring capacity



In the example, the designed capacity of a clinic room is 24 hours 7 days a week. There is a planned loss of 128 hours, as other resources are only allocated to the room 40 hours per week, and there is a further avoidable loss of 8 hours, if the capacity is only used efficiently 80% of the time, which might be due to DNAs and cancellations.

Design capacity minus the planned loss provides the effective capacity of the system and when the avoidable loss is deducted from this the actual output of the service is revealed.

The two key performance variables to be measured when assessing capacity are utilisation and efficiency, discussed further below. These measurements can provide insight into the loss in output of a system and how much potential capacity is available to tap.

Utilisation

Capacity utilisation measures the actual output of a service in relation to the designed capacity. This measure provides useful insight into opportunities for optimising capacity by showing the redundant capacity within a system, which can be tapped where required or might provide potential capacity for other services where surplus to requirements.

Efficiency

Capacity efficiency looks at how much of your effective capacity is given over to avoidable loss. This describes resources that are not optimally employed or systems that do not maximise usage of these resources and therefore lead to waste. Areas that commonly fall into this category include:

- DNA
- Patient notes insufficiently managed
- Overrunning
- Overbooking
- Communication

Both efficiency and utilisation measurement can demonstrate potential areas for quality improvement and enhanced working practices to improve the output of your service.

The team

Capacity measurement is significantly improved when the whole specialty team is involved in the initiative. NHS Innovation recommends as a minimum that the clinical director, lead consultant, general manager, service manager, trainees on rotation in the department, relevant administration/booking staff, outpatient manager and designated information analyst who will support the work are engaged from the outset of the process. See section 8 below for more information on team working and staff engagement.

ANALYSING THE PROCESS MAP

Once the process map is complete, the next stage is to analyse it to discover constraints and issues effecting outpatient services by considering the following:

- Where are the delays, queues and waiting built into the process and what are the causes of these (constraints)?
- Where are the bottlenecks (the slowest points in the process, which impede the flow of subsequent steps)?
- What are the longest delays?
- What is the approximate time taken for each step (task time)?
- What is approximate time between each step (wait time)?
- What is the approximate time between the first and last step?
- How many steps are there for the patient?
- How many steps add no value for the patient?
- Are there things that are done more than once?
- How many times is the patient passed from one person to another (hand-off)?
- Where are any re-work loops where activities are undertaken to correct situations that could be avoided?

- Is work being batched (waiting until a certain volume of work has accrued prior to commencing any of the tasks)?
- Where are the problems for patients?
- At each step, is the action undertaken by the most appropriate member of staff?
- What and where are the problems for staff?

(See Table 1 on page 10 for descriptions of common constraints for outpatient clinics)

The purpose of analysing the process map is to identify if the patient is getting the most efficient care at the most appropriate time and place. Consider the steps that cause the most delays for patients and staff. These steps should then be mapped in more detail. This can be done several times, each time at a greater level of detail.

The following sections of this guidance are aimed at answering the questions above and addressing the problems they expose.

CAPACITY OPTIMISATION – BEATING THE BOTTLENECK

Once current utilisation is understood, it is possible to tap any redundant capacity to increase service output. To achieve this it is essential that other services are able to cope with any extra demand that this will place on their workload.

THE BOTTLENECK

For any system, maximum output is determined by the slowest point in the chain. This point in the chain is known as the bottleneck. Within outpatient clinic systems a bottleneck can be caused by anything that restricts the flow of patients into and through the clinic system. Bottlenecks occur when the demand for a particular resource (eg rooms, equipment, tests or clinical time) or part of the system is greater than its maximum output. If changes are made to improve parts of a system without addressing the bottleneck, the changes may not result in reduction of delays and waiting times for the entire system. To manage this, any bottleneck must be identified and brought into line with the rest of the system's output capacity.

An example of a bottleneck in an outpatient clinic service can be seen in the following example:

If a patient is due to be admitted to the clinic by a nurse who is also charged with discharging patients, then the patient may be made to wait for the nurse to be available for their admission before the next step in the patient journey can take place. These conflicting demands on the nurse's time can cause a bottleneck. Even if the preceding and subsequent steps in the process are not overburdened, the whole system will be slowed down (see Figure 2, below).

Figure 2. Bottleneck in outpatient clinic flow



Where this bottleneck is not properly identified, quality improvement work on the service can be misplaced. Effort and resource can be used to add capacity at other points in the process, which will still have the restriction of the bottleneck placed on the overall output and as such no significant improvement in performance will be delivered.

Even adding further capacity at the bottleneck is of use only if it does not exceed that of any of the subsequent steps, as if it does overtake the next slowest moving part of the system this will then become a bottleneck and the problem will be repeated.

False capacity

There are also times when systems are pushed to run over optimal output to clear backlogs – leave can be put on hold and short-term pushes can deliver over the sustainable and safe output – this can then wrongly be taken to show that the capacity is higher than it in fact is. The problem then comes when leave is taken or other factors (such as fatigue) reduce output, as short-term pushes are by definition not sustainable indefinitely. Capacity measurements should take account of all factors that place limitations on the system and should not be subjected to unreasonable expectations.

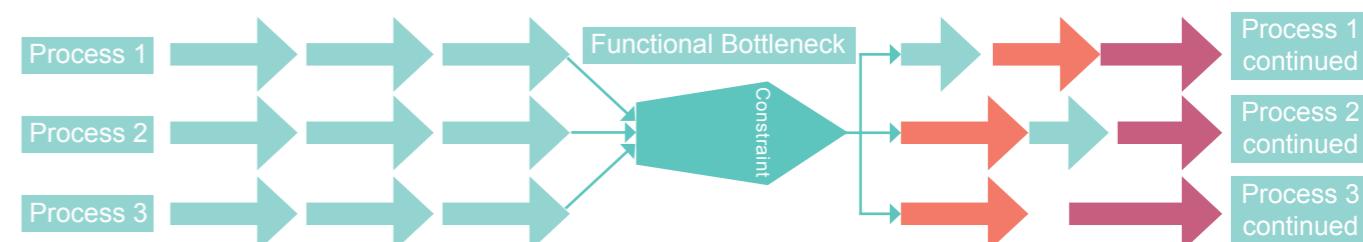
CONSTRAINTS AND QUEUES

Wherever there is a wait within a process there is the potential for a bottleneck to form. It is the activity that causes the wait that is the true cause of the bottleneck. This is known as the 'constraint', in process-mapping terminology. Wherever a patient has to wait in his or her pathway there will be other patients in an equal position and a queue will form. Waiting generally stems from one of two categories of constraint, and at times a combination of both.

The first common category of constraint is the time that other processes take to complete – for example, the time required to analyse a blood sample and report the results. This type of wait is generally outside the scope of the planning of the clinic and can be understood, expected and built into the patient pathway and expectations. This is not to say that the processes in allied systems cannot be improved. However, their time delay, even if optimised, would still factor into the overall time taken to deliver the care pathway for the patient.

This can result in what is known as a functional bottleneck, which results from constraints placed by other diagnostic and therapeutic procedures. Radiology, pathology, radiotherapy and physiotherapy are often functional bottlenecks in healthcare processes. Functional bottlenecks cause waits and delays for patients because they act like a set of traffic lights stopping the flow of patients in one process while allowing the patients to flow in another.

Figure 3. Functional bottleneck



Functional bottlenecks are highly disruptive to providers as they simultaneously disrupt multiple care processes and organisational output. They are also problematic because they make planning any process that has to share resources in this way more complex, as the competing requirements of different departments have to be negotiated to stand any chance of optimising resource for all patients. Owing to this complexity and the need to ensure that hospital resources are correctly allocated, it is essential to identify any functional bottlenecks early in the process and work with all the different teams to find solutions that will deliver the most from the existing resources. Where these are not sufficient, investment in expanding capacity should be allocated.

These discussions can, however, be delayed significantly by disagreements between departments that have a stake in the allocation of the relevant resource. To overcome these issues, collaboration between all stakeholders must be agreed from the outset. Strong leadership is essential for the success of any improvement work.

When planning any changes to services that cross departmental and care pathway boundaries, all parties should agree to a set of fundamental principles to guide the decision process. These principles can be used later to test and justify any decisions. Owing to the complexity and variety of functions that could fall into this category, the principles must be agreed on a case-by-case basis. However, some of the most general and important include:

- Ensuring that care is allocated based on clinical urgency
- Treating patients as individuals and not as products
- Applying common sense. A protocol should not lead to an absurdity. For example, a patient who is clinically safe and not in distress should not have to wait 20 minutes for a wheelchair if he or she is happy and able to walk 10 metres to an x-ray department.
- Equity – all patients should be valued equally and only clinical urgency and overall wait should guide priority.

Agreeing principles on which to base decisions prior to the questions being posed can help reduce conflict and provide a framework for understanding.

The second common category of cause for waiting in outpatient services (ie the second constraint) is born out of the limited availability of resources. Regularly the most in-demand resource in an outpatient service is consultant time. The way that the use of this resource is allocated, and the subsequent use of other members of the care team's time, is key to optimising the performance of the clinic.

Consultants' time should be spent, as far as possible, in the planning and delivery of patient care. Other clinicians should likewise be carrying out tasks that make the best use of their skills or build these skills through appropriate training. Administrative and other non-clinical tasks should be, where appropriate, delegated to non-clinical staff who are better placed to do this work. Analysis of consultant task allocation should be undertaken and, where safe and appropriate, tasks that do not require a consultant should be reassigned. This process also ensures that non-consultant roles are used effectively and key resources are not wasted.

By freeing up clinical time, the volume and quality of service can be improved and costs reduced.

Table 1: Common constraints in outpatient clinic processes

Batching of work	Batching occurs where tasks are placed in a queue before processing. An example of this might be found in the way specimens or samples are sent to the laboratories for analysis and tests.
Parallel processes	Parallel processes occur when an extra step, or steps, are added to a process without adding any benefit. These processes can cause delays for patients and frustration for staff. A typical example of a parallel process might be the administrative process between primary care and secondary care for a hospital appointment where a GP tells a patient that they need to visit the hospital for tests. The patient then waits while the parallel process takes place, in which the GP dictates a letter to the hospital bookings clerk who then sends the letter to the patient telling them they have an appointment and need to contact the hospital if they wish to change the date of the appointment. This step could be removed if the patient were able to be offered an appointment directly and could book it for a time convenient for them. See below for more information on bookings. Mapping, analysing and improving parallel processes can deliver significant improvement.
Hand-offs	Any point at which responsibility for a patient's care is passed from one person to another forms a potential opportunity for a queue/delay to occur. If one step finishes before another is ready to begin then a delay can cause a bottleneck owing to subsequent steps not being able to begin. To address issues from hand-offs, it is necessary to work with the other teams/people involved in the patient journey and communicate effectively to reduce delay. It is crucial for all staff to focus on the patient as an individual and not see the transfer of responsibility as the end of ownership of the pathway's success. Excellent patient care involves a number of steps and assessment of team performance should be based both on individual contribution as well as on the overall success of the patient's journey.
Re-work loops	Re-work loops are points in a system where work is repeated or extra work generated owing to faults in the system that could have been avoided. These include duplication of patient records, reordering of tests and the need for a second consultation prior to decisions regarding fitness for surgery due to the absence of test results at first appointment. These points are frustrating for staff and patients and should be identified and rectified; see relevant sections below for advice on addressing these areas.

REMOVING THE BOTTLENECK

To ensure that this cycle of problems does not occur, it is important to understand fully from the outset all the dependencies that the clinic relies on to provide patient care and how any adjacent (even if not directly dependent) services are affected by any changes to your service. Increases in one area can have an impact on demand in others and if this is not accounted for then patient care can be affected at another stage. For this reason it is important to make sure any alterations to outpatient departments are guided by the aim of better care for patients across their entire care pathway. To address these concerns the NHS introduced the incomplete pathway as a single measure of referral to treatment (RTT) performance, which identifies the number of patients still waiting to start treatment. Silos in care services and individual departmental targets previously led to teams focusing on their section of the chain to the exclusion of its impact on other departments.

Optimise the care team

Optimising the care team is critical to maximising the capacity of the clinic and improving the daily care of patients. The specific mix of staff (number of surgeons, physicians, nurses, assistants, technicians, clerks, etc) will vary from clinic to clinic and specialty to specialty. The care team composition of each clinic emerges from a discussion of how the clinic (and ultimately the provider) decides to balance its supply and demand. The clinic has to understand the types of services it provides, and then decide who should be involved in the work and how the work should be divided among the care team. This approach begins with demand and adjusts supply to meet the demand (within the limits of available resources). This is different from an approach that sets an arbitrary care team mix and then tries to fit the demand into the supply. Where surgeons and other clinicians' time is used on tasks that could be more appropriately undertaken by other members of the team, this can place restrictions on the whole system and cause bottlenecks.

Maintain accuracy in scheduling

This means that scheduled appointment times should match the actual time that the patient is seen by the care team in the individual department. Gaps between scheduled visit time and actual visit time cause patient dissatisfaction and are related to patients not showing up for scheduled visits, and lead to office staff time spent in explanation or apology. Measure from the start of one appointment to the start of the next appointment for 50 or 100 consecutive appointments to find out how long it takes for appointments to actually move from one to another. Create a schedule template that matches the reality of the clinician's pace. This allows the office to work in a continuous flow mode.

Doing work as it occurs (eg doing documentation at the end of each consultation) reduces the bottlenecks created by holding similar types of work to be done at a future time (batching). For example, clinics might save all telephone calls, documentation, etc, for the end of the day or session. This is referred to as 'batching'. With continuous flow, all work is accomplished as it presents itself and completed in one continuous action. Appointment times may need to be lengthened, or pauses placed in the schedule, to accommodate

continuous flow and reflect a certain accuracy in scheduling. Continuous flow does not mean that time is added to the day, but that it is reallocated throughout the day (*Optimising the Care Team*, Institute for Healthcare Improvement, 2016).

Reduce complexity

Complex pathways with many appointment types (eg diagnostics, imaging, examination, preoperative assessment, etc) at different times and with restrictions on the time of availability (ie only during working hours), can actually increase total delay in the system because each appointment type and time creates its own differential delay and queue. Reducing the complexity ultimately decreases delays. Queueing theory (the mathematical study of waiting lines) suggests that reducing the number of separate 'lines' or 'queues' for different services creates more flexibility in the system and reduces delays associated with distinct queues. Therefore, having many appointment types actually increases total delay in the system because each appointment type creates its own differential delay and queue.

Table 3: Optimising capacity – tips for good practice

Patient transport	Put a process in place for minimising patient wait for transport between departments.
	Where clinically appropriate, ask patients whether they need/want to be transported by trolley/wheelchair or if they feel able to walk.
	Sense-check that organisational protocols are appropriate to the individual situation, eg are patients waiting for 20 minutes for a porter and a trolley to be transported 25 metres, as the journey takes them across an invisible departmental boundary? Have process in place for exempting specific instances from protocols that are not applicable to the instance.
Optimising the care team:	Ensure that the tasks undertaken by members of the team are appropriate to their grade. This is essential for patient safety where underqualified staff are providing services and for efficient use of resource where consultants are spending time doing routine administrative tasks.
Reduce complexity of pathways:	Identify any processes that are unnecessary or wasteful, eg parallel processes or re-work loops (see table above for descriptions of these issues) and ensure that they are removed to reduce number of steps in the care process. The more steps the higher the risk of delay.
Accuracy in scheduling:	Scheduled appointment times should match the actual time that the patient is seen by the care team in the individual department. Gaps between scheduled visit time and actual visit time drive significant patient dissatisfaction and are related to patients not showing up for scheduled visits.
Set expectations in line with reality:	Candid and honest explanation of what to expect from a clinic service increases satisfaction levels and reduces frustration for patients when delays happen. Remember that satisfaction is a measure of how closely reality mirrors expectations.

Table 2: Process complexity and likelihood of error

Number of process steps	Probability of success, each process step where initial probability equals 0.95
1	0.95
25	0.28
50	0.08

As the number of steps in a patient journey increases, delays become more likely. A basic lack of visibility, confused responsibilities, unnecessary work, disconnects and extra workarounds all add up and tangle with one another. The more complex things become, the greater the chance of errors that undermine quality and/or threaten safety. For example, if there is a 5 per cent chance of making a mistake for each step in a series of tasks, and if there are 50 steps, the chance of getting them all right is less than 10 per cent (see Table 2). Many healthcare processes involve hundreds of steps, meaning there is little chance of an error-free outcome.



2. Cancellation and did not attend (DNA)

Approximately 6.9 million outpatient hospital appointments are missed each year in the UK, with a missed appointment costing an average of £108. Patients failing to attend outpatient clinic cost the NHS around £750m in 2012/13 (Health Watch NE Lincolnshire, 2014). Further to the financial impact of DNAs, there is also the effect that failure of patients to attend clinics has on waiting lists and patient experience, not to mention the potential impact that longer waits can have on the health and wellbeing of patients awaiting treatment.

Hospital cancellations

If the hospital or service cancels the operation at the last minute (on or after the day of admission) for non-clinical reasons, they should offer another binding date within 28 days or fund the treatment at a date and hospital of the patient's choice.

If patients are not offered an appointment within 28 days, they have the right to make a complaint to their local CCG. This can incur financial penalties for providers and has led to criticism of trusts that have delayed treatment of more clinically urgent cases in favour of patients who will exceed the target threshold.

If an operation is cancelled before the day of admission, the hospital or service is not obliged to provide an alternative option within 28 days.

However, the patient's right to start consultant-led treatment within a maximum waiting time still stands. If a patient has to wait longer for an appointment because the hospital cancels it, that patient has the right to be treated by a different provider.

It is good practice to inform patients at the earliest possible time if a clinic needs to be cancelled and local standards should be put in place to ensure that patients are given sufficient notice as well as ensuring that hospitals can reallocate resources and rebook patients efficiently.

DNA – WHAT ARE THE CAUSES?

Patient cancellation vs DNA

Patients cancelling or failing to attend outpatient appointments puts a huge strain on health services and wastes clinical time and hospital resources, which are already over-stretched. If a patient cancels before the date of his or her appointment, though, the appointment can be reallocated to another patient, reducing wastage.

Therefore, patients should be provided with simple and well-documented processes to cancel appointments and should, where possible, be encouraged to confirm by reply, when it reaches the point of sending reminders, that they will be attending the clinic. When patients do not attend (DNA) – particularly when they have not contacted the clinic to notify them – resources are wasted and other staff and patients are frustrated.

Causes cited in patient feedback for failure to attend outpatient clinics include:

- The time didn't suit me
- Couldn't get through to the booking team to reschedule
- Appointment wasn't important for me
- Didn't remember to reschedule
- People don't know where they will be in six months but do in four weeks
- Number of appointments become too onerous for patients and their employers
- Amount of time waiting for appointment on the day makes it difficult to plan anything around work
- Stress caused by the process and inefficiency of running the health service really puts me off, as I am already stressed by my condition and this causes me to bury my head in the sand and not attend.

Solutions to underutilisation are generally focused on either increasing patients' likelihood of attending the appointment or on offsetting those who do not attend by overbooking clinics at a rate of an average percentage of those who DNA.

DNA – INTENTIONAL OVERBOOKING

Intentional overbooking of clinics to offset DNA wastage is a general practice in most NHS services. However, this method causes unintentional difficulties for the service and can increase patient waiting time both on and prior to the date of clinic.

Where overbooking systems are in place to offset DNAs, overbooked patients are typically added earlier on the list to maximise their chances of filling a slot that has been left empty by a DNA. This can, however, work out badly for the overbooked patient if the first DNA does not happen until the end of the clinic, or if there are no DNAs at all. Patients are left to wait, clinics overrun and doctors can feel under pressure for patients' appointments to be rushed to attempt to reduce the number of unhappy patients in the waiting room.

Overbooking, despite addressing the issue of DNA to an extent, can lead to reductions in patient satisfaction as well as putting pressure on doctors to rush appointments, which threatens patient safety. This can lead to insufficient time being spent giving patients proper information to help them make informed decisions about their care with the support of an expert clinician.

Proper communication with patients about any overbooking can help alleviate dissatisfaction. If a patient is told at booking that he or she is in an overbooked slot and may have to wait longer, the patient can modify his or her expectations and is less likely to be disappointed or unhappy. Explaining the reasons for the overbooking will also help the patient make an informed decision when booking future appointments.

Dissatisfaction is a consequence of failure to meet the expectation of patients. Perfection in a system is never realistic but if services are honest then people are more accommodating and understanding towards them. It can also highlight the problems that services face and raise awareness of the challenges and pressures on health providers.

By providing a patient-centred service and optimising processes and teamworking, DNA rates for outpatients can be significantly reduced and patient care standards can be improved. With lower numbers of DNAs, the need to rely on overbooking is reduced – along with the problems it can entail.

3. Patient-centred services

The individual needs of your patients

Patients must be at the centre of all planning and delivery of care services. It is essential that, when optimising the processes of providing an outpatient service, patients are viewed as individuals whose care is the purpose of the service. Be aware of the needs, values and wishes of the patients that use your services and give thought to their families and carers. When planning services, consult with patients, carers, local primary care providers and patient representative groups to gain a picture of the people you will serve and to ensure that the clinic is able to meet their needs. Methods for collecting information on patient needs include:

- Surveys
- Focus groups
- Interviews
- Pilots with feedback
- Public consultation on plans for services – with opportunity for feedback provided
- Consultation with patient advice and liaison service (PALS) and other patient and lay groups
- Interviews with former patients (either through advertising for people to come forward or working with survivors groups and charities or similar organisations).

Patient choice and supported decision-making

The NHS Constitution for England sets out patient rights to be involved in decisions about their care: 'You have the right to be involved in discussions and decisions about your health and care, including your end-of-life care, and to be given information to enable you to do this. Where appropriate this right includes your family and carers.'

This applies to both involvement in decisions about which treatment to receive (if any) – as well as to where, when and by whom they are to be treated. The RCS has published guidance on providing information to patients and supporting them through the decision-making process for whether to undergo treatment, as well as to which treatment they wish to receive if they do decide to proceed (Consent: Supported Decision-Making, RCS 2016).

Patients have the right to choose the organisation that will provide their NHS care when they are referred for their first outpatient appointment. The Department of Health & NHS, 2014/15 Choice Framework states that:

'If you need to see a consultant or specialist as an outpatient for a physical or mental health condition, you can choose the organisation that provides your NHS care and treatment anywhere in England for your first outpatient appointment. (An outpatient appointment means you do not need to stay overnight.) You can also choose which consultant-led team or which mental health team led by a named health care professional will be in charge of your NHS care and treatment (employed by the organisation you choose) for your first outpatient appointment.'

Consultants and managers should ensure that patient choice is maximised both within their clinic's systems and through working with their local primary care sector and commissioners.

Access to care

It is important that services can be accessed by all patients of the hospital's population, including those with specific needs.

Measures should be taken to extend access to patients from minority groups. Where there are large populations of patients who are unable to communicate adequately in English, translators and/or information in non-English languages should be provided.

Providers should ensure that clinic information is made available in formats that are accessible to patients, service users, carers and parents, especially where those needs relate to a disability, impairment or sensory loss. You can refer to local and regulatory guidelines on accessibility and adhere to SCCI1605 Accessible Information (the 'Accessible Information Standard'), which is a requirement for all NHS care providers that was introduced in July 2016.

Patients are people first

All healthcare staff must remain focused at all times on patients as individual people and not as a product on a production line. Where possible, each process should be created in consultation with patient and lay representation.

At times pressures to meet targets can take front of stage in management thinking and it is important that surgeons are vigilant to ensure that this does not compromise patient safety.

Physical factors

Accessibility issues relating to the physical location and design of the clinic can be difficult to influence in many cases. Although it is essential that the premises are safe for clinical purposes and do not put patients at risk, the following guidance is aimed at patient experience and not clinical concerns and provides some advice for areas that should be addressed as a minimum standard.

Table 4: Physical factors – tips for good practice

Location of clinic well signposted and easy to access

Environment – clean, comfortable and welcoming facilities are an essential part of high-quality surgical care. Uncomfortable and poorly maintained facilities have a negative impact on patient experience

Info on conditions and treatments – where available and appropriate, time spent waiting can provide an opportunity for some patients to learn more about their condition and/or the treatments on offer. Literature relevant to the patient group and in formats accessible to patients can be provided, as can other aids such as information on television or computer stations or other applicable media. This does not replace the consent process.

Public transport services and patient access – ensure that adequate transport is available for patients to access clinics. Work with health, transport and other local authorities to ensure that care is accessible. Provide information on transport and maps to all patients with booking confirmation.

4. Bookings

BOOKING

For any tax-funded service to achieve optimal utilisation a range of factors must be addressed and the system and target population must be constantly monitored. If the end user is not directly funding the service, they are booking to use, so any failure to attend an appointment wastes time and resources. The cost of this for the NHS is enormous. Although it is difficult to establish the exact financial impact, the National Audit Office estimates that missed first outpatient appointments cost the NHS up to £225 million in 2012/13. At a time when NHS spending is under intense scrutiny, it is essential that processes are put in place to reduce this wastage.

Booking systems for outpatient clinics are complex and finding a balance between overbooking and underutilisation is a constant challenge for healthcare staff. Overbooked clinics result in long waiting times for patients or underutilisation, which leads to surgeons wasting time waiting for patients who do not attend.

WAITING LISTS

The Department of Health states that all patients should receive high-quality care without any unnecessary delay. This is emphasised in the government's mandate to NHS England 2015-16, which sets out that timely access to services is a critical part of people's experience of care.

When treating patients referred for surgery, the patient's clinical need is paramount. Patients should not wait longer than necessary to have an operation. On occasion, time is needed for detailed planning, tests, skilled interventions, ordering of specialised equipment and reservation of high-dependency postoperative beds for patients with complex medical conditions. All of this results in delays. At other times delays could be eliminated by better pathways of care and the standardisation of processes.

The length of waiting times is influenced by two things: the size of the waiting list, and the order in which patients are treated. Issues can arise from waiting lists growing so big that targets become unsustainable, because then there is pressure to prioritise long-waiting patients above those who are clinically urgent. The current targets for waiting lists based on the 'incomplete pathway standard' were implemented in 2015 to address issues of over-complexity that had been caused by providers basing treatment decisions on meeting targets rather than addressing clinical factors.

Patient choice should not be compromised to improve trust performance matrices. It is important that patients are not limited in choice to avoid breaching targets.

Table 5: Bookings – tips for good practice

An agreed appointment: Patients should not be notified of a booking; rather, they should be involved in the arrangement of times. Some systems 'force book' patients who are then asked to contact the hospital to rebook if not convenient. These run at a much higher DNA rate. Asking for confirmation reduces DNA.

Choice of dates: If there are no options then there is no real choice other than take it or leave it.

Information on overbookings at point of booking: Honesty about overbookings and the potential impact this may have on them helps patients set realistic expectations and as such reduces dissatisfaction with services. Failure to mention such factors causes patients to feel as though they are not important.

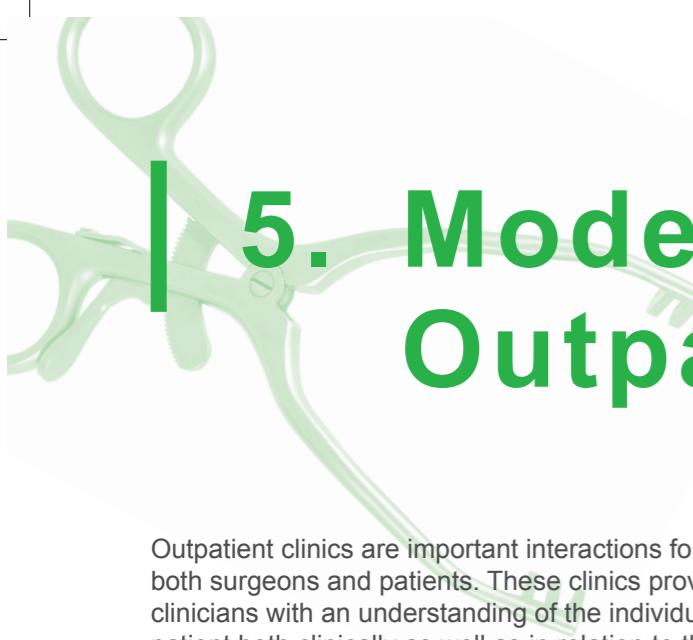
Information on clinic performance measures: Providing information on the trust's and individual department's performance can help both the service and patients recognise issues and successes.

Reminders: Use of text, email or other systems of reminding patients that they are due to attend a clinic both a week before and the day before they are expected can reduce DNA. Asking for confirmation prior to appointment also reduces DNA rates.

Partial bookings: Where wait times for appointments are significant, patients can be placed on a list as partially booked and then contacted to arrange exact date and time closer to the appointment date. This can reduce number of patients who forget the appointment or inadvertently double book the time with other commitments and as such DNA.

Information on how to cancel or inform if not attending: To be included in clinic information as well as mentioned where possible at booking and in reminder. The easier it is for patients to cancel where necessary the better empty slots can be reallocated.

Choice of location of clinic: Where local services are available at more than one site it can at times be easier for patients to travel to one site rather than another and this is not always linked directly to actual geographical proximity from their home address but may be related to where they work or transport links. Offer where possible and appropriate the option of appointments at their preferred location as convenience/availability of travel can be a factor in patients not attending appointments.



5. Models of Outpatient Clinic

Outpatient clinics are important interactions for both surgeons and patients. These clinics provide clinicians with an understanding of the individual patient both clinically as well as in relation to their values and expectations.

For patients, these appointments are often their main opportunity to learn about the options for treatment and ask the clinician questions about their condition or care. On arrival patients may already be stressed and further problems with the service can add to their anxiety. Furthermore, prior to attendance at a clinic patients can become frustrated by an inefficient booking process and any wait for their appointment can add to their distress.

Different models for the delivery of outpatient clinics may need to be considered in order to improve both patient experience and resource efficiency.

Virtual clinics

A virtual clinic provides a direct contact to a named consultant(s) by video link, email or telephone. These appointments are not designed to replace face-to-face clinics but are able to serve some of the tasks that have traditionally been carried out in face-to-face meetings. The value of virtual clinics is in the ease of access for the patient and the reduced disruption to the patient's work or other commitments. Following many procedures, virtual clinics can be used for follow-up appointments with optional call-in at a time and date previously agreed, which can be cancelled if not required.

Table 6: One-stop clinics – tips for good practice

Ensure access to same-day simple diagnostics (eg plain x-rays) for patients attending new outpatient appointments
Build strong links between outpatients, preoperative and theatre – for example, by placing schedulers for specialty-level theatre lists in outpatient clinics to book procedures at a time that suits the patient. This booking information is shared with the theatre supplies team, which can then make sure that appropriate surgical kit is available when needed.
Ensure a consultant is available for advice during a nurse-led clinic

Appendix C gives further examples of one model of a one-stop-clinic being used effectively in units outside the UK.

In many elective surgical pathways, patients must attend hospital on three or more occasions before a 'decision to treat': once for their initial assessment, once for further diagnostics and once for a follow-up discussion and the decision to treat. In the UK and internationally, the most efficient hospitals provide a one-stop assessment during a single outpatient visit that includes:

- initial surgical assessment
- further diagnostics if required
- decision on type of anaesthesia and type of prosthesis, if required
- assessment of anaesthetic risk and referral to risk-stratified pre-assessment
- booking of procedure within the next 2 to 18 weeks
- brief education on preparing for surgery and what to expect postoperatively, including signposting to group or online preoperative education.

Running one-stop outpatient clinics can also reduce cost and administrative time as the bookings can be done simultaneously and information can be sent out in one batch. It is important to ensure that patients receive care in a manner that is consistent with their rights and is not unnecessarily disruptive to their lives. Patients are already under duress while undergoing surgical care so it is essential that this is not exacerbated by having to constantly attend the hospital to have diagnostics, examinations and other aspects of care carried out in isolation. The one-stop clinic can benefit patients by minimising visits to hospital, reducing waiting times and enabling the effective use of resources by:

- reducing the number of appointments per procedure
- reducing the overhead cost per patient for each appointment

Table 7: Outpatient appointments – tips for good practice

Length of consultation: Ensure that enough time is given for patients to ask any questions they have and for consultants to provide the information required for patients to make informed treatment decisions

Coordination with other services: Where possible coordinate with other related services such as imaging and diagnostics to provide patients with fewer visits to the hospital

The implementation of any of the above systems can involve challenges and risks. Change must be implemented through specialty-led quality assurance/improvement at trust level with assistance from supportive management.

Group sessions

In some cases patients can benefit from group sessions. This type of session has been successful in teaching patients about their conditions and potential prehospital optimisation, eg through diet and exercise. Learning about the condition, treatment options and recovery can enable patients to make decisions from an informed position, which is required for consent to be valid. This type of session can also improve patient confidence and lead to a better overall experience of care.

Follow-up and review clinics

Only patients who need postoperative follow-up appointments should be asked to attend the hospital. Alternative methods may enable surgeons to give patients opportunities to address concerns while not burdening them with extra commitments and disruption to their lives for no clinical gain. Principles to guide the review of patients include:

- Use postoperative follow-up and review only where necessary for the patient's care.
- Unless clinically indicated, review should only be carried out a single time.
- No review appointment should be made unless the patient has not had an explanation of what it is needed for.
- The function of a postoperative review should be based on the investigation of: adverse events, review of the pathway taken and any subsequent actions for the patient to take, eg changes to lifestyle following treatment.

6. Records and letters

Patient letters must contain the minimum information necessary for continuation of care. Local principles should be in place to ensure that they are properly formatted and contain the information needed by the oncoming medical and surgical teams. These notes should be sent to the patient's GP and patients should be given the opportunity to receive either electronic or hard-copy versions of their notes and any correspondence about their treatment. The only exception to this is when such disclosure would, in the eyes of the consultant, compromise the safety of the patient or anyone else.

Duplication of records

Duplication of patient records can pose a risk to the quality of patient care and can cause delays in care systems. Incorrect or incomplete records can cause patient safety issues if not identified, including serious and untoward incidents. Further to this, other issues relating to record duplication include: delays due to time taken in subsequent location of other records; duplication of tests and an increase in patient wait and inconvenience; extra staff time spent rectifying issues or doing de-duplication; and inability to carry out accurate audit.

Providers should ensure local standards of practice are put in place and staff are sufficiently trained in avoiding common errors causing duplication of patient records. Areas that are common causes of duplication include:

- Patients with common names such as John Smith are often re-entered on systems owing to difficulty in search results.
- Demographics being recorded in different ways because of lack of standardisation protocols.
- Names with complex spellings or variations of a name causing input errors.
- Appendix A contains an example of an outpatient clinic letter detailing the required headings and information to include.

7. Outpatient department staff and good teamworking

Good leadership and coordination of tasks

Effective coordination of tasks relies upon the presence of confident leadership and on all team members knowing their roles. It is particularly important when team membership changes and new members join. The successful achievement of the team objective is dependent on coordination between team members so that work is not duplicated and that everyone understands their role in the task.

Staff are essential to the success of any unit and any improvements to process should be made in partnership with all staff, both clinical and non-clinical. Staff have a unique perspective of the activities and challenges that affect the day-to-day running of the clinic. This makes their input into planning a vital resource and staff who are fully involved in the development of plans are more likely to deliver changes effectively, because they take ownership of tasks.

Good communication

High-performing teams are characterised by communication that is timely, clear, open and respectful. Communication between individual team members and between teams is important. Team members should feel they can speak up, provide a view and know that they will be heard and listened to. Good communication depends on relaying the content accurately and clearly but also on the style and skills of communication.

Safe interpersonal environment

Team members are likely to feel committed and involved in the team if they feel interpersonally safe. Mutual trust and respect are important features here. In a safe interpersonal environment team members feel free to express their views, challenge one another and raise concerns without fear of ridicule, attack or recrimination. They also feel safe to discuss errors and mistakes. There is focus on team results and an absence of personal agendas, and the climate is non-threatening.

Table 8: Staff and teamworking – tips for good practice

Training and skills	Engagement/ Involvement	Information and communication
Ensure that staff are suitably trained in the use of systems and chains of communications necessary to deliver high-quality services	Ensure that guidance on <i>The High Performing Surgical Team</i> (RCS 2014) and <i>Surgical Leadership</i> (RCS 2014) is followed	Provide staff with information on unit performance and comparison with other equivalent services
New standards of practice – before new procedures are introduced ensure that staff are adequately trained and familiar with new or updated guidance	Involve all levels of staff in initiatives and ensure that successes are recognised as reflecting the whole team	Provide updates on patient feedback both positive and negative to staff
Ensure that staff are provided with sufficient training in communications skill for working with patients and colleagues and standards of communication as set out in <i>The High-Performing Surgical Team</i> (RCS 2014, p 6–7)	Consultation on all change – staff are key stakeholders and should be consulted	Communication to staff of any factors relevant to patients' should be undertaken as soon as issues arise. This will enable staff to inform and advise patients where applicable and improve quality of patient care and experience

Staff engagement when undertaking improvement initiatives in outpatient services

Change is often met with concern from staff as to what – if any – advantage it will confer, as well as about the impact it will have on their workload. In the initial stages of any successful change programme there will often be an increased workload, even if there will ultimately be an overall reduction in workload once the improved processes have been incorporated.

This early increase in work needs to be understood by staff to be a temporary means to the end of better, more effective working. It is essential to engage staff from the outset to ensure any disruption is understood in this context.

Staff are key stakeholders in all change initiatives and as such should be given sufficient consultation and have their views taken into account throughout any programme of transformation. Staff have been shown to view themselves as incidental to any planning and perceive any consultation as only a 'nicety'. They often feel their views are not taken into account in the same way as other stakeholders' views or those of senior management have been.

For further guidance see *Surgical Leadership – A Guide to Best Practice* (RCS, 2014) and *The High-Performing Surgical Team – A Guide to Best Practice* (RCS, 2014).

Table 9: Specialty specific job plan recommendations

The specialty recommendations for consultant job plans (10PA) and current estimated consultant workload within existing job plans for outpatient clinic provision		
Specialty	Job plan recommendation for consultant outpatient clinics commitment:	Consultant outpatient clinic workload within existing job plans:
General surgery	>12 new outpatients per week; >20 follow-up outpatients per week	Outpatient clinics 2 PA
Vascular	>12 new outpatients per week; >20 follow-up outpatients per week	Outpatient clinics 2 PA
Trauma and orthopaedic surgery	>5 new outpatients/clinic per week >10 follow-up outpatients/clinic per week	Outpatient clinics 3 PA
Urology	>Outpatient clinics 20% of job plan	>30–40 outpatient appointments per week
Otorhinolaryngology	Outpatient clinics 30% job plan	12 patients per clinic, 3 clinics per week
Oral and maxillofacial surgery	Outpatient clinics 30% of job plan	>550 new outpatients per year; >1,100 follow-up outpatients per year
Plastic surgery	Outpatient clinics 2–3 sessions per week	25–30 new outpatients per week and 30–40 follow-up outpatients
Cardiothoracic surgery	N/A	N/A
Neurosurgery	Outpatient clinics 1.2 PA	>220 new outpatients per year >260 follow-up outpatients per year
Paediatric surgery	Outpatient clinics 20% of job plan	>20 new outpatients per week; >20 follow-up outpatients per week

8. Further reading

Good Surgical Practice (RCS, 2014)
Surgical Leadership – A Guide to Best Practice (RCS, 2014)
The High Performing Surgical Team – A Guide to Best Practice (RCS, 2014)
Advice On Supporting Professional Activities In Consultant Job Planning (Academy of Medical Royal Colleges)
Standards for patient records Section 5: Outpatient record headings Health and Social Care Information Centre 2013

Outpatient record standards: standard headings for the clinical information recorded in an outpatient setting, including the initial and follow-up outpatient visits, and included in the outpatient letter to the GP and patient.

Surgical Workforce 2010 A report from The Royal College of Surgeons of England in collaboration with the surgical specialty associations

NHS Shared Planning Guidance - NHS Operational Planning and Contracting Guidance 2017 – 2019

NHS IMAS IST Outpatient Capacity and Demand Tool - Version 1.2 (June 2015)

NHS IMAS IST Advanced Flow Capacity and Demand Tool - Version 1.0 (November 2012)

Elective Care Guide - Referral to Treatment Pathways: A Guide for Managing Efficient Elective Care - Second edition (January 2014)

R. Stein, [Improving Patient Flow](#) Better healthcare outcomes through clinical system improvement, Osprey - The Training Programme for Clinical System Engineers (2008)

Department of Health – RTT Rules Suite

Outpatients – A Guide to Good Practice (NHS Wales, 2004)

Nuffield Trust – Outpatient appointments in the UK (2019)

Nuffield Trust – Concentration of outpatient referrals: NHS trusts

Nuffield Trust – Concentration of outpatient referrals: All providers

Optimising the Care Team – Institute for Healthcare Improvement 2016:
www.ihii.org/resources/Pages/OptimizetheCareTeam.aspx

Department of Health & NHS, 2014/15 Choice Framework, April 2014:
www.gov.uk/government/publications/the-nhs-choice-framework

Appendix A: Outpatients clinic letter

Appendix A: Outpatients clinic letter (STANDARD CLINIC LETTER TEMPLATE)

TRUST LOGO
TRUST ADDRESS

PRIVATE & CONFIDENTIAL

Dr A GP
Anywhere Medical Centre
Anywhere Road
Somewheresfield
Postcode
Dear Doctor...

Patients Name

D.O.B.
Patients NHS No:

Reason for Referral

Diagnosis/Working Diagnosis

- Type 1 Diabetes
- Advanced diabetic eye disease with visual impairment

Assessment

- Repeated U&E (results on ISOFT)
- 12 lead ECG shows sinus rhythm at a rate of 50 bpm and first-degree heart block
- Performed lung function test and results were excellent above average
- Performed cholecystectomy all went well

Discussion with Patients

- Recommended to patient they start on Lansoprazole 30mg once daily
- Patient advised to make an appointment to see their GP within 1 week
- Have advised the patient they have been discharged and to see their GP if they have any further problems.
- Have advised the patient they have been discharged – no further treatment or monitoring is required
- Will be followed by xxx in 2/ 3/ 6 months

Management Plan including Actions for Patients (please give reasons for follow-up appointments)

- Discharged back to GP

Appendix B



- No change to treatment
- Will be followed up in six months
- The patient can expect to have 2 follow-up appointments over the next 12 months.

Actions for GP/Recommendations

- Patient discharged from my care but please refer back if any future problems
- Please undertake valve surveillance and monitoring with annual echos or refer to Cardiology if symptoms worsen or develop sooner
- Patient will need to continue on Lansoprazole 30 mg once daily and medication kept under review
- Bloods will require monitoring as clinically indicated/recommended in the NICE *Heart Failure Guidelines*
- Please could the GP keep a check on the patients thyroid function
- Patient started on Ramipril 20mg bd. Please could the GP continue to up-titrate to maximum dose xx and monitor blood pressure and renal function in view of the mild left ventricular dysfunction

Changes to Medication (include reasons for change)

- Have started the patient on Lansoprazole 30 mg once daily because xxxx
- Discontinued Aspirin 75mg once daily due to xxxxxxx
- Continue with the current medications

Consultant Details	
Name	Mr A Bloggs
Designation	Consultant Cardiologist
Contact Number for queries	0161 123 4567
Seen in Clinic by:	
Name:	Mrs A Smith
Designation	SPR
Contact number for queries	0161 123 5678
Seen by Specialist Nurse (if applicable):	
Name	Mrs B Jones
Designation	Cardiology Nurse Specialist
Contact number of queries	0161 123 6789

Yours sincerely

Mr A Bloggs

Designation

Table 9: Specialty specific job plan recommendations

Example patient journey for non-sedated upper GI outpatient endoscopy clinic

Step No	Description	Minimum (minutes)	Max (minutes)
1	Patient referral is received in endoscopy department requesting an outpatient endoscopy		
2	Endoscopy administration team send appointment letter to patient		
3	Patient receives appointment letter		
4Δ	Patient arrives at outpatient reception desk	1	5
5≠	Details confirmed by receptionist	2	3
6Δ	Takes seat in waiting area	5	60
7≠	Admitted by admitting nurse (who may also be discharging patients). Health questionnaire	5	30
8Δ	Takes seat in waiting area. Transfer to recovery area	5	30
9≠	Pre-procedure checks in recovery unit (further review of questionnaire)	2	3
10	Baseline observations	2	5
11Δ	Wait in recovery for transfer to endoscopy suite	5	30
12≠	Transfer to endoscopy suite (?by trolley) (25 metres)	1	1
13	Consultant undertakes consent discussion and completes documentation	5	10
14	Position patient; prepare patient (observations checked again)	2	2
15	Throat spray administered	1	2
16	OGD endoscopy performed (the procedure)	3	10
17	Check observations post-procedure	2	3
18	Transfer to recovery (on or with a trolley, by nurses from endoscopy suite)	2	3
19	Recovery on a trolley: check observations	2	3
20	Transfer from trolley to waiting area		
21Δ	Wait for nurse to discuss post-procedure	5	120
22≠	Post-procedural advice; findings and report discussion by nurse	5	30
23	Home		

≠ = Bottleneck, Δ = Wait



Appendix C: Examples of one-stop clinic models

Streamlined outpatients and diagnostics

Streamlining outpatients and diagnostics makes it possible to have a one-stop assessment and preparation for surgery. Two examples of this at surgical units outside the UK are given below.

The Alfred Centre, a multispecialty elective centre in Australia, uses a one-stop approach for all preadmission surgical activities. Patients referred for elective surgery are scheduled for a single outpatient attendance where all consultations, diagnostic tests, consents and assessments are carried out. This includes scheduling postoperative appointments and tasks (for example, ordering equipment that will be needed post-surgery). It is supported by standardised care protocols/pathways for all standard procedures (168 currently). These detail exactly what tests, tasks and processes need to be performed at each patient encounter and the staff role responsible for performing and recording each task. In addition, the centre has appointed perioperative coordinators to oversee the full pathway and act as the patient's main point of contact, or navigator, ensuring all processes are completed and any issues followed up.

The Coxa Hospital for Joint Replacement in Finland also uses a one-stop approach for routine joint replacement patients from its main catchment area. It works closely with local community-based providers of diagnostics to ensure patients are referred with a complete set of diagnostic x-rays that meet its own specification. Coxa ensures the quality of this process by training and auditing the diagnostics providers, as well as specifying the images required. In addition, patients complete a standard form recording their personal information and medical history before their first outpatient appointment. The patient has a consultation with the surgeon and a specialist nurse, and a full pre-assessment, during a single attendance at the hospital. A network of community-based physiotherapists, trained (twice yearly) and supported by Coxa, provides further patient education and preparation in group classes.