

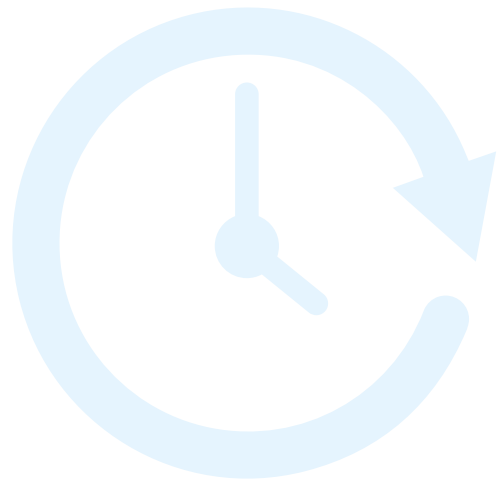


Royal College  
of Physicians

# Outpatients: The future

Adding value through  
sustainability





‘The future is already here – it’s just not evenly distributed’

**William Gibson**



# Outpatients: The future

Adding value through  
sustainability

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Professor Andrew Goddard

## Acknowledgements

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## The Royal College of Physicians

The Royal College of Physicians (RCP) plays a leading role in the delivery of high-quality patient care by setting standards of medical practice and promoting clinical excellence. The RCP provides physicians in over 30 medical specialties with education, training and support throughout their careers. As an independent charity representing over 35,000 fellows and members worldwide, the RCP advises and works with government, patients, allied healthcare professionals and the public to improve health and healthcare.

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# Foreword

From its inception 70 years ago, the NHS has had to evolve and innovate to meet the changing needs of the patients it serves.

As clinicians, we have all witnessed that change over the course of our careers – whether it’s the nature of the conditions with which our patients present, the increasing complexity and number of comorbidities we deal with, or the technology and knowledge available to us and to our patients. It’s therefore crucial we are prepared to make changes in the way we interact with patients to ensure we are always providing optimally effective and efficient care.

The vast majority of patient interactions with secondary care are through outpatient clinics.

While we know that patient satisfaction with clinicians remains high, it is also true that the various parts of the outpatient journey don’t always deliver the best experience – the too-often uninformative appointment letters; the wait for the appointment; the journey, often at inconvenient times, which can be a major source of stress for older patients; the waiting around in clinic; and, in some cases, the repetition of the entire process when the referral was misplaced or a visit to another specialty is required.

It’s hard to imagine there is no room for improvement.

It might sometimes appear to patients that the outpatient visit has been designed in clinicians’ interests rather than their own. But as this report sets out, clinicians are often just as frustrated with antiquated processes in their own clinics. And yet that is the kind of system that many of us find ourselves working

in for much of our careers – sometimes for no better reason than ‘that’s how it’s always been done’.

As this report states, the traditional model of outpatient care is no longer fit for purpose.

It’s the correct diagnosis, and the principles and recommendations suggested are the right prescription. But they mean nothing unless all of us, as a healthcare system, commit to embarking on and seeing through the course of treatment. While potentially painful, uncomfortable or disruptive, addressing this challenge is absolutely vital.

As we embark on a long-term plan for the NHS, setting out our ambitions for the next 10 years and our plans for tangible progress over the 5 years of the recently announced financial settlement, our patients and colleagues will not thank us if we collectively fail to bring outpatient care into the 21st century.

The time has come to grasp this nettle.

Doing so will mean honest conversations within our local health communities – with patients, with colleagues in primary care and community services, and with professionals across different specialties and providers – to ensure that reforms are in the interests of all concerned and sustainable in the long term.

This report provides an excellent basis on which to base those conversations, and on which to build the consensus for change.

**Professor Stephen Powis**  
National medical director of NHS England

# Executive summary

At the Royal College of Physicians (RCP) we believe in value and quality. A holistic approach to healthcare is required, considering all determinants of health, including access to healthcare, the environment and social determinants. As guardians of health we have a responsibility to not only treat those who are ill, but to help everyone avoid poor health.

The traditional one-model-fits-all approach to outpatient care is not able to keep up with growing demand and fails to minimise disruption to patient lives. Clinicians are increasingly frustrated with, and fatigued by, growing pressures from waiting lists and overbooked clinics. Patients are frustrated by poor communication and long waiting times.

Outpatient care represents the largest proportion of NHS contact with the public in the hospital setting, and should reflect the needs and abilities of the individuals it encounters. We must recognise the public as individuals with varying health needs, personal pressures and abilities to self-care or manage. It goes without saying that the patient voice needs to resonate loudly in any redesign processes to ensure that any improvements can stand the test of time.

Current methods of commissioning and metrics of quality and value are barriers to innovative practice. Providers are forced to strike a balance between financial remuneration and achieving targets, and delivering a service that meets the needs of patients without compromising their future health.

The time has come to re-evaluate the purpose of outpatient care and align those objectives with modern-day living and expectations. This requires trusts to be more flexible, and to allow patients more control over when and how they receive care.

A key element of the redesign process is better utilisation of the technology already available. It is up to national NHS bodies to provide guidance and support to enable this transformation. Action must be taken to ensure providers and clinicians are not penalised for introducing new models of care delivery, with the clinical value added being reflected in both commissioning and job templates. The benefits must be measured in terms of long-term value for patients, the population and the environment, not just short-term financial savings.

# Principles for good outpatient care

- 1** Demand for an outpatient service should be met by the available capacity. Capacity should take into consideration fluctuations in demand and staff availability throughout the year.
- 2** Interventions to reduce new patient demand should be targeted at all referral sources. They must not deter necessary referrals or damage professional working relationships.
- 3** Generic referrals should be pooled to minimise waiting times for appointments. Local consultants should review an agreed mix of generic and sub-specialty referrals according to demand.
- 4** All outpatient care pathways should aim to minimise disruption to patients' and carers' lives.
- 5** Clinic templates should allow for timing flexibility depending on case complexity and the needs of the patient. They should allow a realistic timeframe to conclude business and avoid frequent unsatisfactory visits.
- 6** Patients should be directly involved in selecting a date and time for an appointment. That can happen either in person, via telephone or electronically.
- 7** All clinical information should be available to both the clinician and patient prior to consultation. That includes notes, test results and decision aids.
- 8** Patients should be fully informed of what to expect from the service prior to appointments. That includes the aim of the appointment and expected waiting times.
- 9** Alternatives to face-to-face consultations should be made available to patients and included in reporting of clinical activity.
- 10** Patients should be supported and encouraged to be co-owners of their health and care decisions with self-management and shared decision-making.
- 11** Patients and community staff should be able to communicate with secondary care providers in a variety of ways, and know how long a response will take. This aids self-management, and provides a point of contact for clarification or advice regarding minor ailments.
- 12** Access to follow-up appointments should be flexible. Patient-initiated appointments should be offered, replacing the need for routine 'check in' appointments.
- 13** All care pathways should optimise their staff skillmix. Allied medical professionals and specialist nurses should be an integral part of service design.
- 14** Letters summarising a clinical encounter should be primarily addressed to the patient, with the community healthcare team receiving a copy.
- 15** All outpatient services should offer a supportive environment for training.
- 16** All outpatient-related services should promote wellbeing for staff and patients.

# Recommendations

- 1 Quality improvement projects should report on value as a whole, recognising the population and system effects of change as well as individual clinical outcomes.
- 2 Trusts should be remunerated on the basis of clinical value, not units of physical interaction or activity.
- 3 National guidance for the oversight of outpatients as part of local governance structures should be developed and integrated in all trusts alongside mortality and morbidity reviews.
- 4 Specialist organisations and charities should work collaboratively to oversee the development of signposting to resources that support outpatient consultations, eg patient decision aids, preventing duplication of efforts locally.
- 5 NHS leaders and local government need to provide clear and structured guidance on how to build partnerships with the voluntary and community sectors. This should be created and supported by case studies.



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# Introduction

The traditional model of outpatient care is no longer fit for purpose, ie specialty opinion, diagnosis and disease monitoring. It places unnecessary financial and time costs on patients, clinicians, the NHS and the public purse. Growing demand and expectations cannot be, and are not being, met by the status quo. It is no longer acceptable to solely consider the cost of clinical interventions in relation to individual health outcomes.

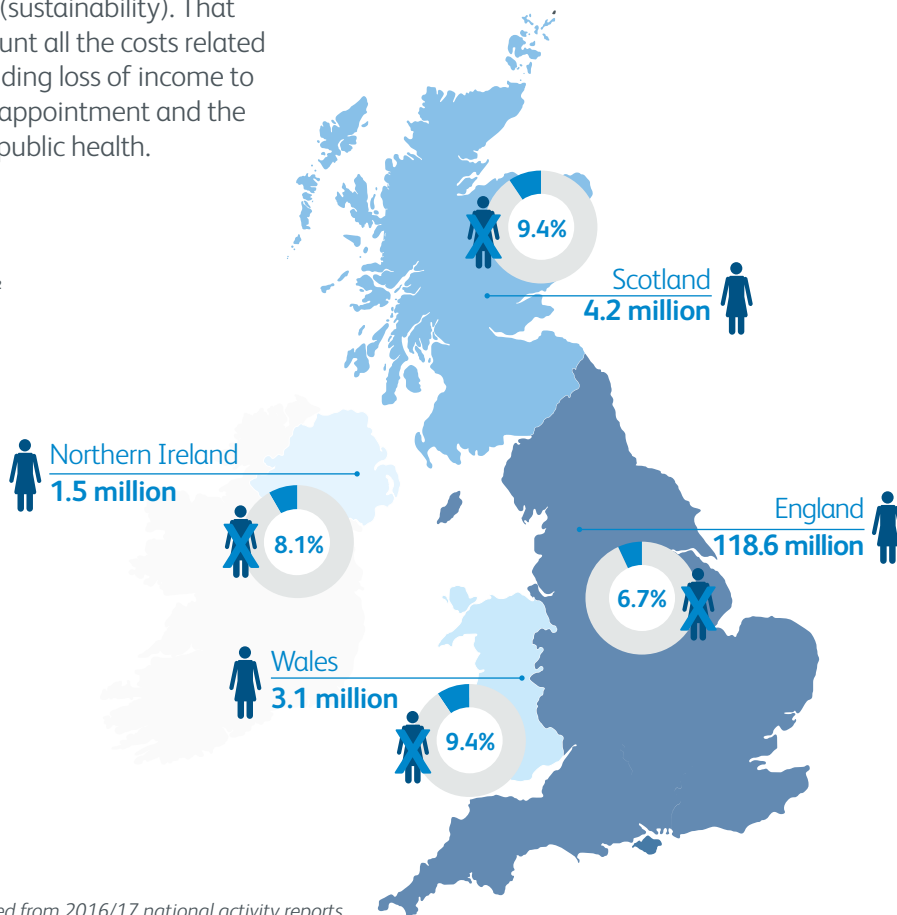
In order to continue to deliver high-quality healthcare, we must start to think in terms of value and sustainability; identifying a balance between cost and outcomes (value) and long-term impacts (sustainability). That means taking into account all the costs related to an intervention, including loss of income to a patient attending an appointment and the impact of transport on public health.

## UK outpatient activity

Outpatient appointments across the UK account for almost 85 % of all hospital-based activity (excluding A&E). Demand for outpatient appointments continues to rise at a rate faster than the growth of the UK population.<sup>1</sup> Outpatient appointments in England alone have almost doubled in the past decade, now reaching over 118 million per year.

### Outpatient activity in the UK<sup>2</sup>

-  Total outpatient appointments per year
-  'Did not attend' rate



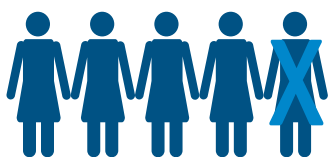
*These figures have been extracted from 2016/17 national activity reports.*

**85%** of all UK hospital-based activity (excluding A&E) is accounted for by outpatient appointments.

Despite local initiatives and national campaigns to improve efficiency – mainly aimed at reducing ‘did not attend’ (DNA) rates – one in five potential appointments in England, and one in four appointments in Wales, are cancelled or reported as DNA. The majority of cancellations in England are hospital-instigated, demonstrating further opportunities for productivity and efficiency gains.

Without a considerable increase in the professional workforce, the traditional model of outpatient care cannot provide the capacity required to keep pace with demand. But more importantly, that model does not represent value for patients or providers. How we define value plays a crucial part in the design of future services and the metrics used to evaluate them.

With pressures on the UK health service increasing, and further demands for cost reduction forecast, it is a challenge to maintain care that meets the needs of the population and uses resources efficiently.



**One in five** potential appointments in England, and **one in four** appointments in Wales, are cancelled or reported as DNA.

Simplified representation of traditional outpatient care model



## What is value?

There are many definitions of *value*, the most commonly cited being Porter’s definition of health outcomes per pound spent.<sup>3</sup> But within the NHS, value refers to the allocation of resources to the most effective care which is free at the point of delivery. While closely related, *quality* examines the way in which a particular healthcare interaction takes place, measured against the Institute of Medicine’s six domains of quality.<sup>4</sup>

Using value as an organising principle for commissioning services increases the efficiency of resource allocation – as delivering high-quality but low-value services consumes more resource than moderate quality but high-value services.<sup>5</sup> Value-based decisions take into account not only what activity can be minimised but also what can be avoided. This prevents unnecessary waste for the patient and provider, such as patient travel and multiple attendances.

Neither value nor quality evaluate the non-clinical implications of the delivery of healthcare. Such implications include the population health outcomes of an activity, or the loss of income due to having to attend an appointment.

For healthcare to be truly sustainable, we must consider social and environmental factors, as well as financial ones. Such an approach can reap long-term health benefits, which are often unrealised when we adopt a purely financial perspective.

These include a stronger focus on *preventative medicine and early diagnosis, reducing healthcare utilisation, and educating patients to self-manage.*

The RCP’s approach to quality aims to identify value by incorporating clinical and non-clinical impacts at an individual and population level over time. This maximises opportunities to improve individual patient outcomes, preventative population health, non-clinical patient value and, ultimately, financial resource.

This report illustrates how adopting a different viewpoint to examine well-established norms of clinical practice can lead to transformational change in care delivery. It can provide opportunities to increase value, improve quality and protect resources.

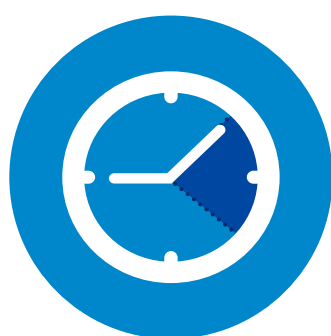
### The RCP’s approach to quality



## Outpatient services: experiences of doctors



of doctors say 10–20% of their new patients didn't need to come to an outpatient clinic at all



57%

of outpatient clinics finish late every clinic or at least once a week

35%

of outpatient clinics provide an alternative to face-to-face follow-up appointments



28%

of doctors say 10–20% of their follow-up patients could have been seen using an alternative to face-to-face consultation



# Purpose of outpatient services

The overarching purpose of outpatient care has always been to allow patients who don't need to be in hospital to seek a specialist opinion. But what can be achieved in an outpatient setting has changed significantly over time. Improved survival, advances in diagnostics and treatments, new modes of communication, changing patient expectations, emerging allied healthcare professions, and less hospital-centric models of care have had a huge impact. How outpatient care is delivered has not kept pace. Coupled with growing demand, it has resulted in a system under pressure.

It is unclear if the traditional model of outpatient care is meeting the needs of its patients. Arguably, outpatient care was never designed with the patient at its centre. The model of referral from primary care was introduced in the mid-18th century, before the genesis of the NHS, to protect the income of then 'family doctors'. This was in response to wealthy members of the population abusing free healthcare services provided for poor members of society, and increasing attendances. Rising demand is often used as a justification for this traditional 'gatekeeper' model.

Patients have eloquently described how the doctor-patient interaction in the traditional outpatient model only represents 'the tip of the tedious iceberg' which stands between a patient and what we consider to be a quality interaction.<sup>6</sup> Their insights highlight system failures that prevent effective communication and patient flow, hindering efficiency and patient experience.

## Experiences of the frontline

The RCP held a number of focus groups to gather views on the current state of outpatient care in the UK. We spoke with trainee doctors, consultants and patients.

All groups largely agreed that the purpose of outpatients was to deliver a specialist opinion to support the diagnosis and management of conditions, or oversee management in more complex patients, preventing admissions. The function of individual consultations could vary depending on the stage of a patient's journey.

### Functions of outpatient care



#### New patient appointment

- > Specialist opinion
- > Diagnosis
- > Examination
- > Initiate investigations
- > Review following discharge or prevent admission



#### Initial follow-up

- > Discuss investigation results
- > Perform a procedure
- > Promote healthier lifestyle
- > Safety net to ensure results reviewed



#### Routine follow-up

- > Monitor treatment
- > Detect deterioration
- > Prevent admission
- > Meet patient expectations
- > Maintain patient access to secondary services

**20%** of pensioners who attended an outpatient appointment reported feeling worse afterwards because of the stress involved in the journey alone.

Clinical staff and patients shared similar frustrations with outpatient care, but from their individual perspectives. Both were impacted by the unrelenting demand for outpatient care, in the form of either long waiting times or being rushed. Both reported wasted time when test results or notes weren't available. And both recognised the benefit of alternatives to face-to-face consultations in appropriate settings, such as telephone or videoconferencing.

For outpatients, an appointment is often their main opportunity to learn about the options for management and ask questions. It should be a positive step on their journey. But delayed appointments, preceded by inefficient booking processes and long waiting times, can add to already existing anxiety. The charity Age UK found that a fifth of pensioners who attended an outpatient appointment in the past year reported feeling worse afterwards because of the stress involved in the journey alone.<sup>7</sup>

Research from the Picker Institute shows that a patient's satisfaction with their outpatient visit is most likely to be influenced by the organisation of the department, being treated with respect and dignity and having the reason for their attendance addressed, in that order.<sup>8</sup> Also important are their interaction with the doctor, cleanliness, and the information they received about discharge, treatments, tests or medications.

Experiences from members of the RCP's Patient and Carer Network (PCN) illustrate a failure to adopt new technology to improve access to and efficiency of specialist care. They express a frustration with 'the

heavy reliance on traditional face-to-face consultations, which are often rushed with little opportunity for questions or discussion', and the fact that reaching a diagnosis and treatment plan required 'several hospital visits, over several weeks ... prolonging uncertainty and wasting time'.

The PCN members said patients wanted to be empowered to take more responsibility for their own health and care.

Patients can help improve efficiency, join up care and phase out any last remaining hints of paternalism in how care is delivered.

Clinicians more familiar with the organisation of local service delivery reported two large barriers to changing current models of outpatient care:

- > the large discrepancies in the tariffs associated with the different consultation types
- > current job plans not recognising alternative consultations as clinical activity.

These can have considerable implications for trust finances and add to the workloads of an already overstretched workforce.



Delayed appointments, preceded by inefficient booking processes and long waiting times, can add to already existing anxiety.

With regard to training, trainee doctors and consultants had conflicting opinions on whether outpatient services offered training opportunities. Regular rotation of trainees often removes the opportunity to follow up patients, denying patients continuity of care.

This can leave both parties feeling dissatisfied. But planned and well-designed outpatient services can offer considerable training benefits and consistency for patients.

### Key messages

- > **The functions that outpatient services are expected to deliver are increasing in response to a drive to keep patients out of hospital, and advances in diagnosis and treatments.**
- > **Both patients and clinicians are feeling the impact of an over-pressurised system that is struggling to meet demand.**
- > **Patients want to be given more control over their own care and would be willing to be utilised as a resource if it would help improve efficiency.**
- > **Trainee clinicians feel training opportunities are being missed in an attempt to keep up with demand.**



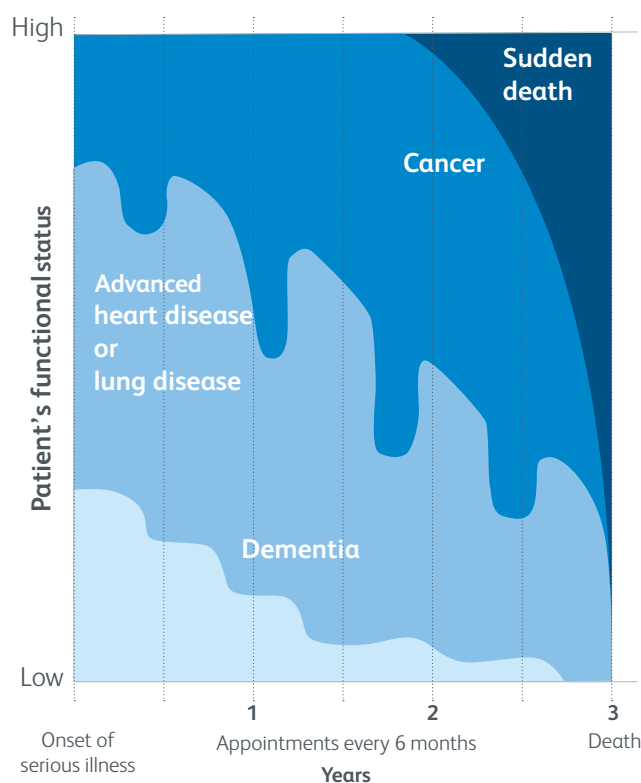


# Delivering care

Access to outpatient care requires referral from a patient's general practice or another specialist consultant. On receipt of the referral a 'new' appointment is issued for an initial consultation. A series of further appointments follow investigations or the instigation of a new treatment, monitoring progress and adapting management plans according to new information.

**Fig 1 Examples of different disease courses with a typical 6-monthly follow-up schedule superimposed**

Adapted with permission from BMJ Publishing Group Ltd.



After a diagnosis and stable management plan is in place, 'monitoring' follow-up appointments are issued, often at arbitrary time intervals. These are arbitrary as evidence demonstrates that disease progression is highly unlikely to follow a similar pattern of deterioration or exacerbation (Fig 1).

The outpatient patient pathway can largely be broken down into three stages:

- > referral
- > initial investigation and management
- > monitoring and future care planning.

How each of these stages is coordinated can have significant repercussions for patient satisfaction, quality of care, clinical workload (productivity and efficiency) and, ultimately, value provided.

## Stage 1 – Referrals

### Understanding activity

It is important that capacity meets demand for outpatient services. Capacity planning must take into account the volume of new referrals and follow up appointments – which average a 2:1 (follow-up: new) ratio across the UK – and workforce availability.

Demand for a service, and its capacity, are not constant. Effective service planning must take into account fluctuations in demand and workforce availability (eg due to leave entitlements) throughout the year. Services should plan to run at core capacity (reliably available resources week-to-week) but with planned additional capacity available during unusual high demand periods.

A service should not rely on flexible or additional capacity for any extended period of time as this is unsustainable and ultimately unsafe as staff begin to fatigue.<sup>9</sup> *A guide to good practice: outpatients* by the NHS Wales 1000 Lives Improvement project provides a coherent and practical description of how to analyse activity and support effective planning.<sup>10</sup>



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#### Organising principle

Demand for an outpatient service should meet the available capacity. Capacity should take into consideration fluctuations in demand and staff availability.



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#### Organising principle

All outpatient-related services should promote wellbeing for staff and patients.



# 50%

 of outpatient referrals are received from general practice.

## Referral management

Numerous interventions to reduce referral volume and increase appropriateness have been trialled in an attempt to manage unrelenting demand.<sup>11</sup> A King's Fund report concluded that more resource-intensive options, such as referral management centres and clinical triage, were unlikely to be both cost-effective and clinically effective.<sup>12</sup>

Successful referral management systems typically included a route for feeding back to the referral source. Feedback could be provided ad hoc to individuals, or through a more formalised process of audit and peer review. GPs have been found to welcome this feedback, allowing them to develop their practice and referral quality.<sup>13</sup>

Referral guidelines or protocols, appropriately completed, have been shown to improve the quality and appropriateness of referral letters. However, less than 50% of patient referral sheets are found to be fully completed.<sup>14</sup>

Designated email or telephone advice lines provide an alternative approach to supporting primary care doctors and other referring consultants. They have been shown to both reduce outpatient referrals and increase referral appropriateness.<sup>11</sup> As well as providing personalised advice for the patients, they provide an alternative source for educational input for community healthcare workers.

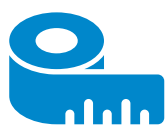
Job plans for secondary care staff and commissioning structures need to recognise these alternative modes of delivering secondary care opinions as clinical activity, ensuring trusts are not financially penalised and staff are not overworked for delivering a more efficient and accessible service.

Any intervention must be sure not to discourage referrals, which could delay patient care and damage professional working relationships. However, equally, overreferral can expose patients to unnecessary harm, as well as being costly. Any interventions to reduce referral volume should be translatable across all referral sources, not solely aimed at primary care. In England, just over 50% of outpatient referrals are received from general practice and the remainder from other consultants (27%, including A&E) or other unknown sources (22%). Trends have shown a faster growth in outpatient referrals from other consultants, compared with primary care, negating any reduction in GP referrals.<sup>12</sup> The RCP *Referring wisely* report highlights referral patterns between secondary care physicians and what conditions commonly require specialist input or should be considered within the domain of all physicians.<sup>15</sup>



### Organising principle

Interventions to reduce new patient demand should be targeted at all referral sources. They must not deter necessary referrals or damage professional working relationships.



Care delivery should be **personalised** to the needs of the patient.

## Waiting list management

Despite efforts to match capacity and demand, a waiting list of some form will always remain. Good practice guidance from both the NHS Wales 1000 Lives project<sup>10</sup> and the Royal College of Surgeons<sup>9</sup> promotes the use of pooled generic waiting lists for specialties, with each consultant seeing an agreed case mix of generic and sub-specialty referrals in their clinic. Queuing theory supports this approach, using mathematical science to explain that a single queue with multiple outlets will ultimately have a shorter waiting time than multiple smaller queues.

NHS Wales 1000 Lives also promotes the use of waiting list validation. This involves a periodic review of those waiting to be seen to ensure patients' circumstances haven't changed and they still require an appointment. Their report discusses the different approaches, timings and opportunities to introduce validation.



### Organising principle

Generic referrals should be pooled to minimise waiting times for appointments. Local consultants should review an agreed mix of generic and sub-specialty referrals according to demand.

## Stage 2 – Initial investigation and management

### Maximising efficiency and minimising disruption

Efficiency of outpatient care is often considered from the perspective of the provider, not the patient. Attending an appointment only to find an important piece of information is unavailable is sadly a familiar situation, which can delay care as well as wasting patient and clinical time.



My experience is of shocking inefficiency at times: notes missing, results of investigations not available, referral letter missing...'

**Consultant physician**

Care delivery should be personalised to the needs of the patient, and recognise the costs incurred by the patient, such as missed work, childcare, parking charges and travel time. These costs increase when appointments don't run to time, are unnecessary or require multiple attendances. These encounters offer low value if they don't progress care in a timely manner. Different styles of clinic that offer diagnostics and management consultations in one attendance offer improved efficiency from both the patient and provider perspective. These clinics may be designed around a symptom, eg breathlessness clinics, and include input from multiple specialties, or around a common condition, eg asthma clinics with lung function testing. Reducing the number of steps in a patient journey can minimise delays in care and improve patient experience by minimising disruption to their lives.<sup>9</sup>

Patients should be **treated as partners** in all decisions relating to their care.



### Organising principle

All outpatient care pathways should aim to minimise disruption to patients' and carers' lives.



### Organising principle

All clinical information should be available to both the clinician and patient prior to consultation. That includes notes, test results and decision aids.

Patient appointments slots should reflect the complexity of the patient's needs and allocate adequate time for them to be addressed, avoiding frequent unsatisfactory visits. They should also factor in time for clinicians to review previous notes and complete relevant documentation relating to the consultation. Realistic templating of appointments avoids overrunning clinics and appointment delays, which can impede patient satisfaction. DNAs have been shown to be closely linked with patient dissatisfaction following late-running clinics.



### Organising principle

Clinic templates should allow timing flexibility depending on the complexity and needs of the patient. They should allow a realistic timeframe to conclude business.

DNAs can disrupt the flow of a clinic and waste resources. To offset inefficiencies from non-attendances, clinic templates sometimes allow for appointment overbooking equal to the average number of DNAs. The overbooked appointments rarely correlate with actual DNA timings, resulting either in longer waiting times for patients who do attend, or periods of slack time for clinicians. This is frustrating and rarely improves efficiency. Non attendances should be prevented in the first instance rather than employing offsetting techniques.

The Care Quality Commission's (CQC's) outpatient satisfaction survey and NHS Improvement both say the most commonly reported modifiable reasons for DNAs are related to administration or convenience (listed below). The majority of these could be resolved by removing the need for the patient to travel, or including the patient in the selection of a time and date for their appointment.



## Alternative consultation methods

can allow the same clinical input to be provided in a more convenient manner for the patient.

### Commonly reported reasons for DNAs

#### Administrative factors

- > Clerical errors or communication failures
- > No longer needing to attend
- > Difficulty in cancelling appointments
- > Poor appointment notification design
- > Lack of notification or short notification
- > The appointment booking process

#### Convenience factors

- > Distance needed to travel or cost of travel prohibitive
- > Getting time off work or childcare issues
- > Organisation of clinics
- > Time or day of appointment may be inconvenient
- > Transport/parking



#### Organising principle

Patients should be directly involved in selecting a date and time for an appointment. This can happen in person, via telephone or electronically.

### Skillmix

Many of the functions delivered in outpatient services, previously considered to be in the domain of doctors, can now be safely delivered by appropriately trained medical associate professionals (MAPs), such as physician associates and nurse practitioners.

Including MAPs in the delivery of outpatient care can increase capacity and continuity of care for patients,<sup>16</sup> since otherwise the care would be provided by trainees, who rotate at a similar frequency to follow up timings.

To reflect this change, the recent RCP report on safe staffing<sup>17</sup> divides clinical work into three tiers dependent on clinical autonomy. Similar considerations should apply to the outpatient setting where the majority of patient–clinician interactions take place.



#### Organising principle

All care pathways should optimise their staff skillmix. Allied medical professionals and specialist nurses should be an integral part of service design.

### Pre-consultation communication

Patients should be treated as partners in all decisions relating to their care. They should be sent information relating to their consultation or told where to find it. Such information helps prepare them, manage their expectations, and ensure their needs or goals are met.

Patient decision aids are designed to help patients understand relevant evidence-based information, clarify their attitudes towards potential benefits and harms, and aid communication between the clinician and patient. They can come as leaflets, videos or web-based tools and support patients to make decisions regarding two or more equally relevant options by presenting evidence in an unbiased way.

Patients who have used patient decision aids, with or in preparation for a consultation, feel more knowledgeable and better informed and usually take a more active role in decision making, which often correlates with better outcomes and experiences.<sup>16, 18</sup>

The International Patient Decision Aids Standards have produced criteria for judging the quality of patient decision aids.<sup>19</sup> Use of resources to support consultations, such as patient decision aids, should feature more heavily to nurture greater patient involvement in the decision making process.

**Recommendation:** Specialist organisations and charities should work collaboratively to oversee the development of signposting to resources that support outpatient consultations, eg patient decision aids, preventing duplication of efforts locally.



### Organising principle

Patients should be fully informed of what to expect from the service prior to appointments. That includes the aim of the appointment and expected waiting times.

### Post-consultation 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 to maintain safe and effective care.

All outpatient care episodes should be summarised in a letter for both the patient and the community care provider. This acts as the primary form of communication and has huge importance for conveying information between teams and as a documentation of events and discussions. The Professional Record Standards Body (PRSB) has produced standards<sup>20</sup> for outpatient letters endorsed by a plethora of clinical bodies and organisations. These also advocate for best practice to dictate that clinical letters be written directly to the patient and copied to the GP, rather than the reverse.



### Organising principle

Letters summarising clinical encounters should be primarily addressed to the patient with the community healthcare team receiving a copy.

## Stage 3 – Management and future care planning

### Alternatives to face-to-face consultations

Follow-up appointments are organised to review investigation results or monitor progress. Alternatives to face-to-face appointments could be utilised where appropriate to support healthcare delivery. Alternatives include remote monitoring and telephone or video-link appointments, which can trigger a face-to-face appointment when clinical or patient need arises. Alternative consultation methods can allow the same clinical input to be provided in a more convenient manner for the patient. There has been some hesitancy to adopt these alternatives due to concerns with locally available IT infrastructure and support, data protection, loss of remuneration from clinical commissioning groups and discrimination against patients less comfortable with necessary technology. Research qualifying the safety and appropriateness of non-face-to-face consultations is increasing and is discussed more in the technology section. Any alternative consultations which offer the same clinical input and outcome as a face-to-face consultation should be recognised as clinical activity in job planning and commissioning structures.


As well as improving convenience for patients, alternative consultation methods can have a significant impact on population health by reducing NHS-related travel. On any one day NHS-related traffic accounts for 5% of road traffic in England alone.\* This equates to driving around the equator over 1,000 times a day. This not only releases noxious chemicals, reducing air quality and affecting health, but also contributes to busy roads and the resulting road traffic accidents. Using the Sustainable Development Unit's *Health Outcomes Travel Tool* (HOTT), the impact of NHS-related traffic can be quantified in terms of environmental, financial and health outcomes. This shows that NHS-related traffic is associated with:

- > 753 deaths from air pollution
- > 8,844 life years lost from air pollution
- > 85 deaths and 722 major injuries from accidents
- > £650 million NHS expenditure.

When evaluating the value offered in the delivery of a health service, we should be capturing data looking at the consequences beyond financial and individual patient outcomes. Information relating to disruption caused to patient lives, financial implications for patients and environmental impacts should be included. These are discussed further in the section on metrics for measuring success.

\* [www.sduhealth.org.uk/areas-of-focus/carbon-hotspots/travel.aspx](http://www.sduhealth.org.uk/areas-of-focus/carbon-hotspots/travel.aspx)





**5%** of road traffic in England is NHS-related.

### Telephone and video consultations

These appointments are not designed to totally replace face-to-face consultations, but are able to deliver some of their functions via video-link, eg Skype for Business, or the telephone. The benefit of these appointment styles is reduced disruption to patient lives and a reduced need for hospital infrastructure (eg clinic rooms, parking and support staff). They can also increase the resilience of a service, particularly in response to travel disruption. During the 2018 snow storms the 'NHS near me' programme run in the Scottish Isles was able to deliver the majority, if not all, of its outpatient appointments using their established telemedicine clinics. This prevented cancellations and ensuing backlogs from rescheduling.

Patient selection and expectation management is crucial to ensure that satisfaction and care is not compromised. Patients are being reported to be 'embracing new technology and increasingly expect their care to be supported by it', including older patients.<sup>21</sup> Case studies of successful delivery of alternative consultations and effects on service delivery (including in older people) are described in our [case study supplement](#).

### Remote monitoring

Remote monitoring is an umbrella term used to describe any technology that allows patients to submit personalised data. This data can be used to reassure and support patients to achieve health goals through self-management (eg step counters for cardiac rehabilitation) and allow data transfer back to clinical teams for interpretation and 'clinical monitoring from a distance' (eg implantable cardiac devices can collect and transmit cardiac data through a compatible network accessible by clinicians). Portals used for data sharing can alert clinical teams to potential clinical problems, triggering more formal review, and patients can submit queries electronically via the portal. They have also been shown to reduce healthcare use, eg emergency attendances, compared with standard face-to-face follow up. Care delivered in this manner can replace routine face-to-face follow-up appointments with ones triggered by patient need.

Case studies from Lancashire and South Cumbria (using remotely monitored non-invasive ventilation), and Surrey (for inflammatory bowel disease services) are described in our [case study supplement](#).



### Organising principle

Alternatives to face-to-face consultations should be made available to patients and included in reporting of clinical activity.



**8,844** life years are lost from air pollution.



### Organising principle

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Access to follow-up appointments should be flexible. Patient-initiated appointments should be offered, replacing the need for routine 'check in appointments'.

### Self-management

With an increasing number of people living with chronic disease and for longer, there are both clinical and economic reasons to educate and promote supported self-management. Self-management provides patients with the skills and confidence to recognise, treat and manage ongoing health problems, without additional medical attention.

Self-management has been shown to have favourable impacts on health outcomes and behaviours by reinforcing the role and responsibility of the patient for their own health.

Many prevalent chronic conditions, such as heart disease, chronic obstructive pulmonary disease (COPD) and diabetes, are lifestyle-related and share common challenges associated with their management.

These include dealing with symptoms and disability; the need for monitoring; the requirement to manage complex medication, nutrition and exercise regimens; and the need for patients to adjust to the psychological and social demands of chronic disease and engage in effective interactions with healthcare providers. Randomised controlled trials comparing community-based self-management with care as usual have demonstrated improved health outcomes and persisting self-efficacy to self-manage.<sup>22,23</sup> For these reasons self-management is listed as one of the six essential elements of the Chronic Care Model, which seeks to improve quality and health outcomes by focusing on system level changes, in appropriate disease management.<sup>24</sup>

Initiatives are already being set up nationally to support self-management. These include early identification and management of exacerbations, and invasive programmes such as home immunotherapy which teach patients to self-infuse. Recent reports in the UK have shown that these programmes are safe and effective following 10 years of monitoring.<sup>25</sup> Case studies looking at self-management in renal care, inflammatory bowel disease and home immunotherapy are described in our [case study supplement](#).

One of the preconditions of helping patients to self-manage is the availability of an appropriately trained member of staff to educate and support them.<sup>26</sup> Training could be provided through group sessions, which would develop patient confidence in self-management and introduce them to a potential peer support network, both bettering overall experience of care.

As with remote monitoring, patients should have simple and reliable points of communication with secondary care services to trigger reviews or conversations if they have any problems or issues. This could be through an email service or telephone helpline with a guaranteed response time. The guaranteed response time allows a threshold of urgency to be set, so those using the advice service understand that if faster response is required they should use an emergency care pathway. Establishing this form of advice service could lead to the complete abolishment of standardised follow-up appointments as they currently exist, replacing them with patient-initiated appointments according to need. These models have also been referred to as 'see on symptom' or 'patient-activated care'. This service could be extended to community teams, potentially removing the need for referral in the first place.

Case studies of integrated care models from West Berkshire and Oxfordshire that aid patients to manage their own care are described in our [case study supplement](#).



### Organising principle

Patients and community staff should be able to communicate with secondary care providers in a variety of ways, and know how long it will take to receive a response.



### Organising principle

Patients should be supported and encouraged to be co-owners of their health and care decisions with self-management and shared decision making.

## Voluntary and community sector programmes

Community programmes and voluntary groups that promote healthy behaviours and improve health outcomes should be supported and utilised by secondary care teams. Programmes such as specialist singing groups for lung health can improve quality of life, remove social isolation, improve respiratory function and reduce healthcare utilisation, eg admission, acting as a form of pulmonary rehabilitation.<sup>27,28</sup>

The NHS *Five Year Forward View* highlighted the need for stronger partnerships to be built with voluntary, community and social enterprises, recognising its value in building new relationships between the community and patients. In an overstretched healthcare system it also extends the potential workforce available to support and care for patients.

However, formal guidance on appropriate use and integration with community and voluntary programmes is required to encourage partnerships and alleviate anxieties.

**Recommendation: Structured guidance on how to build partnerships with voluntary and community sectors should be created and supported by case studies.**

### Administrative support and patient coordinators

For any system to work, the flow of communication between healthcare staff (primary and secondary) and patients must work seamlessly. This can prevent duplication of effort or wasted time by guaranteeing information is available in a timely and appropriate manner, and offer reassurance to patients that they have a reliable and helpful point of contact if there are any concerns or problems. Traditional administrators can often be an undervalued resource, providing much-needed consistency and system navigation for patients. Recently, many trusts have moved towards pooling administrative resources, causing both patients and healthcare professionals to lose a cornerstone of consistency and coordination. Dedicated non-clinical support staff develop a key understanding of clinical processes and pathways related to the specialist area that generic administrative teams cannot be expected to learn.



# Technology and outpatient services

New technology may help to make outpatients more efficient. But it is important to identify problems and challenges first, then look for the right solution. Digital tools are available to both augment the conventional outpatient appointment and support alternative services.

These include information processing or communication tools that use fixed or mobile computer systems and wireless, mobile or physical networking.<sup>29,30</sup> When digital solutions are implemented both the clinical and patient perspectives must be considered.<sup>31</sup>

Here, some of the challenges of outpatient care are considered and potential technologies to alleviate them discussed.

## Some challenges in outpatient care and technologies that could address them

Challenge	Potential technology solutions	Evidence, issues, comments
Patients who DNA	SMS reminders to attend outpatient appointment	Systematic reviews show these to be highly effective, and SMS is already widely used across the NHS <sup>32</sup>
Poorly prepared patients at face-to-face consultations	Patient access to a shared electronic health record (personal health record, PHR) to support preparation for outpatient visit	Offers patients the potential to read their clinical notes, annotate data, and ask more targeted questions <sup>33</sup>
Selecting the right patients for face-to-face or remote consultations	Web forms or apps completed by the patient before consultation to capture essential data. These drive branching questionnaires based on diagnostic algorithms, referral tools or risk scores to help triage the patient before consultation	Forms need to be well-designed, based on evidence and tested for accuracy <sup>34</sup>
Maximising the clinical utility and value of the consultation	Web forms or apps to capture patient data before the encounter, often included as part of a PHR	Can be completed at home or in the waiting room. Can support preliminary risk calculation or decision support, eg dyspepsia <sup>35</sup>
	A concise, complete, well-structured discharge summary of inpatient stay assembled using digital dictation tools or automatically summarised from the electronic patient record <sup>36</sup>	Needs to conform with PRSB discharge summary standards <sup>37</sup>

Challenge	Potential technology solutions	Evidence, issues, comments
<p>Maximising the clinical utility and value of the consultation</p>	<p>Digital dictation and automated transcription using speech recognition software is used predominantly with proprietary software in imaging departments. Speech recognition is less accurate than human transcription but can dramatically reduce turnaround times. During report creation, doctors need to spend more time on dictation and correction than with human transcription and major errors occur up to three times more frequently in front-end use (ie real-time speech recognition). During report transcription in back-end use (ie where a recorded dictation is automatically processed and passed on for correction to a human transcriber along with the recording), a potential increase in productivity of transcribers was noted. It is hard to identify for which medical specialties and clinical activities the use of speech recognition will be of most benefit<sup>38</sup></p>	<p>Speech recognition can be successfully implemented with sufficient training of users and consideration for the impact on medical record keeping.<sup>39</sup> This leads to efficiency savings in imaging departments and improved productivity in outpatient services, but may not be as accurate as human transcription. However, with only minimal training of users and secretarial staff, there was no increase in the error rate over conventionally produced correspondence.<sup>40</sup> More research is required into the application of automated transcription across different medical specialties</p>
<p>The need to reduce patient journeys because of carbon footprint, patient frailty, disrupted caring responsibilities etc</p>	<p>Remote consultations ('telemedicine', 'teleconsultation') using telephone, ISDN videoconferencing or online videoconferencing, eg Skype; may also include transmission of medical images (eg teleradiology for stroke) or other key data, eg physiological monitoring</p>	<p>Different technologies have different costs and performance, reliability and confidentiality. Some remote consultations may link the hospital doctor directly to the patient (eg prison telemedicine) while others include clinicians at both ends (eg minor injury unit telemedicine). All have potential benefits to the patient and the environment, eg one study of remote video found: 'no differences in the quality indicators of medication compliance, knowledge of disease, or self-care ability; patient satisfaction; or service use, indicating that video calling is an acceptable substitute for face-to-face care. Cost savings were attributed to fewer hospitalisations while the quality of care remained stable.'<sup>41</sup> In asthma, remote follow-up consultations achieved the same health outcomes as face-to-face follow-ups.<sup>42</sup> Meta-analysis of four studies suggests that telehealthcare reduced the risk of admission to hospital. Some of the benefits may be more relevant to patients who live in remote areas where it is difficult or expensive to access services. However, some patients cannot use it 'due to severe illness, the physical condition of the home, lack of interest, or concerns about the equipment', suggesting the importance of pre-screening to determine eligible patients<sup>41</sup></p>

Challenge	Potential technology solutions	Evidence, issues, comments
Poor patient recall of the consultation once they leave	Digital audio or video recording of an in-person or remote consultation to allow patient and/or friends and family to rehearse it/review updated PHR	May support patient discussion with their carer, partner or family and enhance adherence. An archived recording may also be useful to hospital later, to defend any medicolegal claims <sup>43, 44</sup>
Poorly controlled long-term conditions with frequent outpatient visits	Remote monitoring of people with long-term conditions using a proprietary telecare platform ('home hub') with connected sensors and question-answering tools	Good evidence of effectiveness in long-term conditions, eg diabetes, <sup>31, 45, 46</sup> asthma, <sup>47</sup> high blood pressure, <sup>48, 49</sup> and heart failure. <sup>50</sup> However, a proprietary home hub may not allow monitoring at work, supermarket, on holiday etc and their presence in the home may be considered stigmatising by some patients
	Remote monitoring using a generic, portable platform, eg a mobile phone app, wearable or similar	Provides greater flexibility; more likely to be accepted and provide useful data, especially if integrated into PHR
Poor drug adherence following the consultation	Improving drug adherence using shared decision-making tool or patient decision aid during or after the consultation	Helps patients to better understand the benefits and risks of therapy and act on this. Good evidence of benefit in asthma. <sup>42</sup> Web-based decision aids perform similarly to printed or video formats for the decision-quality outcomes. <sup>51</sup> However, there was no evidence of benefit on drug adherence in diabetes <sup>52</sup>
	Remote monitoring of drug adherence with SMS reminders	These reminders may not work if patient remains sceptical of the need for or dosage of therapy. Limited evidence to support these tools. There was evidence of improved adherence with taking medicine, following diet and physical activity advice using mobile SMS and/or voice calls <sup>53</sup>

ISDN, independent subscriber dial-up network; PRSB, Professional Records Standard Body; SMS, short message service

**Box 1 Diabetes appointments via webcam in Newham (DAWN) project<sup>54-56</sup>**

<b>Organisation</b>	Diabetes service at Newham, East London
<b>Technology</b>	Telemedicine – Diabetes care (2015)
<b>Key results</b>	<ul style="list-style-type: none"> <li>&gt; 62% of people were web-based consultations agreed; 82% were under 50 years of age.</li> <li>&gt; 1,644 appointments (doctor and nurse) over several years with 104 patients.</li> <li>&gt; DNA rates for Skype follow up was 13%, compared with 25% for non-Skype methods. The service is particularly popular in the young adult clinic, which had the highest DNA rate pre-intervention.</li> <li>&gt; Average haemoglobin A1c reduction is 5 mmol/mol in those who repeatedly use Skype, suggesting greater compliance with treatment/self-management in this self-selected group.</li> </ul>
<b>Issues and lessons learned</b>	Initial savings are modest, and achieved through increased productivity; however, more substantial savings could follow with an increased volume of online contact.

**Box 2 My Medical Record at University Hospital Southampton NHS Foundation Trust<sup>57-59</sup>**

<b>Organisation</b>	University Hospital Southampton NHS Foundation Trust (UHS)
<b>Technology</b>	Personal Health Record – Renal and prostate care 2016
<b>Key results</b>	<ul style="list-style-type: none"> <li>&gt; Used by 3,000+ patients to gain instant access to information held in UHS' clinical and administrative systems, including upcoming appointments, test results and healthcare advice, and share it securely with family members and healthcare providers.</li> <li>&gt; Patients can keep daily health diaries, upload data from home medical devices, and communicate remotely with clinicians, often thereby saving a trip to the hospital.</li> <li>&gt; UHS' prostate cancer service uses My Medical Record for test results, patient information and interactive web access to the clinical team.</li> <li>&gt; A specialist nurse can remotely review 20 patients per hour compared to six in a traditional outpatient setting. Those 20 patients then do not need an in-person visit with a clinician.</li> </ul>
<b>Issues and lessons learned</b>	<ul style="list-style-type: none"> <li>&gt; Start with pathways for patients with long-term conditions.</li> <li>&gt; Clinical leadership and the willingness to drive through implementation are key.</li> <li>&gt; Re-design the whole clinical process to incorporate the PHR, led by the clinical team and patients.</li> <li>&gt; Have clear clinical management protocols where patients are self-monitoring, eg circumstances for contacting or recalling patients, to ensure patient safety.</li> <li>&gt; Ensure that the patient registration process and logging on are easy and quick.</li> </ul>



**Box 3 Florence Text messaging<sup>60</sup>**

<b>Organisation</b>	Stoke-on-Trent CCG and Mediaburst Limited
<b>Technology</b>	Two-directional text messaging (2014) – ‘Florence’
<b>Key results</b>	<p>Florence is used in over 70 health and social care organisations. Over 22,000 patients have joined the service. Developed by the NHS as a simple telehealth application, Florence allows clinicians to engage patients with their healthcare.</p> <p>It achieves faster health outcomes, better medication and treatment compliance, and increased productivity compared with normal care.</p> <p>The following improved:</p> <ul style="list-style-type: none"> <li>&gt; patient satisfaction</li> <li>&gt; medication compliance</li> <li>&gt; attendance rates</li> <li>&gt; physical health and mental wellbeing</li> <li>&gt; patients’ lives – no longer revolve around provision of services.</li> </ul>
<b>Scope</b>	It can be used for any condition where the patient at home might benefit from: motivation and prompting; questions or education; or reporting symptoms and home measurements such as blood pressure, weight, oxygen saturation etc. Florence’s technology can be linked to a wide range of illnesses and healthy living services including asthma, diabetes, hypertension, smoking cessation and weight management.
<b>Website</b>	<a href="http://www.getflorence.co.uk">www.getflorence.co.uk</a>



Evidence indicates that **patients are accepting of the technology** and are willing to use it to self-monitor...

### **The need for clinical and patient input at the design stage**

There are unfortunately many examples of digital tools that have failed, and sometimes even caused harm.<sup>62</sup> Involving ‘users’ – patients and clinicians – does not guarantee success but does help produce digital tools that are more effective, problem-focused and usable.

### **Patient selection**

Some patients may not be willing to engage with digital technologies, so they should be offered alongside traditional services.

Evidence indicates that patients are accepting of the technology and are willing to use it to self-monitor. Increased convenience and privacy are selling points. However, patients do not want to lose in-person contact so a combination of telehomecare and in-person visits seems best. Little evidence exists to guide providers regarding what is the best combination of telehomecare and in-person contacts.<sup>41</sup>

A recent OFCOM survey showed that those aged 16–34 years spent more than 5 hours online per day, dropping to 3 hours per day for those aged 35–54, and 2 hours per day for those aged 55 years or more, with women more likely to be higher users.<sup>63</sup> Similarly, smartphone ownership in those aged over 60 years was at 72%, and over 90% for the remainder of the population.<sup>64</sup>

### **Support and other resources required**

Some technologies, such as fixed site ISDN videoconferencing, require technical support. If they fail, the patient may lose their consultation slot and have to wait weeks or months for another. Others, such as NHS Skype for Business, are relatively trouble-free, but require the host NHS organisation to pay a licence fee.



...However, patients do **not want to lose in-person contact** so a combination of telehomecare and in-person visits seems best.

The following communication services are provided free to NHS organisations by the NHS:

- > NHS Spine Services, including NHS directory of services, NHS personal demographic service
- > NHS Summary Care Record
- > NHS Mail and user directory
- > NHS Choices
- > NHS.uk website
- > Windows 10 for PCs and laptops connected to NHS networks
- > Skype for Business instant messaging only (videoconferencing using Skype for Business requires a licence fee).

Other services such as remote physiological monitoring, personal health records or SMS messaging for outpatient reminders require payment.

### Maintaining data protection

Ensuring the confidentiality of patient data is a core clinical responsibility. It can be easier with digital tools than paper records because of encryption and automatic audit trails of data usage. However, this requires strict adherence to data protection strategies, such as unique login (no password sharing) and automatic logging out following inactivity, which can be frustrating. Access must also be limited to 'legitimate relationships', and not simply based on role.

NHS Mail, Skype for Business and other NHS channels are secure. Messaging apps usually use secure encrypted data transfer protocols which are difficult to intercept. However, if the data is not held in the European Union, clinical messaging about identified patients can violate the General Data Protection Regulation (GDPR). Each NHS trust has a nominated data custodian or Caldecott Guardian who can provide further details about which tools are approved for use within their organisation.

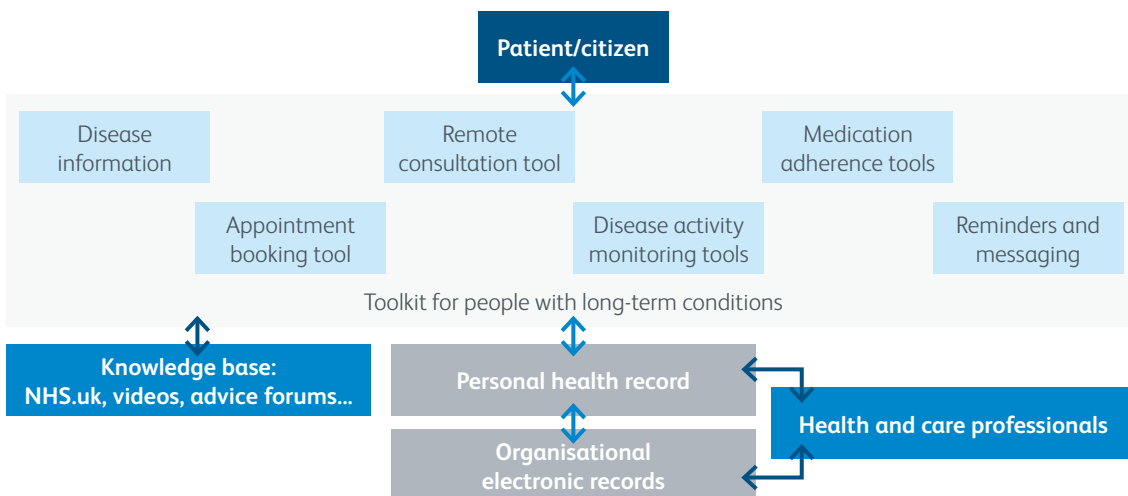
## Conclusion

There are many digital technologies that can potentially support or substitute for outpatient consultations. These need to be selected and implemented carefully by NHS trusts according to local challenges, policies, informatics, funding, and professional and managerial preferences. It is helpful to deliver the selected technologies through a single portal. Some tools can make use of the organisation’s personal or electronic health records, which act as an information infrastructure or ‘infostructure’. This is easier if these records conform to agreed professional records standards such as as those published by the RCP.

More evidence is needed to support the effectiveness of many of these tools. Fortunately, major funders such as the National Institute for Health Research (NIHR) have recognised the need for research in this area – see the recent call for ‘NIHR digital technologies to improve health and care’.<sup>61</sup>

There is good evidence that new technologies will support innovation in outpatient services. But making good use of technology requires careful thought and planning. It is as much about changing clinical practice and professional culture as procuring high-quality, tested products.

Fig 2 How a selection of relevant digital tools can be combined into a single patient-facing self-management toolkit



# Metrics for measuring success

Each of the devolved nations routinely captures data on outpatient activity. Although each nation has nuanced metrics reporting on attendances, eg ‘new to follow up’ ratios, DNAs or cancellations, and waiting times at a national and provider level, these measures are often taken as surrogate markers for efficiency (DNA rates) and productivity (referral volume, waiting times relative to capacity and workforce). Guidance exists describing how to measure and analyse demand, patient flow and capacity.<sup>9,10</sup> But do these measures accurately reflect the quality of the service and its ability to meet individual patient and population need, reflecting value?

## Population health

‘Population health’ is an approach that aims to optimise the health of a specific group of people. The group may be defined by factors such as geography, condition, socioeconomic status or ethnicity.

The focus of a population health initiative depends on the group, but it may include:

- > equal access to services
- > making sure everyone with a health need is known to the appropriate service and receiving effective care
- > strategies that prevent ill health.

‘RightCare’ is an NHS England example of an initiative which collates condition-specific data (prevalence, prescribing habits, spending, admissions etc) and provides individualised data packs for each clinical commissioning group on their responsible population. This helps to identify areas of healthcare for further

investment that offer maximum benefit for population health.

The population health approach uses aggregated data to direct resources at initiatives that will be of most benefit to the group. It promotes value and integrated working to address the needs of a population.

## Individual health outcomes

The best possible care for the individual concentrates on quality and clinical outcomes. These can include objective clinical measures (eg haemoglobin A<sub>1c</sub> result), or patient-reported measures (eg SF-36 or EQ-5D). Respectively, these measure the efficiency and efficacy of management, and how clinical trends relate to the values and goals of the patient or their health-related quality of life.<sup>65</sup> The Institute for Healthcare Improvement’s domain of quality can help define potential categories of measures for clinical quality:

- > safe
- > effective
- > person-centred
- > timely
- > efficient
- > equitable.

Further national programmes, eg Getting It Right First Time (GIRFT), report on speciality-specific clinical outcomes at a provider level, in an attempt to reduce unwarranted variation in clinical practice and service delivery. The metrics used to measure clinical quality are chosen by relevant clinicians on a specialty-specific basis.

GIRFT data is planned to feed into NHS Improvement's 'Model Hospital' service, which offers a provider-specific overview of productivity, quality and responsiveness, calculated using multiple measures of expenditure, procurement, estates and facilities, workforce etc, and allows comparison of local service delivery nationally and with peer providers.

## Sustainable environment

The NHS is one of the largest contributors to greenhouse gas emissions in the UK. Those emissions contribute to climate change and air pollution, which are a real and imminent threat to health. The NHS is therefore contributing to ill health, compounding existing pressure on services.

Every clinical contact uses resources and produces waste. Staff and patient travel, infrastructure, prescriptions and medical equipment all contribute. The environmental impact of service delivery should be measured to ensure unnecessary waste is avoided.

A quick and simple measure is patient and staff travel, which accounts for 18–28% of the NHS footprint in each of the devolved nations.<sup>66–68</sup> Miles travelled can be used to calculate the associated carbon emissions using one of a number of free online mile-to-carbon calculators, which starts to normalise the discussion of environmental impact.

At the same time, you can consider the wider impacts of healthcare delivery on the patient and society. The Local Government Association has estimated that £6 of healthcare expenditure could be prevented for every £1 spent on schemes aimed at maintaining social lives.<sup>69</sup>

NHS organisations should therefore look to capture what impact they have on individuals' lives and society, minimising disruption and helping patients to maintain as normal a life as possible. Metrics could include missed time from work or social activities, loss of income, and the financial cost of attending an appointment.

## System thinking

The RCP report *Engineering for better health* describes a system approach to designing and implementing better service delivery.<sup>70</sup> It combines the perspectives of people, systems, risk and improvement design to ensure maximum benefit is achieved for everyone and all interlinked processes. Any intervention should be evaluated to ensure that it does not improve one element of care or health while adversely affecting another.

The RCP approach to quality takes a population, system and individual perspective. This balance requires a system-level approach to quality, striving to obtain maximum value by identifying the best achievable balance of these three domains. This maximises opportunities to improve clinical outcomes in a manner that meets the needs of the patient, improves population health and ultimately makes best use of resources. By including a population perspective, it pushes to ensure long-term outcomes and impacts are considered, eg environmental impact.

**Recommendation: Quality improvement projects should measure value as well as quality, recognising the population and system effects of change as well as individual clinical outcomes.**

# Training in outpatient services

Finding time to teach or learn in outpatient services can often be difficult due to service demand. We need a cultural change in how we approach outpatient services teaching to ensure the competence and confidence of future generations of medical staff.<sup>71</sup>

Outpatient care represents 85 % of doctor–patient encounters in hospital (outside of A&E) and typifies the majority of a consultant physician’s workload. With the drive to keep patients out of hospital, there is a growing need for medical professionals to be proficient in the nuances of assessing and managing outpatients.

Learning opportunities in outpatient care often go unrecognised or underutilised.<sup>72</sup> Our focus groups with specialist medical trainees found that they failed to recognise outpatient care as a training opportunity, seeing it as entirely service provision.

Research has shown this as being the result of two things: a limited understanding of what constitutes effective learning in this environment, and different supervisor and learner aims. Supervisors often focus on the importance of communication skills, attitudes to patients, and intellectual challenges in caring for undifferentiated patients. Learners are more focused on clinical learning outcomes such as history taking and eliciting physical signs.<sup>71</sup>

A multitude of clinical skills and wider professional expertise (listed in table below) can be taught and practised in an outpatient setting, ultimately preparing the learner for independent practice. But there is no clear difference between what is expected from less experienced and more experienced learners. This makes it difficult to tailor the opportunities to the learner and identify a structured route of progression.

 <b>Clinical skills</b>	 <b>Wider professional expertise</b>
History taking	Letter dictation
Systems examination	Long-term logistical care planning
Aetiology and pathology	Communication with patient and colleagues
Laboratory and radiology result interpretation	Understanding the patients’ needs and values
Diagnostic reasoning and clinical decision making	Professional behaviours and attitudes
Health promotion and prevention strategies	Economic (commissioning), social and ethical considerations
	Community support and social circumstances availability

Setting learning objectives is a way for the supervisor to signpost the opportunities available to the learner. They help the learner to focus and provide a metric for measuring progress, acting as a natural precursor to work-based assessments.

An early discussion between the supervisor and learner is crucial. It enables the supervisor to understand the experience and learning needs of the learner so they can set appropriate learning objectives and ascertain expectations. This can form the basis of a learning contract between the supervisor and learner.<sup>73</sup>

Learning objectives may be aligned to the curriculum or syllabus, or to practising and developing specific skills.<sup>74</sup> Looking at a learner's evidence of previous experience or their syllabus requirements helps to focus learning.

### Examples of learning objectives

The learner should be able to:

- > describe the common causes of...
- > perform an examination of...
- > take a medical history from a patient with...
- > describe the investigations and potential management options for a patient with...
- > dictate a clear and coherent letter to a GP.

Learning objectives should be observable and measurable, stating the intended outcome from the learning activity.<sup>75</sup> As the learner progresses, the focus of the learning objectives often shifts from acquiring knowledge to development of physical skills and finally to developing attitudes and observable behaviours.<sup>76</sup>

It has been described how learners can take the initiative both before and after the outpatient event to facilitate their own learning.<sup>77</sup> They need to be encouraged to 'own' their learning beyond the clinic room by signposting to other educational resources.

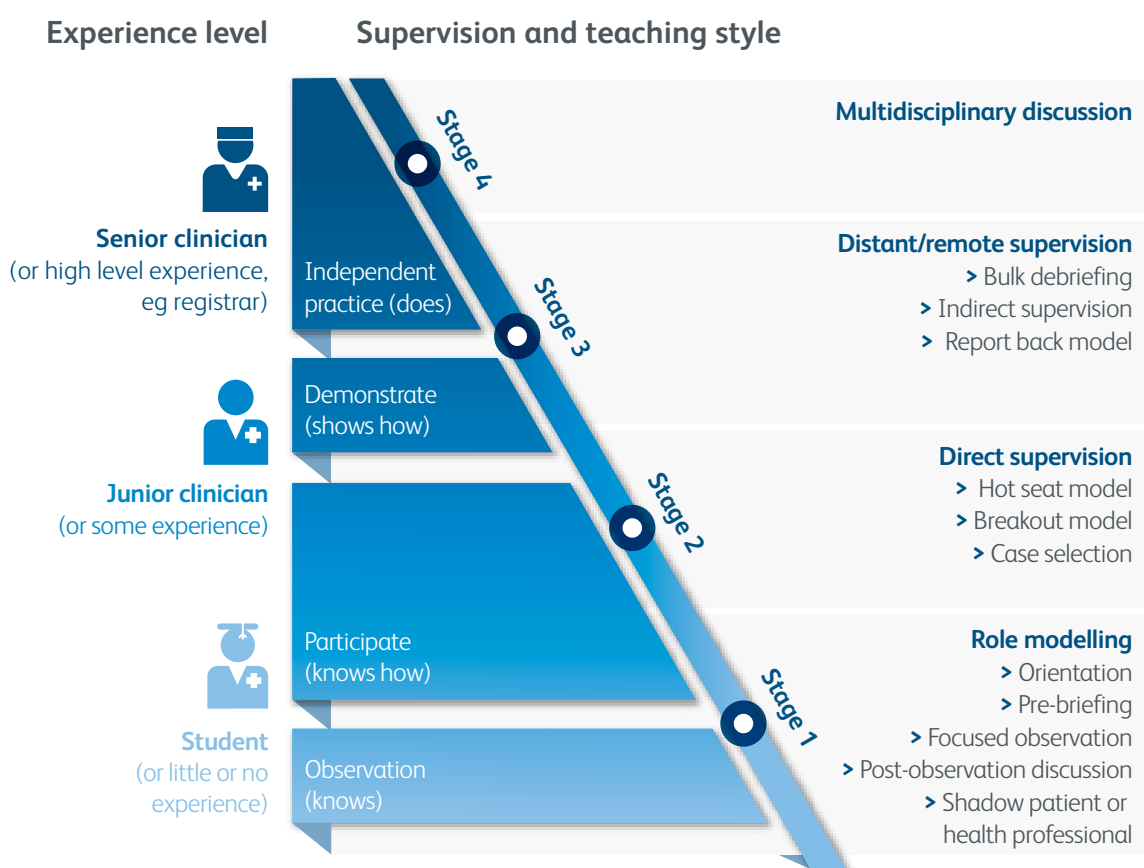
### Supervision and teaching techniques

The wide range of outpatient facilities and specialties means that there is no 'right way' to conduct teaching in an outpatient setting.<sup>78</sup> But teaching in outpatient clinics is often opportunistic and therefore variable.

All learners should progress through the same developmental stages, moving from minimal or no experience through to independent practitioner. These stages are illustrated in Miller's pyramid for assessing clinical competence. We have used this and superimposed appropriate supervision or teaching techniques that could be adopted at each stage to aid in the planning of learning opportunities and facilitate the learner's development (Fig 3).



Fig 3 Miller's pyramid superimposed with appropriate supervision or teaching styles



## Stage 1 – Observation

Learners in the observation stage require familiarisation with the purpose and format of an outpatient consultation and learning objectives that focus on knowledge acquisition. This can be achieved through good role modelling behaviour, where learners ‘sit in’ on clinics and observe an experienced practitioner during a consultation.<sup>79</sup>

Learners have identified passivity and acting in a purely observational role as a major drawback to learning. Complete passive observation of an entire consultation or clinic has limited educational value beyond orientating themselves to the specialty and clinic of concern.<sup>80,81</sup>

To aid learning and progression, the student should focus their observation on specific parts of the consultation. Briefings prior to the observed consultation allow these to be identified. Post-observation discussions allow the learner to report back on their observations, seek clarification and reflect on their learning.<sup>82</sup>

The learner should be encouraged to observe other facets in the outpatient system, not simply the leading professional’s consultations. This may involve following the patient ‘journey’, or observing alternative healthcare interactions. Many different professions have advanced practice roles in outpatient services, and less-experienced clinicians from other professions can learn a great deal from observing and discussing their practice. They may also benefit from interprofessional supervision or mentorship.

## Stages 2 and 3 – Participation

It is unrealistic to allow a student of relative inexperience to participate in every patient consultation of a fully booked clinic and gain educational value without running over time. It is important to be selective: firstly by choosing one or two cases for the student to begin their consultation practice with, and secondly by organising how you will supervise them.

For those with less experience, a ‘breakout model’ is useful. Initially the learner sits in and observes the supervisor’s practice, but is then able to go over the consultation or examination themselves. Ideally this happens in a separate room, after the ‘formal’ consultation is complete, and providing the patient consents.

A ‘hot seat’ consultation model allows active learner–patient interaction in the presence of the supervisor. The learner leads the consultation and the supervisor observes. With increasing confidence and experience, the supervisor can reduce their face-to-face observation, until the learner is reviewing patients independently and ‘reporting back’ on a case-by-case basis, for patient safety. This ‘indirect supervision’ allows the learner their own time and space to practise at their own pace.

When learners present their findings they should be encouraged to follow a structured approach and try to identify their own learning needs. ‘SNAPPS’ is a model that encourages a learner-centred question-and-answer-based approach to teaching, with the learner asking the questions:<sup>83</sup>

- > Summarise the history and physical findings
- > Narrow down the differential diagnosis
- > Analyse the diagnosis by comparing possibilities
- > Probe the supervisor with questions
- > Plan patient management
- > Select a case issue for self-directed learning.

As the student becomes more competent and builds their clinical knowledge, they may find themselves more directly involved in the logistics of outpatient service provision. As a result, they become increasingly aware of the need to develop wider professional skills in order to become a safe autonomous outpatient practitioner.

Poor communication is a frequent cause of complaints. For example, the outpatient letter should be a succinct summary of the encounter. It needs to summarise discussions for both the patient and other medical professionals. But learning of this crucial aspect is often neglected in exchange for clinical skills teaching.



### Organising principle

All outpatient services should offer a supportive environment for training.

## Stage 4 – Autonomous practice

As the learner becomes more competent they can become more independent. The involvement of the supervisor may be reduced to being accessible for advice remotely, or debriefing at the end of a clinic.

This should be constantly reviewed. Although a learner may act independently for simple cases, they may need to repeat their progression through the stages as their exposure to more complex cases increases.

## Future of outpatient teaching

As outpatient care evolves to increase the provision of telehealth consultations, teaching styles will need to adapt to address the changing need of learners. Healthcare professionals who are unfamiliar with the delivery of telehealth express concerns about its safety and reliability.<sup>84</sup>

Teaching in telehealth consultation skills can improve understanding and increase confidence, encouraging clinicians to include these consultation styles in their service.<sup>85, 86</sup> In Australia, telehealth is widely used in response to rural health needs. Undergraduates receive simulation training to improve their familiarity with technical equipment, clinical etiquette, and legal and ethical considerations of telehealth. Insufficient training in telehealth consulting has been identified as one of the barriers to uptake.<sup>87</sup> As further widespread adoption of telehealth is encouraged, training for health professionals and patients is needed to optimise the telehealth care provided.<sup>88</sup>

# Value-based remuneration

Commissioning is the process of purchasing and monitoring health services to get the best health outcomes. This involves assessing local needs to help plan and prioritise health services.<sup>89</sup> Since the devolution of healthcare, NHS England has created a commissioner–provider split, unlike Northern Ireland, Scotland and Wales, which predominantly use block contract commissioning.<sup>90</sup>

The commissioner–provider split contracts providers to deliver specific services, eg asthma care. It was designed to improve allocative efficiency and accountability by creating an internal market. The commissioning side structure has gone through various incarnations, the most recent being the replacement of primary care trusts and specialised commissioning groups with 211 clinical commissioning groups (CCGs). This places clinicians in charge of local commissioning, in response to the Health and Social Care Act. However, unless clinicians are directly involved, the complexity of the commissioning system makes clinical engagement difficult.

Provider payment structures vary, dependent on the service and region. Each structure has its advantages and disadvantages. In NHS England, the National Tariff (previously ‘Payment by results’) accounts for the majority of acute sector spend. This was introduced at a time of long waiting lists to improve efficiency and support patient choice in where they received care. It uses activity as a currency to determine remuneration.

Various incentives have been introduced as an adjunct to the national tariff, including best practice tariffs and Commissioning for Quality and Innovation (CQUIN) payments. These aimed to increase adherence to clinical guidance, reduce variation in practice and drive quality improvement. However, success has been dependent on local clinical engagement.

The National Tariff has been successful in reducing waiting lists, but has become outdated. Increased activity could be seen to be incentivised, failing to encourage new national objectives for improved efficiency, preventative healthcare and provision of more care out of hospital.<sup>91</sup> Similarly, it hinders provider integration and collaboration as payment structures are tied by organisational boundaries, and set tariffs limit flexibility to introduce innovative care delivery.

Some providers have overcome this by reverting to block contracts, or negotiating locally agreed tariffs. However, these payment structures have implications for national reporting of activity and can cause a lack of transparency in how a service is delivered.

Increasing population health is almost never achieved through increasing healthcare delivery. Simply rewarding an organisation for delivering a process efficiently many times over is no longer a solution that will ensure good outcomes for patients. It is vital that we focus on the outcomes of the consultation, rather than the process. This means recognising that clinical value can be delivered in a multitude of ways, and, vitally, considering the patient perspective.



An evidence-based, population-focused, person-centred and outcomes-oriented system of commissioning will provide value.

Increasing value via healthcare commissioning is not always about wringing more activity out of an already pressurised system. Commissioning services based on population needs and population health, with a view to long-term outcomes rather than short-term solutions, has the potential to improve population health without expanding healthcare spending – value-based healthcare.

Numerous ways of measuring value in healthcare have been described. Value-based commissioning should remunerate equally based on:<sup>92</sup>

- > patient and carer perspective
- > clinical expertise
- > implementation of evidence-based knowledge.

This model enables providers to be paid based on patient needs, best clinical practice and, ultimately, the health outcomes achieved.

The 44 sustainability and transformation partnerships (STPs), initially published as plans in 2016, have the potential to evolve into integrated care systems and integrated care providers (previously accountable care systems and organisations) to drive collaborative and integrated service design among providers.<sup>93</sup> This provides the contractual agreement for forward thinking service delivery but is not yet partnered with an appropriate, or incentivising, payment structure.

Value-based care agreements reward providers for helping patients to improve their health, reducing the effects and incidence of chronic disease ...in an evidence-based way.'

**NEJM Catalyst, 2017<sup>94</sup>**

An evidence-based, population-focused, person-centred and outcomes-oriented system of commissioning will provide value. Clinicians and their representatives must be involved in these decisions, making sure that resources flow to where they are needed, not only to where they have always gone. However, it is important to also remember that the payment system is just one of many tools that can enable change, and is not an end in itself.

**Recommendation: Trusts should be remunerated on the basis of clinical value, not units of physical interaction or activity.**

# Governance and regulation

## Clinical governance

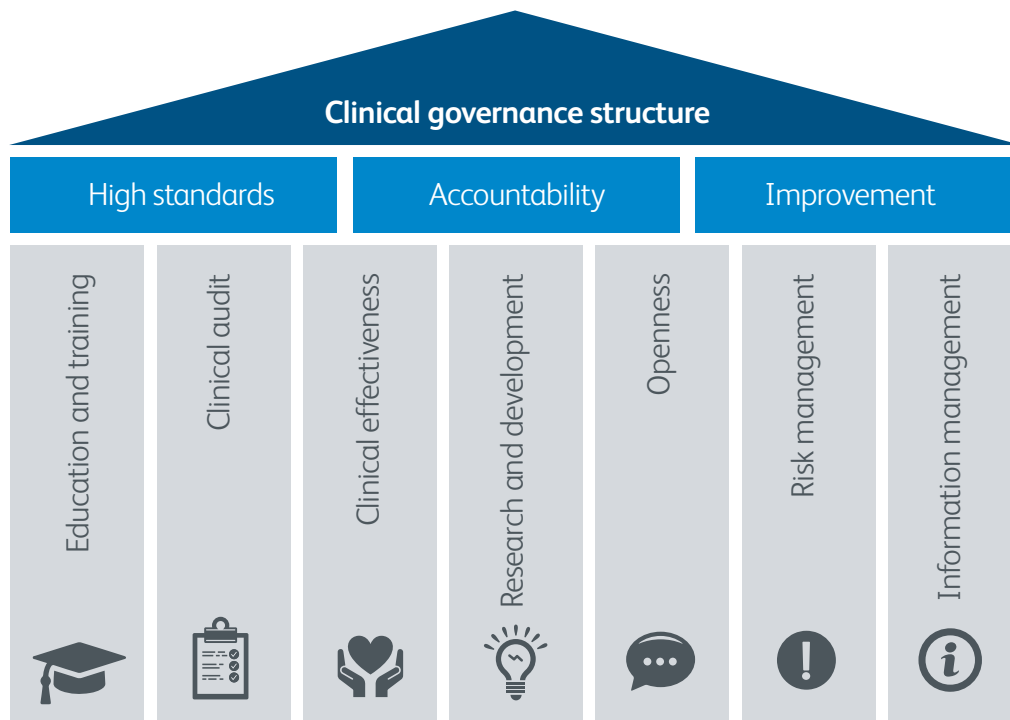
Clinical governance describes the quality assurance process through which an NHS organisation is accountable for maintaining and improving the quality of their services.<sup>95</sup> It traditionally comprises seven areas of activity (the seven pillars) which embody three key themes:

- > recognising high standards
- > transparency of responsibility and accountability for maintaining standards
- > a constant drive for improvement.

Formalised clinical governance was developed in response to concerns about the quality of healthcare. It embedded quality improvement alongside statutory financial and operational responsibilities.

Currently the majority of quality improvement activity focuses on inpatient care and has resulted in significant improvements for patients. An example is the National Mortality Case Review Programme, which has developed a methodology for reviewing case records of those who have died in acute hospitals across England and Scotland. It provides a validated and structured way of critically reviewing notes to formulate a reproducible conclusion regarding the quality of care received, and to drive improvement.

Clinical governance structure



A similar governance structure for ensuring quality and preventing harm in outpatient services does not exist. Without any formal or validated method of assessment of the equality of care being delivered, system failures or outdated/sub-standard practice could potentially not be identified and go unchallenged.

An essential part of continual quality improvement and assurance involves an openness to undertake a regular review of clinical practice. It must allow mutual learning and improved understanding of potential problems, or processes issues that could be resolved before patient safety is compromised.

Peer-to-peer assessment can be challenging as a result of personal and professional relationships. It can be assisted by formalised processes and tools to conduct assessments, similar to morbidity and mortality reviews. Equally, regular reviews of practice can enhance teamwork, facilitate peer learning and identify patterns of outlier behaviours early. Any audit should include sensitive indicators of good practice which, measured repetitively, can rapidly detect variation from accepted best practice. Such indicators need to be carefully defined and are likely to vary according to specialism. These could include drug prescriptions, procedure rates and types of investigation requests. Further enquiry would be required for any outliers to see if the practice could be explained by specific circumstances.

The Royal College of Physicians Invited Service Review team is currently developing and piloting a modified version of the National Mortality structured judgement tool that could be rolled out locally to allow trusts to integrate a new strand of clinical governance focusing on outpatient care.

**Recommendation: National guidance for the oversight of outpatient services as part of local governance structures should be developed and integrated in all trusts alongside mortality and morbidity reviews.**

## Regulation

The Care Quality Commission was established in 2009 to regulate health and social care services in England. It does this through inspections, the frequency and size of which depend on the type of service being reviewed and existing concerns.

The inspections aim to be a holistic review of whether services meet standards, rather than a tick-box exercise. They follow a line of questioning focused on five key themes.



Outpatient services are considered to be one of eight core services which are always inspected at NHS acute hospitals. The key lines of enquiry (KLOEs) used to evaluate each of these themes are publically available. There are clear opportunities in these KLOEs to demonstrate exceptional service provision if the principles for delivering outpatient care, from this report, are met.

### Safe

- > Pre-clinic planning will ensure clinical records (and appropriate investigations) are reliably available at the time of consultation.
- > Provision of non-face-to-face consultations will increase service resilience in anticipation of potential risks, ie adverse weather events, or seasonal variation in demand.
- > Optimising staff skillmix (eg including medical associate professionals) will maximise capacity and continuity of care.
- > Introducing local governance processes can demonstrate actions taken to ensure (and improve) safety.

### Effective

- > Non-face-to-face consultations will utilise technology to enhance delivery of effective care.
- > Local governance processes will proactively monitor for variable performance, through audit of notes and procedure or investigation activity, allowing for appropriate action to be taken.

### Caring

- > A value-based approach to delivery care takes into account the impacts of service delivery on patients and their lives, ensuring their needs are more efficiently met.

### Responsive

- > Flexibility and choice in who (staff member) and how (consultation type) care is delivered can potentially improve access and be more responsive to the local populations' needs.

### Well-led

- > A value-based approach to service delivery recognising the needs of both patients and professionals can potentially provide a more satisfying and personalised approach to care.
- > Local governance processes will enhance a culture of openness, improvement and continual learning.

By incorporating an element of value assessment, innovative providers will be able to showcase effective, efficient medicine, and have this recognised in CQC reports. This provides further incentives to think beyond current commissioning structures, and redesign outpatient care – keeping patient outcomes and experience as the heart of clinical services.



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