The current system has failed to keep pace with the needs of an ageing population, the changing burden of disease, and rising patient and public expectation. Fundamental change is needed. This requires implementation of new models of care and decommissioning of outdated models of care. Case studies of good practice from the Compendium of outpatient improvement plus other examples, have been used to illustrate the content of this chapter and encourage adoption and spread across the service.

The transformation process starts with challenging the concept of both what an ‘outpatient’ is and what ‘outpatient services’ are and to transform the way in which we understand, diagnose and manage care. This should help to ensure that more people receive the right care, from the right person, at the right time, in the right place.

This final chapter will be of particular interest to clinicians and managers. It is aimed at supporting NHS Wales to transform outpatient services and is underpinned by the concept of Prudent healthcare which aims to rebalance the healthcare system by strengthening primary and community-based care; secure improved health outcomes and greater value from healthcare systems for patients; to support the establishment of a more equal relationship between patient and professional and remove waste from NHS systems and processes. The Prudent healthcare principles need to be incorporated into the changes to outpatient services and include:

- Do no harm – eliminate treatments which provide no clinical benefit or do harm.
- Carry out the minimum appropriate intervention – the principle that treatment should begin with basic proven tests. The minimum possible treatment should be performed to achieve the desired results.
- Organise staff by the ‘only do what only you can do’ principle, where all people working for the NHS in Wales should operate at the top of their clinical competence.
- Work to the principle that it is the individual’s clinical need that matters when it comes to deciding treatment by the NHS.
- Create a new relationship between the public and NHS Wales, based on openness and sharing information.
In addition to these principles, the work of the All Wales Outpatient Transformation Steering Group has helped to inform this chapter.

Two examples are provided as an illustration of how care could be provided in the future, see Figure 5:1.

**Figure 5:1 Examples of models of care**

**21 year old male with Type 1 diabetes.**
A secure technology solution approved by the NHS, provides the patient with their health record & care plan, connects with wearable activity devices and communicates with the patients’ health network.

Glucose monitoring and adjustment of insulin dosage is undertaken by technology and is linked to the patient health record. The technology provides real time information to the patient with information to facilitate appropriate action, including self management. This information is based on a care plan that has been agreed with the appropriate health professional.

The health professional receives all health monitoring data from the technology at the same time as the patient; alerts are activated by the technology using information agreed between the patient and health professional. Remote monitoring on a routine basis is undertaken by the health professional and to facilitate appropriate care management which can be reviewed at agreed timeframes with the patient. The health professional makes contact with the patient using the agreed method of communication to facilitate ongoing care management. The patient has control of their health record; this enables the patient to give access to relevant parts of their record to others including, health professionals, family and carers.

**50 year old female with angina.**
The GP discusses treatment options with the patient, including lifestyle changes and self management and signposts the patient to information about angina which can be accessed by the patient via their online health record. The patient uses his/ her online health record to monitor symptoms and capture lifestyle adjustments.

The GP makes an e-referral using email to the secondary care specialist (having checked the online referral criteria first). The secondary care specialist reviews the referral and prioritises the patient; the GP and patient receive electronic notification. The specialist requests diagnostic tests.
The booking centre contacts the patient to agree an appointment using the patients preferred method of communication. Confirmation of the date/time is sent to the patients’ online health record.

The patient attends the appointment; diagnostic tests are undertaken before the patient sees the specialist and results are available for the consultation. Treatment options are discussed with the patient and pre surgical assessment is undertaken during the outpatient appointment.

The patient gives access to health monitoring information to the specialist health professional team who monitor symptoms; alerts are activated by the technology using information agreed between the patient and health professional. This information can be downloaded into the patient administration system. Detailed information about the surgical procedure is provided to the patient via their online health record.

The booking centre contacts the patient to agree a date for surgery and the patient receives electronic confirmation. Initial pre-assessment is undertaken via the online health record. Anaesthetic assessment is undertaken on the day of admission. Surgery progresses without problem and the patient has a timely discharge. Communication between the GP and specialist is enabled via one patient administration system. Remote monitoring by the appropriate health professional continues post operatively for an agreed timeframe. The health professional makes contact with the patient using agreed method of communication to facilitate ongoing care management as an alternative to face to face follow-up appointment.
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PRINCIPLES
In addition to the Prudent principles, the following principles have been identified as useful in transforming outpatient services:

- Patients will be seen by the right person in the right place at the right time
- Optimising e-Health and digital opportunities
- Care is community focused with the primary focus on prevention and health promotion
- Care should be tailored to meet individual needs, owned and led by the individual (patient) with goals that are agreed with the patient, included in care plans
- Information should be accessible, easy to understand and facilitate sharing of information between professionals and with individuals
- Evidence based pathways are in place; treatments with limited evidence should not be used and value is added at every stage. Peer review is used to facilitate comparison of clinical outcomes
- Service delivery is outcome focused and monitored against agreed measures

REDESIGN OF SERVICES
Services should be designed around the needs of the patient, whilst using resources efficiently to ensure that demand is in balance with activity. This may require reconfiguration of services, including:

- **Moving services from a secondary care setting to primary or community services** provides the opportunity to move away from traditional models of care and provide care that is local to the patients' own home. In Cwm Taf University Health Board audiology services have been reconfigured and are provided by a Primary Care Practice Nurse. This has reduced demand on specialist services with 2000 patients removed from the Ear, Nose and Throat waiting list; £42k cost savings to the service; waiting list reduced from 7 months to 4 weeks. [Read the case study.]

- **The ‘One stop’ model** in which patients have one appointment that consists of diagnostic tests being undertaken immediately before their consultation, has improved patient satisfaction and reduced waiting times. In Betsi Cadwaladr University Health Board, this model is used for patients referred with suspected endometrial cancer and has facilitated compliance with national cancer diagnosis targets. [Read the case study.]
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The vision for 21st century outpatients 5.1

- **‘Straight to test’** approach involves the coordination and delivery of appropriate diagnostic tests to patients, without an initial out-patient clinic appointment. The Accelerate, Coordinate, Evaluate (ACE) Programme is an early diagnosis of cancer initiative focused on testing innovations that either identify individuals at high risk of cancer earlier or streamline diagnostic pathways. This is an example of one of the Prudent Healthcare principles ‘Carry out the minimum appropriate intervention – treatment should begin with basic proven tests.’ [Read the report.]

- **To enable GPs to avoid referring to secondary care where appropriate** they need:
  - Access to digital imaging software/virtual mediums/diagnostics to help them to manage the clinical needs of patients where appropriate. Results from these diagnostic tests will inform the decision to refer to secondary care. The ACE Programme projects at Croydon and Homerton University Hospitals Trusts explored a diagnostic route directly from primary care for routine colorectal referrals. The findings show diagnostic interval is shortened in time from GP referral to first diagnostic test and onwards to a confirmed diagnosis by around 1–2 weeks. [Read the report.]
  - Access to a multidisciplinary team that provides services locally, and are responsive to the needs of the local population. The Neath Cluster Network has implemented a triage system that helps to direct patients to the most appropriate person to manage their needs. [Read the case study.]
  - Up to date information about local service provision to signpost patients to services that help to improve or maintain health and wellbeing. This will include peer support or community support groups as alternatives to traditional services. Many Health Boards in Wales have a directory of hospital and community services with a similar directory provided by local authorities in the area. [See the directory here.]
  - Access to specialist advice and support in managing appropriate patients. E-advice in cardiology at Cardiff and Vale Health Board started in response to recognition that an alternative to referral to a specialist for routine outpatient appointment was needed for non-emergency GP concerns. The e-advice service has grown from 4 requests a week to an average of 14 each week. In a lot of cases this is simple advice such as reassurance that the patient’s ECG is normal, along with advice for continued management in the community. This avoids a prolonged wait for diagnosing the patient and has resulted in 10% of referrals being managed by advice to the GP. [Read the case study.]
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TRANSFORMING ACCESS TO CLINICAL SERVICES
As the NHS moves away from traditional approaches to providing appointments, patients need to be informed and reassured about changes in service provision. The involvement of clinicians in changing the way patients are managed is crucial to success. These changes could include:

- **Follow up appointments** to be the exception rather than the norm. Protocols that are agreed between clinicians facilitate consistent practice with the emphasis on providing follow up appointments that add value to the patient pathway and improve management of clinical risk by seeing patients within the timeframe that is clinically appropriate.

- **Technology solutions** that facilitate communication between the health professional and patient provide an alternative to face to face appointments. One such example can be found [here](#).

- **Referral criteria** that have been agreed by both primary and secondary care, which takes account of the needs of the local population and local services, help to ensure that appropriate patients are referred to secondary care services. Aneurin Bevan University Health Board recognised that some patients did not require specialist haematological investigation or follow-up. This way of working has reduced the waiting list to 12-14 weeks, compared to 6-7 months before the improvement was introduced. [Read the case study](#).

- **Specialist advice to GPs** enables GPs to manage patients that may otherwise be referred to secondary care. In the Cardiff and Vale area the only route available for GPs to refer non urgent patients to a specialist was by referral to a consultant outpatient clinic. The provision of secure email advice from a specialist, enables GPs to continue to safely and confidently manage patients without the need for an outpatient appointment. This model is being rolled out across Cardiff and Vale. A GP survey of this service had an overwhelmingly positive response. The Health Board anticipates that over a third of referrals will be managed through the provision of advice to GPs. [Read the case study](#).
Condition specific guidance agreed by a professional peer group, which triages patients to the right clinician first time and reduces unnecessary delay. The rheumatology department at Aneurin Bevan University Health Board has developed a number of pathways. Read about an example.

Better access to clinical decision making support and specialist advice will enable appropriate patients to be managed by primary and community services. This will have a significant impact on patients getting the right treatment. The specialist resource can be focused on more complex patients; this change in the anticipated complexity of patients in secondary care should be recognised and factored into job plans and the management of activity. In the Cardiff and Vale area this model has been implemented and helped to secure 35% reduction in referrals to secondary care. Read the case study.

Shared care arrangements between primary and secondary care can help to provide care closer to home and improve access to specialist services. This model helped the rheumatology service in Aneurin Bevan University Health Board to see and treat 85% patients with suspected inflammatory arthritis within 6 weeks of referral. Read the case study.
ENHANCING THE ROLES OF PATIENTS AND COMMUNITIES
Engaging patients in making decisions about their treatment and care is beneficial to both health services and individuals. This should start at the earliest opportunity and continue throughout the patient pathway.

- **Shared decision making** is a process in which patients are encouraged to actively participate in selecting treatments or management options. It is appropriate in any situation when there is more than one way to treat a health problem, with different risks and benefits to each option. A Cochrane review found moderate quality evidence that shared decision-making reduced antibiotic prescribing for acute respiratory infections in primary care in the short term. Read the review.

- **Making Choices Together** is a movement to encourage open conversations between patients and their clinicians to make decisions together about the right care for the patient, informed by good evidence and responsive to the needs and wishes of the patient. Clinical staff have access to training and guidance on how to have ‘better conversations’. Visit the website.

- **Patients should be fully informed of what to expect from a service** to avoid unrealistic expectations. Additionally, GPs and other referrers should have up to date information about service provision and waiting times that can be shared with patients. Abertawe Bro Morgannwg University Health Board has developed a webpage to provide this type of information. Visit the website.

- **Patients should be actively encouraged to improve their ability to manage their health and wellbeing** and improve their quality of daily life. This can be facilitated by signposting to information, voluntary organisations and community groups that provide support services. Take a look at one organization that supports people with arthritis: www.arthritiscare.org.uk/our-services-and-support

- **Social prescribing** is a means of enabling GPs, nurses and other primary care professionals to refer people to a range of local services. Recognising that people’s health is determined primarily by a range of social, economic and environmental factors, social prescribing seeks to address people’s needs in a holistic way. It also aims to support individuals to take greater control of their own health. A number of projects are using ‘link worker’ social prescribing schemes to signpost people to accessing a range of services such as weight reduction programmes as an alternative to health and social care, with the aim of improving health and wellbeing. Read more here.
Self management plays a crucial role in improving health and wellbeing, by improving an individuals’ ability to manage their health condition and confidence. Education Programme for Patients (EPP) Cymru offers a range of health and wellbeing courses and workshops for people living with, or caring for someone with a health condition. Read more here.

Informed patients are more likely to make healthy choices and comply with their care plan. Information should be easily understood and given to patients at every contact. The rheumatology department in Aneurin Bevan University Health Board provides a range of patient information. Read more here.

Brief intervention training is available for many topics and enables staff to discuss positive health behaviour with patients in a positive, non-confrontational way. For example primary care brief interventions for promoting physical activity are estimated to cost £20–£440 per year of healthy life gained as a result of the intervention. In comparison, statin treatment to treat high cholesterol costs between £10,000 and £17,000 per year of healthy life gained (Department of Health, 2012). Read the report.

‘See on symptom’ (SOS) appointments have the potential to avoid follow up appointments that the patient does not value; and may reduce ‘did not attend’ rates. SOS allows the patient to arrange a follow-up appointment as needed, can be used for individuals with chronic condition/s or recurring conditions and facilitates the individual having control of their own health and wellbeing. Patients who have access to this provision should be given information about the ‘criteria’ for making a follow-up appointment. The process of making an appointment should be as easy as possible for the patient or carer. Abertawe Bro Morgannwg University Health Board have used this approach for podiatry service to improve flexibility of available appointments to meet unplanned patient need and reduce DNA rates to less than 1%. Read the case study.

Alternative ways of providing results to patients that avoid face to face appointments provides an attractive option where clinically appropriate. This will include the use of technology as well as more traditional forms of communication. Aneurin Bevan University Health Board remotely monitors patients with Chronic Lymphocytic Leukaemia. It is estimated that this allows 240 clinic appointments/year to be used for other patients and saves approx £42k. Read the case study.
Systematic measurement and reporting of patient preferences should be embedded into the provision of outpatient services of the future. Patient feedback helps to improve the quality of services and ensures that the patient is the focus of everything that we do. Patient Reported Outcome Measures (PROMs) and Patient Reported Experience Measures (PREMs) can help NHS Wales to gain a better understanding of the ‘value’ of services by providing patients with the opportunity to provide feedback about their health status and experiences of care. The national PROMs, PREMs and Effectiveness Programme is supporting all NHS Wales organisations to collect PROMs and PREMs across a range of specialities, providing insight into the effectiveness of treatments provided by NHS Wales. Read more here.

CHANGING PROFESSIONAL ROLES
Changing and modernising professional roles and boundaries is key to making best use of scarce resources. With increasing demands on the NHS in Wales, it is important to maximise the scope of roles and make the most of scarce staffing resources. Innovative change is needed to provide a sustainable workforce in the short term and long term.

The skills of the workforce should be adapted to meet the needs of the patient and/or service. This should include up-skilling staff to facilitate changes in responsibilities, which will help to improve and transform services. The Sexual Health Service at Wrexham Maelor hospital made changes to the responsibilities of Health Care Support Workers, enabling registered nurses to concentrate on preventing onward transmission of infection. Read the case study.

Communication across services and between professional groups should be robust to avoid duplication and improve the patient experience. Aneurin Bevan University Health Board changed the way referrals for low back pain were managed and made changes to job plans, facilitating service redesign. Read the case study.

Combating the present and future difficulties in recruiting GPs and specialist staff is essential to creating a multi-professional model of care, thereby releasing GP/specialist time enabling them to manage more complex medical cases and co-morbidity presentations. Betsi Cadwaladr University Health Board has appointed Advanced Physiotherapy Practitioners as the first point of contact for musculoskeletal conditions in primary care thereby relieving GPs (and secondary care where appropriate) of this caseload with 2868 fewer referrals into secondary care and cost savings of £372840. Read the case study.
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RETHINKING THE LOCATION
Rethinking the location of services, with close to home as the default, will enable different models of provision to be developed.

■ Changing the way services are provided – moving services away from secondary care into the community helps GPs to consider if a patient’s needs could be managed in primary/community setting. Cwm Taf University Health Board faced an increasing demand of patients referred by General Dental Practitioners for dental extractions. A community service was developed, resulting in significant reduction in demand on secondary care oral surgery; Patient feedback indicated that 98% were happy with the quality of care received. Read the case study.

■ An integrated care model with secondary care and primary care working together facilitates local provision of services with support from specialists. This model provides care ‘closer to home’ for patients and helps to improve the skill set for GPs through the provision of advice and support for the management of individual patients. In Cardiff and Vale University Health Board paediatric services have introduced such a model, that provides rapid, designated, specialist support to health professionals working in primary care. Read the case study.

■ Community setting should be used with co-located services where possible. This helps to move away from the ‘medical model’ of care to a more holistic approach, focused on health and wellbeing. Services could include housing, health, voluntary sector and social care. Abertawe Bro Morgannwg University Health Board is providing audiological assessment and advice in primary care. 44% of patients have been managed solely by the primary care audiologist, reducing demand on GP and ENT clinics. Positive feedback using the Patient Enablement Index has been received. Read the case study.
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USING NEW INFORMATION AND TECHNOLOGIES

We need to harness digital technology in the provision of services, engage with patients and help make the best use of resources.

As the NHS moves away from traditional approaches to providing appointments, patients need to be informed and reassured about technology.

- **Technology can help to improve support to primary care** and ensure that appropriate patients are managed by specialists and others are managed in primary care with specialist advice. In Cardiff and Vale University Health Board referrals with dermatological images are reviewed by consultants; more than 30% are managed solely with advice to the GP, avoiding a delay in diagnosis for the patient and avoidable outpatient appointment; 3500 outpatient appointments have been avoided – with savings of £525,000. Read the case study.

- **Technology can also be used as an alternative to traditional forms of appointments**; test results can be provided by text, e-mail or web tools, rather than follow up appointments, and consultations can be provided using web-based management software which enables consultation in the patient’s own home or near to home. Betsi Cadwaladr University Health Board is using virtual consultations for frail, elderly patients. Patients saved on average 66 minutes of travel time (42 miles) to and from the clinics; over 83% of patients would recommend this approach. There were also savings in both time and money on Consultant travel. Read the case study.

- **Transfer of care** involving multiple staff can create challenges with communication for both staff and patients. Here is an example of using a patient-controlled, online medical records system to combat some of these challenges. See here.
Web-enabled devices, including smart phones and iPads, can be used by individuals for monitoring of symptoms and results. Patient self-scheduling tools/software and patient i-triage assessment allows the patient to access care when required. This could be used to live stream patient data and provide anticipatory care. Secure text messaging is one way of providing additional support to patients and facilitates monitoring of symptoms. The ‘Flo’ text messaging service was used at City Hospitals Sunderland to support the management of gestational diabetes. Benefits included; achieving target blood glucose, achieving a positive weight loss, a reduction in cigarette consumption and a reduction in outpatient appointments. Read more here.

Technology can be used to support individuals to improve their health and wellbeing through the provision of health information, interactive coaching tools and mobile phone apps. This can improve access and provide a more flexible approach for patients who live in rural areas or have difficulties accessing services. Powys Teaching Health Board provided ‘Online Self Management Programmes for Long Term Conditions’ to help create a sustainable service and reduce the wait for a course; on average participants received the intervention 38 days from their first appointment. Read the case study.

Digital health technologies/wearable devices which enable remote monitoring and supports the patient to self-manage, could be used as an alternative or supplementary to follow-up appointments for some patient groups. Go to this website for an example for cardiac patients: www.medtronic.com/us-en/patients/treatments-therapies/remote-monitoring/mycarelink-connect-website.html

Technology can be used to improve efficiency and productivity of appointment slots. Aneurin Bevan University Health Board use text reminders for outpatient appointments. This is helping to reduce did not attend (DNA) rates from 9.2% to 7.2% and to improve productivity – 44,128 appointments potentially released. Read the case study.
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INTELLIGENT USE OF DATA AND MEASUREMENT OF OUTCOMES

Measuring the quality of health care for individuals as well as populations and using those measurements to promote improvements in the delivery of care is key to improving outcomes.

- Health Boards should have a basket of measures that facilitate monitoring the performance of a system as well as Welsh Government targets. This information should be readily available to managers and clinicians and routinely discussed to monitor performance and inform service development.

- Creating the infrastructure to facilitate regular discussions between managers, clinicians and departments is crucial to securing improvements across a whole pathway.

- Patient self-monitoring enables individuals to monitor their health and wellbeing. This could include test results or symptoms. This data could be used to produce tailored health messages and information for local population/individuals. Read more here.

- Comparison of health outcomes across a health community facilitates learning between organizations and sharing of good practices. ICHOM has developed a range of standards, such as osteoarthritis. Read more here.

- Value based healthcare provides the opportunity to alter how healthcare is designed – with an emphasis on outcome collection. Aneurin Bevan University Health Board is using this approach to drive radical service redesign. Read more here.