

Rapid Literature Review

Best practice for managing outpatient bookings

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Background

Transformation of care at Monash Health is an organisation-wide program of work aiming to improve the efficiency of delivery and operations of care, as well, improving patient experience and outcomes. One aspect of this work includes the redesign of speciality consulting services particularly focussing on outpatient services, The General Manager of Specialist Consulting & Health Information requested an evidence review to inform best practice for managing outpatient service delivery at Monash Health.

Objective

The objective of this review was to undertake an evidence review on best practice for speciality consulting and the management of outpatient service delivery. The purpose of this is to inform the potential redesign of specialist outpatient services.

To achieve this objective the review covered the following areas:

- Overview of approaches to outpatient services
- Referral management
- Appointment scheduling and booking
- Alternatives to Outpatient Appointments
- Management of waiting times
- Failure to attend
- Implementing patient-focused booking
- Follow-up
- Barriers to appointment booking
- Patient experience with specialist clinic services

Results

Overview of approaches to outpatient services

The search strategy used to identify material included in the report is outlined in Appendix 1.

A full summary of results can be found in Table 1 in Appendix 2.

General redesign principles¹

The Nuffield Trust held an event in collaboration with NHS Improvement to hear from health leaders across the country who have made significant changes to their outpatient services.

The following overarching principles emerged:

- Outpatient redesign works best when it is focused and led by the clinicians who are delivering it.

Clinicians need the time and space to make changes and experiment with different models, overcoming challenges as they arise. The redesigns were more effective for having been a team activity with a senior clinician driving the process.

- Use data to reinforce new ways of working.

Data is used effectively to enable consultants to take a population health approach, or to change the culture around missed outpatient appointments.

- Design the service based on a thorough understanding of the tasks that need to be done.

Think about whether it is advice, diagnosis, providing an intervention, long-term management, monitoring progress, following up treatment or some other role. Based on the task at hand, consider using alternative consultation models such as virtual clinics or group consultations.

Broad approaches used by others to improve outpatient services

Open access or same-day access model	Appointments are not booked weeks or months in advance, rather each day starts with a sizable share of the day's appointments left open, and the remainder booked for those who elected not to come to the office on the day they called. ⁵
Length of in person visits	Using fewer and longer in-person visits and designated patient outreach, Group Health teams were able to integrate e-mail messages, telephone visits, and proactive care activities into their everyday work flow with a significant decrease in provider burnout. ⁵
Schedule gaps and specialists	Full schedules are set as the expectation for specialty physicians. Rather than allowing schedule gaps, specialists are scheduled to see general patients, adding flexibility to the system through active management of the scheduling system. ⁵
Failure to attend (FTA) rates can approach 30%	A successful approach used by Denver Health to maximize appointment utilization included the use of same-day appointments. Denver Health real-time access strategy was a 24/7 nurse advice line, which enabled vulnerable patients with complex lives and transportation challenges to access care when it was convenient for them. This line received over 100,000 calls per year, and patients often were able to use a lower level of care once they spoke to a nurse ⁵
Telehealth,	An initiative performed by a veterans hospital in the USA found that access to telemedicine reduced the number of hospital admissions by 20 percent ⁵
Better use of local environments – patients GP	One method of improving access involves decanting hospital access to more local environments, which would ensure a more stratified and distributed access to health care.

Referral management

Nuffield Trust, UK¹

- Develop closer relationships between referring clinicians (especially GPs) and consultants to facilitate a better understanding of the support they need. Combine education and practice where possible.¹
- For outpatient specialties with a whole population focus e.g. geriatrics, the specialist can adopt a population health management approach by working closely with primary care and specialist nursing to deliver proactive care – and avoid unnecessary referrals.¹
- Administrative referral management models which only apply rules and check referrals do not appear to be cost-effective and can introduce a nonvalue- adding step, delay and potential risk into the process.¹

Queensland Health, Australia²

QLD Health developed a Specialist Outpatient Implementation Standard which outlines a suite of business rules and processes for ensuring equitable access for all patients requiring specialist medical outpatient services. This was achieved by providing best-practice waitlist management processes aimed at facilitating treatment of patients within clinically recommended timeframes. The Standard contains information regarding the following:

- | | |
|---|-------------------------------------|
| • Internal referrals | • Booking and scheduling management |
| • Referral validity | • Appointment scheduling system |
| • Waiting list registration | • Appointment scheduling process |
| • Waiting list registration information | • Removals and discharge |
| • Waiting list management | • Discharge/transfer of care |

NHS, UK³

Peer review and feedback are features of many new referral management models. Peer review formats include:

- Weekly practice-level review meetings
- Written feedback between groups of referrers
- Multi-disciplinary cross-practice team meetings, often with consultants, to discuss key themes in referrals

Feedback from consultants on the necessity of referrals, referral letter content or expectations of pre-referral management is often welcomed by GPs and ensures hospital staff and clinicians have the information they need to correctly manage the patient

There are occasions when consultants decide to refer patients on to other consultants, within the same or different specialities or within the same or between different providers. These referrals often called consultant-to-consultant (C2C) referrals. Consultant-to-consultant referrals should only happen when it is in the best clinical interests of the patient or part of the clinical pathway for which the patient is being treated.

The Alfred, Australia⁴

The Alfred have developed a GP electronic referral system and education program. The e-referral system covers 3 types of referral (generic referral, speciality unit referral and condition specific referral) was trialled in 5 GP practices. The referral processing time went from 7 days to 1 day with no rejected referrals (18% prior). Referral time to triage down to one day from 48 days.

Further, an education program was developed to educate GPs on the following:

- Conditions appropriate for education identified.
- Online education models developed.
- Internet landing page for patient info and registration.
- Pathways developed to triage to right level of care.

Appointment scheduling and booking

Innovation and Best Practices in Health Care Scheduling⁵

Recommended practice is to use a systems-thinking approach focussing on technology and data to drive change.

- Application of a systems-thinking approach.
- Use of a disciplined approach to system redesign.
- Respect for people.
- Improving flow
- Determining Capacity: Balancing Supply and Demand

Flinders Medical Centre, South Australia⁶

Flinders Medical Centre used Lean thinking to redesign their Allied Health Outpatient Services.

Their aims were to simplify the complex booking & triage system through redesign of clinic booking template, and to release capacity for IP work and OP High Risk service from gains made from improved OP Clinic flow.

Flinders Medical Centre undertook the following changes:

- Move bookings from computer template to a single large hand written daily template sheet
- All staff to see all patients
- No named clinics
- Book to time needed, treatment room, & Podiatrist
- Multiples of 20 min (later 10) slot units - not set appointment length
- Book patients in order to next available appointment
- Pre allocated emergency slots in each session
- Plan Do Check (Study) Act cycles for review and planning

Staff found:

- Template easy to use -visual control
- Flexibility of 10 minute slots, adjustment required to anticipating right time for booking
- Positive use of small gaps and improved range of appointments across week for patients
- Enhanced capacity for inpatient work
- Now possible to see IP's on same day
- Enhanced rapport with ward staff
- All staff get IP experience now, generalist and specialist Podiatrist skills confirmed across team
- Helpful in time of vacancy, not lost when staff leave
- Average waiting time cut by 15 days to 10 days.
- Smaller numbers of failure to attend post-intervention.

Improving Primary Care Access⁷

The commonly used measure for outpatient appointment wait times is based on the IHI recommendations for "third next available" appointment. This is defined as an organization's goal for their performance with respect to patient access should be to achieve a TNA of zero for primary care and of 2 days for specialty care. Designed for use in outpatient primary care but also been adopted by many subspecialty practices. TNA is a more accurate assessment of actual appointment availability, rather than an opening due to a cancellation or acute event.

Managing clinic schedules ³

High-quality appointment scheduling and booking systems are integral to maximising clinic capacity, controlling patient flow, reducing overbookings and reducing failure to attend rates.

Best practice for patient scheduling and booking includes:

- Process flow modelling techniques to ensure clinic schedules that are optimally aligned to patient demand and clinic capacity
- Patient-focused booking systems based on finite booking periods (e.g. no bookings until 6 weeks before the actual appointment date) and offering patients a choice of appointment time
- Minimal or no overbookings
- Adherence to policies for removing patients from waiting lists for patients who fail to attend
- Use of initiatives to reduce FTA rates such as SMS or telephone reminders and patient education ⁹
- Treating patients in turn where possible.

Suggestions for managing clinic schedules are:

- Allocate appointments for urgent patients within the booking template, not as overbookings.
- Use historical data to estimate the number of appointments that need to be allocated for urgent patients while minimising carve out as much as possible.
- Consider filling unallocated urgent appointments with routine patients close to the clinic date.
- Book patients from the waiting list by date of referral receipt.
- Plan for foreseeable changes to staffing and other resources.
- Consider appropriateness of alternative clinic structures e.g. separate clinics for new appointments or registrar-led review clinic.

Alternatives to Outpatient Appointments ^{3,9}

Virtual interactions have the potential to free up clinician time and appointment slots, by reducing the time and space required for patient interactions including reducing FTA rates. Alternatives to traditional clinics include:

- virtual clinics – over email, skype or telephone; ⁹
- group consultations – more than one patient or clinician;
- nurse or other health care professional led consultations

Alternative forms of communication should be considered for follow-up appointments

- Early, virtual communication may be preferable with post-surgery or post-testing follow-ups
- Monitoring follow-ups are likely to be more effective if initiated/scheduled by the patient when needed, rather than set intervals
- One-stop clinics, where patients receive tests, diagnostics and in some cases treatment within a single appointment in one location, reducing the total number of appointments required

Group consultations: Group appointments have the potential to improve outpatient efficiency and effectiveness. ⁹

The appointments are generally divided into two:

- Part 1 an education session done with patients as a group, and
- Part 2 an individual session, which is more focused as information has been given at the group stage.

Advantages

- Groups can be taken by a nurse or other clinician
- Group appointment gives patients the opportunity to talk to people with similar illnesses/share experiences.
- Consultant can spend less time with each patient individually but that this time is more specific to them, rather than repeating the same general information to each patient.

Best practice example:

A 2011 study tested group education sessions at a Western Australia pain clinic. ¹⁰ The research examined a system change from traditional medical consultation to inter-professional group education plus patient request for pain medication. Patients completed a triage questionnaire assessed by clinicians then those with persistent pain were offered self-training educative pain sessions if they met the criteria. The number of patients who then requested individual appointments, wait times, unit cost per new patient referred, recurrent health care utilization, patient satisfaction. Following the education sessions, 48% of attendees requested individual outpatient appointments, wait times reduced and costs reduced significantly. ¹⁰

Electronic Consultation: A review of electronic consultation showed that it was feasible for many medical specialities and had application in primary consultation, second opinion consultation, tele-diagnosis and administrative roles (eg e-referral). System could be used to order investigations in advance of an appointment. ⁹

Best practice examples:

Non-medical clinics Bradford Haematuria Service³

Good monitoring of follow-up appointments can help to identify and reduce unnecessary outpatient appointments, thereby freeing up valuable clinical time for patients who really need it.

Patients who test negatively for pathology tests are sent a letter rather than waiting for a follow-up appointment, saving 300 clinic slots a year.

Management of waiting times⁸

Structured discharge criteria for out-patient clinics may help improve discharge consultations. The transition to community care can be facilitated by a management plan for the GP, including arrangements for further access to specialist care in the future and empowering patients to take responsibility for their care. Waiting list management in partnership with GPs may assist hospitals to maintain an accurate record of the patient's clinical priority and current demographic details. Engagement with GPs may also minimise FTA rates.

- Wait list audits provide insight into patients' ongoing needs, the accuracy of waiting times and demand for services.
- Team-based triage approaches to care in the out-patient setting have significantly improved waiting times. Extending the scope of practice of non-medical health professionals with the proper training has contributed to patient satisfaction and the efficient use of resources without notable adverse effect on patient outcomes.
- The expectations of patients need to be managed to ensure that there is no perception of compromise to quality of care delivered.

Waiting lists for specialist clinics need to be actively managed to ensure patients are treated equitably timeframes.

Queuing theory

Queuing theory is the study of waiting in lines. It can be applied to specialist clinic waiting lists. In theory, a single queue leading to multiple 'windows' will have shorter overall waiting times than a small queue in front of each window. Therefore, having many appointment types increases total delay in the system because each appointment type creates its own differential delay/queue.

Reserving part of a resource for one group while reducing resource availability to another group is known as 'carve out' and creates multiple queues in front of multiple 'windows'. This can lead to wasted capacity and reduced efficiency. 'Carve out' occurs in specialist clinics when there are multiple queues for different patient designations such as new, review, urgent, routine or post-operative. Some carve out maybe unavoidable

Waiting list validation¹¹

- Waiting lists for specialist clinic care are generally not subject to active management such as regular validation. As a result they often contains patients no longer requiring assessment. This contributes to high FTA rates.
- Best practice for adding patients to waiting lists is to pool non-urgent cases, and then treat in turn according to referral date.

Best Practice example:

Department of Health – waiting list validation project¹¹

In 2010–11 the Department of Health undertook a waiting list validation project. Twelve health services conducted a validation of specialist clinic waiting lists and estimated the waiting times for new patients to receive their initial appointment.

The waiting list validation led to 17,525 patients being removed from waiting lists across participating hospitals. Estimates of waiting times for new appointments, based on clinic capacity and number of waiting patients, improved by an average of 30%.

Failure to attend¹¹

Patients who do not attend clinics cause system inefficiencies which can result in overbooking and bottle necks in the system. A high failure to attend (FTA) appointment rate in a specialist outpatient clinic may indicate:

- long waiting times
- poor communication with patients including management of patient contact details
- patients unnecessarily referred for specialist assessment
- scheduling of unnecessary review appointments
- lack of opportunity for patient input on appointment time.

Methods successfully used to decrease the number of FTA patients include text, telephone, letter reminders. ⁹ Regular feedback to clinics about their FTA rates is recommended.

Best practice example:

St Vincent's Health – SMS appointment reminder pilot ¹¹

In 2010 St Vincent's Hospital piloted an SMS appointment reminder system to address FTA rates of 20-40% across selected specialist clinics. Patients were informed at the time of arranging their appointment that an SMS reminder would be sent unless they opt out. SMS appointment reminders were sent one week before patients were scheduled to attend the orthopaedic, urology or gastroenterology clinics. As part of the pilot, a dedicated telephone line was provided for rescheduling or cancelling appointments. On average, the FTA rate decreased by 33 %.

In 2012 SMS messaging was commenced across all clinics. The FTA rate dropped to between five and 15 per cent, which was a reduction of up to 25 % prior to the SMS system being introduced. SMS has led to an increase in rescheduling of appointments, which is preferable to patients failing to attend.

Implementing patient-focused booking ¹¹

Patient-focused booking empowers patients to take an active role in booking their specialist appointment, such as contacting the specialist clinic at their convenience to choose an appointment date and time within the clinic schedule. Ancillary services such as interpreters and transport may also be coordinated when booking the appointment.

Patient-focused booking offer the following benefits to specialist clinics:

- Maximised clinic capacity.
- Better-controlled patient flow.
- Reduced cancellation and FTA rates.
- Reduced burden of rearranging appointments.
- Improved patient satisfaction.

Best Practice Example – patient-focused booking:

Hutt Valley District Health Board (New Zealand) ¹¹

Following a visit to the National Health Service in the UK, the Hutt Valley District Health Board in New Zealand introduced patient-focused booking. Baseline data was collected on FTA rates, cancellation rates and administrative 'rework'.

Patient-focused booking was rolled out by specialty. This involved sending patients a letter inviting them to contact the health service to arrange a mutually agreeable appointment time. Critical requirements were that appointments were not booked more than six weeks in advance, and that senior doctors be required to give six weeks' notice of leave.

An evaluation for each speciality was completed after implementation. Reported benefits included:

- *sustained reduction in FTA rates from 13–15 % to 7–8 %,*
- *reduction in cancellations and administrative 'rework' and increased patient satisfaction.*

Time to wait: a systematic review of strategies that affect out-patient waiting times. 2018 ⁷

The systematic review aimed to identify and categorise effective strategies to reduce waiting times for specialist out-patient services with a focus on the Australian healthcare system. In all, 152 articles were screened, of which 38 were included in the present review.

The findings suggest that there are numerous operational strategies that affect waiting times. These strategies may be categorised into three overarching themes (resource alignment, operational efficiencies and out-patient processes) that, when actioned in a coordinated approach, have the potential to significantly reduce out-patient waiting times. Twenty-one per cent of the publications were primarily concerned with resource alignment, 18% were concerned with operational efficiency and 61% with process improvement.

Process improvement strategies included: ⁷

- aligning processes with organisational priorities, assessment and benchmarking;
- automation of scheduling times;
- capacity planning, and efficient use of existing resources;
- clinical staff improving processes, decreased production variation and patient care optimization by GP guidelines;
- computer simulations (doctor idle time, day-dependent no-show predictions, patient arrival time);
- control and reduction of variation in demand and capacity;

- elimination of waste related to delays, repeated encounters and errors;
- eReferrals;
- no-show modelling;
- patient text messaging;
- telemedicine

The recommendations that were the most effective were automation of processes like scheduling with eReferrals, telemedicine and patient text messaging. Improvements in process performance may be achieved by systematically identifying the sources of variability at different stages in the process and taking steps that mitigate the undesirable effect of variability. Waste is related to delays, preparation times, referral management and booking procedures.

Operational efficiency ⁷

Operational efficiency with time management strategies maximizes capacity within the clinics and may have a significant effect on the overall waiting times for patients. Strategies included:

- clinics starting on time;
- improved allocation of appointment slots;
- avoiding large blocks of patients (congestion);
- advanced access (offering patients same-day appointments);
- advanced access at provider, clinic and network levels;
- a single queue for all patients and a one-stop diagnostic clinic;
- appropriate time allocation for new and follow-up patients;
- Strategies aligning supply with demand for services.

The strategies that had the most effect were scheduling initiatives, advanced access and aligning supply to demand. Scheduling initiatives (clinics starting promptly, allocation of appointments and time management) have a demonstrated effect on decreasing waiting times for patients. This enhanced access provides a same-day appointment for patients requesting access to services. Conflicting stakeholder priorities offer challenges to achieving operational efficiency.

Resource alignment: ⁷

Resource alignment focuses on the internal alignment of resources to better manage out-patient waiting times.

Strategies included:

- limiting referrals to specialists either absolutely or the use of incentives to limit referrals;
- wait list audits;
- discharging patients into GP care;
- Triaging patients by another health professional rather than administrative processing.

The strategies that had the most effect on waiting times were rationalizing referrals, triaging of patients and wait list audits. Wait list audits provide important information on patients' ongoing needs and the accuracy of waiting times and demand for services. This will help hospitals currently managing long wait lists and wait times for patients.

To facilitate a better transition from the out-patient clinic to primary care, discharge consultations in the out-patient clinic should be a high priority and allocated sufficient time. Patients should be prepared for discharge one visit in advance, and reasons for discharge should be made clear. Structured discharge criteria for the out-patient clinic may help improve discharge consultations. The transition to community care can be facilitated by a management plan for the GP, including arrangements for gaining further access to specialist care in the future and empowering patients to take responsibility for their care.

A note of concern: Triaging of outpatient referrals is intended to prioritise urgent patients. However, this has the unintended effect of placing most patients at a disadvantage, because they are not deemed urgent. Extending the scope of practice of non-medical health professionals with the proper training has contributed to the efficient use of resources without any notable adverse effect on patient outcomes. This offers an alternative for the management of out-patients.

Follow-up¹

Getting follow up right: allow flexibility

Many follow-up appointments are automatically scheduled after an initial consultation or procedure – regardless of patient outcomes. That means consultants are often adding little value to patients – particularly in specialties where the scheduled follow-up appointment is unlikely to coincide with any problems arising such as oncology or COPD.

Barriers to appointment booking

In 2010, an audit of Royal Bolton Hospital general outpatient clinics was carried out to understand the barriers preventing a smooth process of appointment booking and treatment. Key areas identified were: Patient wait time, poorly managed clinic lists and appointment bookings, double booking appointments, case note management.

Factors that affect access to outpatient visits include:

- System design
- Geographic availability
- Hours of operation
- IT capability
- Availability of providers (numbers, individual preferences)
- Provider expertise
- Capability of patients
- Patient preference
- Patient transportation
- Patient insurance status
- Provider accountability
- Practice management

Factors associated with long waiting times

- Overbooking
- Staff arriving late
- Difficulty accessing interpreters
- Unavailability of necessary patient information
- Lack of medical equipment
- Patient transport services

Implications for practice

The review highlights important factors associated with best practice in specialist outpatient services in the hospital setting. We suggest that the findings can be used to initiate the collection and analysis of data for example on

1. Historical rates of attendance and scheduling processes
2. Minimum, median and maximum clinic volumes in addition to the average
3. Analysis of FTA rates to identify recurring themes, particularly in relation to specific clinics or patient groups.

The improvement of waiting times, failure to attend rates, the use of alternative outpatient appointments and effective appointment scheduling is a multi-factorial and complex issue that involves a diverse range of stakeholders and systems as well as an appreciation of change management and to get stakeholder buy in. Starting small, identifying champions that will help manage stakeholders concerns and good communication will be critical to improving waiting times, reducing failure to attend, ensuring a positive patient and provider experience.

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Appendix 1. Search Strategy

A search was carried out across grey literature databases to find evidence on best practice in outpatient services, outpatient bookings and managing the rate of failure to attend. Table A1 outlines the databases and number of articles screened. Articles were screened and selected according to the criteria in Table A2. Only articles in English, published from 2010 onwards, were considered.

Table 1A. Database searches

Search term: "outpatient scheduling" or "outpatient services" and "hospital"

Source	Results
Institute for Healthcare Improvement	3
Health Foundation	1
Google	100
Epistemonikos	2
NICE	2
SIGN	1

* *deduplicated*

Table 1B. Inclusion/Exclusion criteria

Population	Include: All types of hospital patients Exclude: Community, Primary Care, Nursing Homes
Context	Include: All but with a focus on UK, US, Canada, Australia, Europe, New Zealand
Types of evidence	Include: Peer-reviewed, grey literature (synthesized) Exclude: All other types of information, qualitative systematic reviews
Limits	Published in English; Humans; 2010 – current

Appendix 2. Table 1. Details of findings

General redesign principles	
<p>Nuffield Trust, UK.¹</p>	<p>The Nuffield Trust held an event in collaboration with NHS Improvement to hear from health leaders across the country who have made significant changes to their outpatient services. In most cases, they found clinicians had taken a sub-specialty and had worked hard to understand where every member of staff could add the most value at each stage of the patient journey.</p> <p>The following overarching principles emerged:</p> <ul style="list-style-type: none"> • Outpatient redesign works best when it is focused and led by the clinicians who are delivering it. This trumps commissioner or managerial direction – as one participant put it, “clinicians are fed up of having things done to them”. Clinicians, therefore, need the time and space to make changes and experiment with different models, overcoming challenges as they arise. The redesigns we heard about were more effective for having been a team activity with a senior clinician driving the process. • Use data to reinforce new ways of working. We heard particularly good examples of using data to enable consultants to take on a population health approach, or to change the culture around missed outpatient appointments. • Renegotiate the tariff locally. Currently, new service models (e.g. remote consultations) are not effectively addressed in the standard national tariff, though NHS Improvement is exploring tariff options to support digital outpatient delivery. Changes in activity and patient case mix should be taken into account when negotiating prices locally. Guidance is available in section six of the 2017/19 national tariff. • Design the service based on a thorough understanding of the tasks that need to be done. Think about whether it is advice, diagnosis, providing an intervention, long-term management, monitoring progress, following up treatment or some other role. Based on the task at hand, consider using alternative consultation models such as virtual clinics or group consultations. <p><i>The following specific messages are aimed at particular parts of the outpatient pathway – although some may apply more broadly.</i></p> <p>Getting referral right</p> <ul style="list-style-type: none"> • Develop closer relationships between referring clinicians (especially GPs) and consultants to facilitate a better understanding of the support they need. Combine education and practice where possible. • For some outpatient specialties (particularly those with a whole population focus), the specialist can adopt a population health management approach by = working closely with primary care and specialist nursing in order to deliver proactive care – and avoid unnecessary referrals. • Administrative referral management models which only apply rules and check referrals do not appear to be cost-effective and can introduce a nonvalue-adding step, delay and some potential risk into the process (Ball and others, 2016). <p>Improving outpatient clinics and getting follow-up right</p> <ul style="list-style-type: none"> • Examine the patient journey from start to finish • Work with patients to change the model and enable greater flexibility. Patients can, with the right support, make decisions about what they need (e.g. follow up) or provide information in ways that can make major changes to the model possible. • Redesign staff roles: in some clinics there is a significant opportunity to make better use of scarce skills by changing skill mix. <p>Redesign takes a lot of time and is not straightforward. It is easy to overestimate what is possible in the short term and to underestimate how much clinicians need to invest in the process. There is no one-size-fits-all solution. Outpatients is not one service, even within a particular specialty. Each clinic is likely to require different design solutions and interventions. Generic planning assumptions about changes in outpatient services are likely to be misleading and fail.</p>

	<p>Getting follow up right: allow flexibility Many follow-up appointments are automatically scheduled after an initial consultation or procedure – regardless of patient outcomes. That means consultants are often adding little value to patients – particularly in specialties where the scheduled follow-up appointment is unlikely to coincide with any problems arising such as oncology or COPD.</p>
Referral management	
QLD Health ²	<p>Access to specialist outpatient services is only possible through the lodgment of a written referral from a recognized referral source.</p> <p>Internal referrals A new referral that is generated from within the same hospital to refer a patient to either:</p> <ul style="list-style-type: none"> • a different specialist outpatient service or the same specialist outpatient service but for a different/new reason for referral. <p>Referral validity Referrals are considered to be a form of clinical handover and as such, must provide adequate information for safe transfer of care. In order to be accepted, the referral (both internal and external) must:</p> <ul style="list-style-type: none"> • contain adequate information to allow for informed categorisation of clinical urgency, prioritisation and direction of patients to the appropriate specialist outpatient service • comply with Clinical Prioritisation Criteria where CPC are available • be received in writing, either in hard copy or via an approved electronic method. <p>Waiting list registration</p> <ul style="list-style-type: none"> ▪ All referrals received be recorded on an electronic waiting list system from the time that the HHS receives the referral until the patient has been removed from the waiting list. ▪ A referral received by a specialist outpatient service that is allocated an urgency category is referred to as an ‘accepted’ referral. <p>Waiting list registration information The information to be entered on the specialist outpatient waiting list information system upon registration must include:</p> <ul style="list-style-type: none"> • unique patient identifier (for example (Unit Record Number (URN)) • patient’s demographic details (first and second name, family name, sex, date of birth, indigenous status) • patient’s contact details (address including suburb and postcode, contact telephone numbers) • referral source type and referring practitioner’s details • nominated general practitioner’s details, if the nominated general practitioner is different from the referring practitioner • date of the referral and date the referral was received by the hospital • clinical urgency category assigned to the referral (section 3.7.4: <i>Urgency category assignment</i>) • clinic/service area the referral is allocated to (consultant/clinician name if known/applicable) • allocated service provider and reason for referral (provisional diagnosis) • date/s of any appointments booked against the referral • an indication of whether the booked appointment/s are to be provided in a group session <p>Waiting list management Urgency categorisation review and re-categorisation Referring practitioners (and nominated general practitioners where not the same) should be notified of the need to monitor the patient’s clinical condition and communicate any changes to their condition, in writing, to the specialist outpatient service. If changes in the patient’s clinical condition occur, the triaging clinician will review the additional information and a determination regarding a change to the patient’s urgency category must be made within five (5) business days of receipt of information.</p>

Notification of any changes to the urgency category of patients registered on the specialist outpatient waiting list, or the decision not to change the patient's urgency category must be maintained in the patient's medical record and the specialist outpatient information system and communicated, in writing, to the patient and the referring practitioner within five (5) business days of the decision to re-categorise.

Re-categorisation should not be used to manage waiting times and the urgency category should not be influenced by the availability of hospital or specialist resources.

Booking and scheduling management

Appointment prioritisation

Allocation of appointments for patients accessing specialist outpatient services is based on prioritisation according to clinical urgency categories.

Patients within the same urgency category should be provided a service in the order they are placed on the waiting list.

It is reasonable that some patients are seen more urgently within an urgency category because of factors such as:

- Patient acuity/ pathological process/patient co-morbidities/medication requirements/ patient, social and community support
- patient access factors (e.g. distance of residence from the treating hospital; availability of transport and accommodation).

Appointment scheduling system

HHSs must utilise and maintain an electronic appointment scheduling system. The system must comply with the requirements of the Department of Health in the collection and collation of activity and performance data required to meet State and Australian Government reporting obligations.

The requirement to use an appointment scheduling or booking system applies to both new and review appointments, and must:

- be used to record details of the referral from the time the referral is accepted
- have the capability to capture information on patients who are booked for an appointment but have not yet been seen in a specialist clinic
- record relevant details about the patient and their appointment, including date of the appointment and attendance history
- facilitate the immediate booking of 'urgent' patients within the accepted timeframe (30 calendar days) from when they are placed on the specialist outpatient waiting list
- record the outcome of the consultation e.g. if a patient is subsequently placed on an elective surgery waiting list
- have the capacity to record requirements for multidisciplinary clinics as per the QLD Health Non Admitted Patient Data Collection manual.
- All records of the patient's referral and subsequent appointments will remain on the electronic appointment scheduling system.

Appointment scheduling process

Responsibility for arranging specialist outpatient service appointments must be given to designated staff. The designated staff must arrange specialist outpatient service appointments within the clinically recommended timeframe for the patient's assigned urgency category. If designated staff are unable to arrange appointments in the clinically recommended timeframe, a member of the executive management team will assume responsibility for expediting access to specialist outpatient services.

- Patients should be booked into staggered appointment times (whether individual or group) and the process of booking block appointments for an outpatient clinic should not be used.
- Effort should be taken to ensure appointments take place at, or as close as possible to the scheduled appointment time. Appointment times should be arranged to facilitate patients being seen by the same clinician/specialist team each time. A system of patient confirmation of attendance should be implemented. Partial bookings should be used to record appointments until such time as they are confirmed. Patients must be offered an appointment date up to and not more than six (6) weeks in advance.
- If a patient does not confirm or fails to respond to the offer of appointment within 14 calendar days of the offer being made, the appointment should be allocated to the next appropriate patient.

Implement processes and procedures that maximise the number of patients seen within clinically recommended timeframes by:

- ensuring processes are in place to support load sharing across facilities in an HHS for specialist outpatient services to optimise patient throughput and reduce waiting times
- actively monitoring the effectiveness of failure to attend (FTA) management strategies
- implementing best practice processes in relation to specialist outpatient services templates, including but not limited to:
 - ensuring all new case appointment slots are filled for each clinic session

	<p>- allocating individual appointment times for patients on the clinic template that reflect the patient's urgency category and clinical complexity</p> <p>HHSs must ensure that the best interests of the patient take precedence over the interests of the HHS. This includes not staggering appointments over a number of days when scheduling clinic appointments for more than one specialty and by coordinating appointments so they are on the same day whenever possible. Where a patient is booked for a multidisciplinary clinic appointment, HHSs must ensure that all care provided for the patient occurs in a single clinic appointment.</p> <p>Removing patients from the specialist outpatient waiting list</p> <p>Removal of a patient's referral from the specialist outpatient waiting list should only occur for the following reasons:</p> <ul style="list-style-type: none"> • A clinical review or administrative audit, has determined that the specialist outpatient service is no longer required. • The treating specialist requests removal of the patient from the waiting list for clinical reasons. • The patient no longer requires the care for the reason for referral • The patient is deceased • the patient has: <ul style="list-style-type: none"> - has been seen for their initial appointment - requested to be removed - advised they have or will be attending elsewhere for treatment for the same reason for referral under their own arrangements - accepted transfer to another public hospital and the receiving hospital has confirmed acceptance of the patient onto their waiting list - been outsourced to another private facility and has been treated - commenced an alternate pathway of care; eg. allied health - declined two offers of appointment - exceeded their NRFC threshold for their assigned category, following clinical review - the patient fails to attend, cancels and /or declines two confirmed offers of an appointment for the same reason for referral whether the appointments are consecutive or not - The patient failed to respond to two audit measures (clinical and / or administrative) within a minimum of 14 days from the second audit measure. <p>Where a patient has received treatment at another hospital, the HHS should ensure that they have appropriate procedures and processes in place to adequately document and confirm with the patient that they have received the treatment at the hospital prior to removal from the waiting list.</p> <p>When a patient's referral is removed from the specialist outpatient waiting list:</p> <ul style="list-style-type: none"> • The patient's referring practitioner and the treating specialist must be notified including details of the reason for removal, date of removal and who to contact if they have any queries. • Appropriate documentation must be maintained in the patient's medical records. <p>Discharge/transfer of care</p> <p>A patient's ongoing management must be transferred from specialist outpatient services when the single course of treatment is completed, predetermined discharge criteria have been met or another health care provider can more appropriately provide the service. Discharge / transfer of care planning should commence at the initial encounter and must continue through to the patient being referred to another service for ongoing care and / or to the care of the referring practitioner. If a patient has attended two or more review appointments with a registrar, any subsequent appointments must include a review by a consultant to determine whether discharge may be appropriate. A discharge / transfer of care summary must be provided to the referring practitioner and an ongoing management / action plan must be included with the discharge summary in order to minimise premature re-referral.</p> <p>Care pathways incorporating options for self-management and / or evidence-based management by alternative service providers (e.g. allied health practitioners and nurses) be developed and implemented.</p>
<p>NHS England - Demand Management Good Practice Guide³</p>	<p>Peer review of referrals</p> <ul style="list-style-type: none"> • Peer review and feedback are features of many new referral management models to regulate and improve the quality of referrals, providing a further opportunity for 'Advice and Guidance' to be provided to GPs and other referrers • A report by the King's Fund determined that "A referral management strategy built around peer review and audit, supported by consultant

	<p>feedback, with clear referral criteria and evidence-based guidelines is most likely to be both cost- and clinically-effective."</p> <ul style="list-style-type: none"> •Peer review can take a number of formats including: <ul style="list-style-type: none"> • weekly practice-level review meetings • written feedback between groups of referrers • larger multi-disciplinary cross-practice team meetings, often including consultants, to discuss key themes in referrals •Improved feedback loops in referral processes, including specialist review and feedback of referrals, complement review between GPs <ul style="list-style-type: none"> • Feedback from consultants on the necessity of referrals, referral letter content or expectations of pre-referral management is often welcomed by GPs and ensures hospital staff and clinicians have the information they need to correctly manage the patient <p>Consultant to consultant referral protocols</p> <ul style="list-style-type: none"> •There are occasions when consultants decide to refer patients on to other consultants, within the same or different specialities or within the same or between different providers. These referrals are often called consultant-to-consultant (C2C) referrals. •The number of consultant-to-consultant referrals has been increasing in recent years and is the main source of non-GP referrals. •Consultant-to-consultant referrals for a new or different treatment start a new RTT clock. <p>For many providers consultant-to-consultant referrals are poorly tracked and this has implications on hospital payments and remove responsibilities from primary care for holistic patient care.</p> <ul style="list-style-type: none"> •Consultant-to-consultant referrals should only happen when it is in the best clinical interests of the patient or part of the clinical pathway for which the patient is being treated.
The Alfred ⁴	<p>1) GP E-referral system</p> <p>3 types of referral developed: Generic referral, Specialty unit referral, Condition specific referral</p> <p>5 GP practices selected to trial. Results: Referral processing time went from 7 days to 1 day. No rejected referrals compared to 18% previously. Referral time to triage down to one day from 48 days.</p> <p>2) Education program</p> <p>Conditions appropriate for education identified.</p> <ul style="list-style-type: none"> ▪ Online education models developed. ▪ Internet landing page for patient info and registration. ▪ Pathways developed to triage to right level of care.
Scheduling	
Brandenburg et al 2015 ⁵	<p>Innovation and Best Practices in Health Care Scheduling</p> <p>This discussion paper describes the important forces shaping wait times throughout health care, the evolving use of techniques and tools from other industries to improve health care access, and the move toward a person-centered model of care. The overarching principle was to use a systems-thinking approach focussing on technology and data to drive change.</p> <p><u>Application of a systems-thinking approach.</u></p> <p>Important to recognize that organizations are complex groups of interdependent processes, personnel, and incentives. For example, looking beyond the immediate problem of delayed clinic visits enabled problems with referrals for subspecialty appointments, difficulties with weekend discharges, or</p>

	<p>inadequate communication during appointment requests to be identified. A systems-level approach ensures that all aspects of a complex system are considered, including how the system elements interact with one another over time.</p> <p><u>Use of a disciplined approach to system redesign.</u></p> <p>Lean focuses on eliminating waste from the patient perspective to achieve uninterrupted flow from the beginning to end of the process. All the steps in the process represent a value chain—or the “value stream.” Lean uses an array of tools to see the waste and barriers and to remove the waste in every flow of work (Graban, 2008; Gabow and Goodman, 2015). Six sigma is another management technique aimed at eliminating defects by reducing variations, in order to enable more capable products and processes (Revere and Black, 2004). The use of a disciplined approach removes blame and politics.</p> <p><u>Respect for people.</u></p> <p>As a pillar of Lean philosophy, respect for people also refers to those working in our medical practices or hospitals. This includes a culture that gives everyone the tools and the opportunity to become problem solvers; enhances individual creativity, values teamwork; and engenders communication, trust, and respect between frontline staff and senior levels of management.</p> <p><u>Determining Capacity: Balancing Supply and Demand</u></p> <p>Seattle Children's also uses a centralized scheduling center coupled with a standardized process to manage schedules and fill vacancies, using real-time communication to troubleshoot in order to yield a more streamlined and efficient process.. An increase in demand for evening appointments was met with the addition of evening clinics and based on trending data for hourly, weekly, and seasonal variation.</p> <p>Redesign of Clinic Work</p> <p>Outpatient clinics have applied Lean techniques to improve patient flow with the creation of standard work, a fundamental tool for improvement. If the office visit length for a particular provider exceeds the patient arrival rate (also known as Takt time—available time in minutes divided by demand for visits during that time), patient waiting is unavoidable.</p>
<p>IHI Third Next Available Appointment Improving Primary Care Access⁷</p>	<p>Improving Primary Care Access</p> <p><u>Definition:</u> Average length of time in days between the day a patient makes a request for an appointment with a physician and the third available appointment for a new patient physical, routine exam, or return visit exam.</p> <p>The "third next available" appointment is used rather than the "next available" appointment as it is a more sensitive reflection of true appointment availability. For example, an appointment may be open at the time of a request because of a cancellation or other unexpected event. Using the "third next available" appointment eliminates these chance occurrences from the measure of availability.</p> <p><u>Goal</u></p> <ul style="list-style-type: none"> • Decrease number of days to third next available appointment to zero days (same day) for Primary Care. • Decrease number of days to third next available appointment to two days for Specialty Care. <p><u>Data Collection Plan:</u> Sample all physicians on team the same day of the week, once a week. Count the number of days between a request for an appointment (e.g., enter dummy patient) with a physician and the third next available appointment for a new patient physical, routine exam, or return visit exam. Report the average number of days for all physicians sampled. Note: Count calendar days (e.g. include weekends) and days off. Do not count any saved appointments for urgent visits (since they are "blocked off" on the schedule.) Manual collection means using the schedule book and counting from the "index" (day when the "dummy" appointment is requested) to the day of the third available appointment.</p>