Reduced waiting times for the GP: two examples of "advanced access" in Australia

Andrew W Knight, John Padgett, Barbara George and M R Datoo

ABSTRACT

- "Advanced access" is a set of change principles for improved scheduling in office-based health care, widely applied in the United States and in the United Kingdom.
- Examination of advanced access in two Australian general practices indicates it is feasible in this country and may offer improvements in patient access to care, practice income and workplace conditions.
- Rigorous evaluations of advanced access are lacking, but in the Australian National Primary Care Collaborative, 300 practices will implement advanced access, providing an opportunity for a rigorous evaluation of these principles.

MJA 2005; 183: 101–103

Australians report that their ability to get a timely appointment with their general practitioner is of significant concern.[1,2] "Advanced access" is a set of principles for improving appointment systems in office-based health care.[3] It applies queuing theory and principles of industrial engineering to doctors' appointment books (Box), and its underpinning principles are:

- continuity (maximising access for patients to their usual doctor); and
- capacity (freeing up future appointments by doing today's work today).[3]

Through the quality improvement movement,[4] the idea of advanced access has been applied in many primary care, specialist and public health services throughout the United States.[7] The principles have also been applied in the United Kingdom to more than 5000 practices serving 32 million patients.[8] Advanced access changes are about to be implemented by 300 general practices throughout Australia under the $15 million federally funded National Primary Care Collaborative (NPCC).

In preparation for the NPCC initiative, we searched for practices in Australia that had tried to implement advanced access. We identified three practices, but could not obtain data from one. Thus, we describe the experiences of two practices. Data were obtained by phone interview with one doctor and one administration staff member from each practice. Case descriptions were transcribed and "fed back" to each practice with changes made in response to comment.

Practice 1

The situation

In 2003, the Kooringal Medical Centre in Wagga Wagga, NSW, was staffed by four full-time GPs, one 0.6 full-time equivalent (FTE) GP and 6.5 FTE administrative staff. Wagga Wagga is a city in rural New South Wales with a population of about 56 000.

Staff and doctors had been experiencing low morale. The wait for routine appointments was up to 55 days. The appointment system was unwieldy, with a multitude of appointment types, such as emergency spots and special script appointments. The system required "fit ins" every day and extensive phone triage by reception staff. Patient complaints were frequent.

Up to 120 appointments — almost a full week's work for one doctor — were being lost each month through patients failing to keep appointments ("did not attends", DNAs). Staff felt the DNAs were occurring because patients booked long in advance to ensure access, and then either forgot the appointment or decided they did not need to see the doctor.

The changes

Taking advice from Murray,[3,4,7] reception staff monitored appointment demand for 5 weeks using a tally sheet to record each request for an appointment. Surprisingly, demand proved finite, predictable and about equalled the practice's appointment capacity.

In accordance with the advanced access model (Box), the practice tried to work down its backlog, but was unable to reduce it significantly. Therefore, reception staff stopped booking patients beyond a set date and changed staff rosters to match the daily demand. For example, some doctors were asked to move their sessions to high-demand days such as Mondays and shift pre-booked "elective" work, like excisions, to lower demand days. Leave was limited for doctors and administrative staff around the start date. On the actual start date, all staff committed to staying at work until all patients had been seen. Patients were informed about the changes, and were limited to booking a maximum of 5 days ahead.

The outcome

Since October 2003, the practice has been able to offer same-day appointments. DNAs have fallen to about 20 per month, freeing 100 appointments per month. Practice income rose by about 8% over the previous 12 months and in the absence of significant changes to Medicare rebates. Staff believe the rise in income was due to the decrease in DNAs as well as an increased opportunity to manage chronic disease using Extended Primary Care item numbers.

Morale greatly increased. Doctors felt they were now seeing patients earlier in their illnesses and were able to intervene before deterioration; they also reported a greater sense of control over their working day. Greater continuity of care has been achieved,

WentWest Ltd, Parramatta, NSW.
Andrew W Knight, MB BS, MMedSci(ClinEpid), FRACGP, Director of Education.
Kooringal Medical Centre, Wagga Wagga, NSW.
John Padgett, MB BS, DRANZCOG, FRACGP, General Practitioner;
Barbara George, Practice Manager.
Cootamundra, NSW.
M R Datoo, MB ChB, FACCRM, General Practitioner.
Reprints will not be available from the authors.
Correspondence: Dr Andrew W Knight, WentWest Ltd, PO Box 9272, Parramatta, NSW 2154. andrew.knight@wentwest.com

Steps to achieve advanced access[3-6]

1 Balance supply and demand

Prospectively measure daily demand for appointments by patients (external demand) and doctors (internal demand). This is often done using a simple tally sheet. Supply (capacity) is easier to measure as it equates to how many appointments the practice offers over the week. Knowing actual demand and supply allows practices to reduce gaps between the two by reallocating return appointments to low demand days and rescheduling doctors' shifts to match the demand (for example, more doctors on Mondays).

2 Work down the backlog

This is the hardest part of the process, as it involves working harder to see more patients for a period of time. This is done once, at the start, and should not need repeating.

Strategies include:

- adding capacity, by clinicians doing longer hours or extra shifts, or by employing locums.
- choosing a target date on the calendar and agreeing as a group that visits will not be pre-scheduled beyond that date.
- pulling work out of the future into today by maximising the value of time with each patient. For example, if a patient is being seen for a sore throat, the doctor might say, "I see you're scheduled for a blood pressure check in 2 weeks. Let's take care of that today."
- questioning the frequency with which doctors bring patients back to the office for follow-up. These intervals are often based on habit or culture rather than clinical importance.

Remember that there is good backlog and bad backlog. Good backlog involves two kinds of patients: those who do not want an appointment today (some say no more than 25% of patients), and follow-up visits booked by clinicians based on clinical necessity. Bad backlog involves any other patient that the practice deflects into the future.

3 Reduce the number of appointment types

Scheduling systems work best when they are stripped of complexity and layers of rules, which lead to error and confusion. The key question is "Is the patient's doctor available today?" If so, the patient sees that doctor today. If not, the patient can choose to see another doctor today or their own doctor on a future day. Appointment lengths are standardised (eg, 15 minutes) with multiples of that time used if required. In advanced access, there are no reserved emergency appointments, as practices are confident that they start the day with enough capacity to meet the day's demand.

4 Plan for contingencies

Plan for variations to either demand or capacity. Make policies for busy times such as planned absences (education; holidays), unplanned absences (illness) and variations in demand (eg, epidemics; influenza vaccination season). Examples of contingency plans may include a temporary increase in physician hours while another doctor is away or sick, extra shifts after public holidays, and increased use of practice nurses for some services.

5 Reduce and shape the demand for visits

The experience of many organisations is that, when patients are confident they can see their own doctor at the time they wish, demand for appointments decreases. Other strategies include pulling demand into today by doing everything that can be done at the same visit, strategic use of telephone or email consulting, group consultations, and patient education in self-management to allow safe increase in interval between follow-up visits for chronic disease care or other requests for care.

with patients more likely to see their doctor of choice. The changes have freed up practice capacity, allowing doctors to institute systematic diabetic care planning, which has resulted in a reduction in overall practice glycosylated haemoglobin (HbA_{1c}) levels. Reception staff reported greatly improved working conditions, related to having to spend less time triaging patients, explaining unavailability and searching for appointments.

Patients were initially concerned at being unable to book weeks in advance. However, confidence in the system grew and staff report generally high levels of satisfaction. Nevertheless, some patients still want to be able to book further ahead, and some exceptions to the 5-day rule were made in response to patient need. Importantly, follow-up appointments initiated by the doctor may be made at any time — that is, the 5-day rule does not apply to doctor-initiated appointments. Unfortunately, recent medical staff losses have reduced practice capacity and have made it difficult to meet all demand on some days.

Practice 2

The situation

Practice 2 is a solo practice in Cootamundra, a small town (about 7500 people) in rural NSW, staffed by a GP anaesthetist, a practice nurse/administrator and a 0.75 FTE receptionist/administrator. The doctor, his staff and patients were dissatisfied because the doctor continually ran late and was constantly booked 2–3 weeks in advance. Each day began with some reserved emergency appointment time, but, with most of the day booked, extra emergency bookings had to be squeezed in. Staff members were required to triage urgent patients, which meant that less urgent patients could not get appointments when they wished to. If presenting patients required urgent attention, the doctor frequently had to work longer — often up to 8 pm rather than 5 pm.

The changes

This practice heard about the changes made in Practice 1 and sent one of their staff to learn what had been done. Practice 2 felt sure their demand far exceeded their appointment capacity but, to assure themselves of the predictability of demand, they used a tally sheet to record all requests for appointments for 6 weeks — demand and capacity were in balance at about 30 appointments per day.

Practice 2 selected a day 3 weeks in advance and did not book patients beyond that date. Patients were given a flyer explaining the advanced access system and why appointments into the future would no longer be made. The flyer sought to reassure patients that they would be seen on the day they wished to be seen.

The outcome

In the first 2 weeks of advanced access, reception staff had to field an increased number of phone calls and explain the new system to allay patient concerns. All staff initially worked longer hours to fit all patients in on the day. However, the practice soon adjusted and patients became confident that they did not need to book weeks in advance. Since inception of advanced access, the

practice has only offered same-day appointments; this change has been sustained for 8 months.

Gross income, compared on a monthly basis with 12 months previously, increased 18% in the absence of significant changes in Medicare rebates. Staff members have commented that in a solo practice there are many factors that may have caused this fluctuation. However, contributing factors were likely to be the reduction in DNAs, which have fallen from about 10 per month to less than one per month, and the increase in chronic disease care and use of Enhanced Primary Care items.

Doctor, staff and patients report high satisfaction with the system.

Discussion

These two case reports demonstrate that advanced access is feasible within the current Australian general practice business environment. It is quite likely that other practices and institutions have used these principles in Australia.

In both practices, only Parts 1 and 3 of the model were applied (Box). A principal strategy reported here — the setting of a future date and restricting appointments after that date — is not a fundamental principle in advanced access, although it is a common implementation strategy.[9] In particular, Practice 1 limited future appointments to no more than 5 days ahead. Although this may improve sustainability of the changes by preserving future appointment capacity, there has been concern that it may reduce the ability to timetable chronic disease care.[10,11] However, Practice 1 found that the changes made allowed time to systematically implement care planning for patients with diabetes (the doctors could pre-book these appointments), which the practice believes has improved control of this disease.

Neither practice felt able to work down the backlog of appointments as described in the original model. Both practices believe the backlog was eventually managed with the cooperation of patients, reduced "wasted" DNA appointments and reduced unnecessary repeat appointments that had previously been caused by lack of same-day access to the clinician — for example, an urgent "fit in" for a repeat prescription with a later repeat booking to deal with clinical problems.

Neither practice attempted to reduce and shape the demand for visits (Box). Better use of practice teams and patient self-management education are examples of strategies that may adjust demand for appointments.

The perceived benefits described in our case reports mirror evaluations carried out overseas. An evaluation of the UK initiative found the mean time to the third available routine appointment fell in 66% of the 462 evaluated practices from an average of 3.6 days to an average of 1.9 days.[10] Some participants reported greater control of workload, improved staff morale, fewer missed appointments and a perception of increased patient satisfaction. Many expressed concerns about the amount of work involved in implementing advanced access. A lack of resources, a lack of time and the resistance of colleagues were perceived as constraints. However, only 8% of responding GPs expressed concerns that immediate access or a reduced ability to book ahead might have a negative effect on aspects of primary care, such as continuity of care and choice of doctor. Importantly, patients do not want advanced access to limit their ability to book appointments by phone or at a time of their choosing, or limit continuity of care.[12]

Access to one's physician of choice and continuity of care are fundamental principles in the original advanced access model, and are believed to contribute to the efficient adjustment of demand.[3] Practice 1 chose access to the preferred physician as an important goal in its implementation of advanced access, and credited success in this area with decreasing demand. This is consistent with overseas opinion,[3] and UK experience suggests that an overemphasis on same-day access may decrease the emphasis on this clinically important outcome.[11]

There is a lack of rigorous evaluation of advanced access.[11] The examples we have described, drawn retrospectively from busy service providers, also demonstrate a paucity of objective outcome measures. Aside from DNAs and estimates of practice income, the effect of the advanced access was assessed through subjective reports of practice staff; there were no objective data from patients or surrounding practices to better assess impact. The work of the NPCC will provide an opportunity to address this deficit.

We found that two busy rural Australian practices have successfully used some principles of the advanced access model to make sustainable improvements in patient access, with associated improvements in work conditions and patient care. General practices struggling with apparently inexhaustible demand and long waiting times may wish to consider similar changes.

Competing interests

Andrew Knight is chair of the expert reference panel on access for the National Primary Care Collaborative (NPCC). There was no influence exerted by the NPCC on the content of this article or to offer this article for publication.

References

1 Greco M, Sweeney K, Brownlea A, McGovern J. The practice accreditation and improvement survey (PAIS). What patients think. *Aust Fam Physician* 2001; 30: 1096-1100.

2 Consumers' Health Forum. Consumers' expectations of general practice in Australia. Canberra: Consumers' Health Forum, 1999. Available at: http://www.chf.org.au/Docs/Downloads/195_conexpectationGP.pdf (accessed Apr 2005).

3 Murray M, Tantau C. Same-day appointments: exploding the access paradigm. *Fam Pract Manag* 2000; 7: 45-50.

4 Murray M, Berwick DM. Advanced access: reducing waiting and delays in primary care. *JAMA* 2003; 289: 1035-1040.

5 Oldham J. Advanced access. Manchester: National Primary Care Development Team, 2001. Available at: http://www.npdt.org/1626/advanceaccess.pdf (accessed Apr 2005).

6 Murray M. Shortening waiting times: six principles for improved access. Available at: http://www.ihi.org/IHI/Topics/OfficePractices/Access/ (accessed Apr 2005).

7 Murray M, Bodenheimer T, Rittenhouse D, Grumbach K. Improving timely access to primary care: case studies of the advanced access model. *JAMA* 2003; 289: 1042-1046.

8 National Primary Care Development Team. NPDT National Primary Care Collaborative — update bulletin. March 2004. Available at: http://www.npdt.org/15/March%202004%20Update%20Bulletin.pdf (accessed Apr 2005).

9 Murray M. Answers to your questions about same-day scheduling. *Fam Pract Manag* 2005; 12: 59-64.

10 Pickin M, O'Cathain A, Sampson FC, Dixon S. Evaluation of advanced access in the national primary care collaborative. *Br J Gen Pract* 2004; 54: 334-340.

11 Salisbury C. Does advanced access work for patients and practices? *Br J Gen Pract* 2004; 54: 330-331.

12 Windridge K, Tarrant C, Freeman GK, et al. Problems with a 'target' approach to access in primary care: a qualitative study. *Br J Gen Pract* 2004; 54: 364-366.

(Received 12 Apr 2005, accepted 14 Jun 2005) ❑