



## Advanced Access Decreases Wait Times in Primary Healthcare

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Research has shown that a strong primary healthcare system results in better health outcomes and lower costs (Starfield 1994). A key characteristic of a strong primary healthcare system is access to care. Two elements of a strong healthcare system are accessibility and short wait times for service. In Canada, a shortage of primary healthcare providers is the biggest obstacle to reducing wait times to primary healthcare services; however, timely access to one's primary healthcare provider is also a significant barrier (Howell 2008). Wait times to see primary care physicians are longer for Canadians than for patients in the United States, Australia and the United Kingdom (Bundy et al. 2005; College of Family Physicians of Canada 2006; Sanmartin and Ross 2006). Longer wait times are associated with patient dissatisfaction, poorer individual health outcomes and an increased use of emergency departments and urgent care clinics (Gupta and Denton 2008; Hill and Joonas 2005; Hudec et al. 2010; Valenti and Bookhardt-Murray 2004).

Strategies to reduce wait times in primary healthcare are often associated with increased costs to the system. Esmail

(2008) reported that Canada's healthcare system is one of the most expensive in the world, but wait times for care in Canada are among the longest in developed countries. The Primary Care Wait Time Partnership (2008) confirmed that timely access to a regular primary care provider is a significant issue in Canada's healthcare system. Research on the association between public health spending and service access has revealed a decrease in care access despite increased spending (Barua and Esmail 2010). Therefore, efforts targeted at reducing wait times for primary healthcare should be focused on creating greater efficiency and better use of existing system resources (Heale 2011).

The goal of wait times management in primary care is to enable timelier access for all, regardless of their presentation (College of Family Physicians of Canada 2006). Possible solutions to improving access for patients are numerous and include the implementation of models of family practice that offer comprehensive and continuing care with an inter-professional, collaborative approach. These models may include enhanced accessibility to after-hours care, efforts to reduce wait times for diagnostic services and remuneration models that encourage a holistic approach to primary healthcare delivery. This article explores one method of primary care scheduling, advanced access scheduling, that in many settings enhances patient access without increasing costs or adding providers. Traditional scheduling practices are reviewed and critiqued.

Going forward, the benefits of advanced access scheduling are discussed in the context of improved access and patient and provider satisfaction. Pitfalls of its implementation are also outlined. The current status of implementation of the advanced access system in the Canadian context is discussed.

### Traditional Scheduling Methods

In traditional scheduling systems in primary healthcare, the benefits of having a primary care provider are often outweighed by barriers that hamper access to his or her services (Rust et al. 2008). Patients generally cannot get same-day appointments as most providers' days start with a full schedule (Murray and Tantau 1999). While some family practices include both urgent and non-urgent appointment times, additional urgent patients are sometimes "slipped in" to an already-packed schedule (Murray and Tantau 1999). In this system, the day's patients are likely to see an overbooked provider who can be rushed to fit in more cases than the schedule should accommodate. Urgent appointment times are not always held in traditional schedules. Therefore, patients resort to other means, such as walk-in clinics and emergency departments, to have their concerns addressed (Hudec et al. 2010). Furthermore, the traditional booking system is not flexible to respond to seasonal or situational changes in the demand for patient appointments, such as the increased need on Mondays and Fridays or during influenza seasons (Oldham 2001). For this reason, patients needing urgent assessment and treatment are often deflected to walk-in clinics, urgent care centres and emergency departments (Murray and Tantau 1999).

In overbooked systems where urgent slots are available, an appointment "black market" emerges. Providers and clerical staff begin booking non-urgent appointments during the blocked urgent times in an effort to catch up on the previous day's appointment demand. Patients feel the need to fight for appointments and sometimes book unnecessary appointments for a future time in case issues arise (Witt 2006). Finally, clerical staff are required to determine patients' level of urgency to decide where and when to fit them into the schedule (Hudec et al. 2010). Clearly, the primary care provider is the best skilled person to determine the urgency of any patient's condition. Clerical staff become frustrated because much of their time is spent performing triage duties without the appropriate assessment expertise to do so (Ahluwalia 2005).

### Advanced Access Scheduling

Patient centredness and enhanced access to timely (often same-day) appointments are the principles behind the advanced access scheduling approach (Hudec et al. 2010). The model has been endorsed by both the College of Family Physicians of Canada and the Institute for Healthcare Improvement (Cameron et al. 2010). Advanced access does not restrict the

type of visits that can be provided same day. For example, patients can present for such things as physical, Papanicolaou (Pap) smears and other regular health maintenance activities in same-day appointment slots within an advanced access setting. Most importantly, the advanced access scheduling system allows practices to accommodate patients who have potentially urgent problems (Green et al. 2007). The scheduling model rests on the notion that appointment demand is generally predictable and that practices can therefore ensure that appointment supply meets demand (Aiello 2005; Bundy et al. 2005). The advanced access model typically starts by leaving 65% of the available appointments open and the other 35% booked (Murray and Tantau 1999).

Outcome measures related to the evaluation of the advanced access model include calculating the length of time from today to the third next available appointment for each provider; calculating the overall appointment demand per provider by day, month and year; and assessing continuity (how often patients see their main provider) (Witt 2006). Where the third next available appointment is not same day, efforts must be taken to reduce the backlog in order to re-establish availability (Cameron et al. 2010; Institute for Healthcare Improvement n.d.; Witt 2006). Expense per visit is also sometimes measured in fee-for-service environments (Witt 2006).

In seasons where demand becomes unpredictable, the booking system can be adjusted to proactively respond to the change (Witt 2006). Efforts can be taken to increase appointment availability during these times by having a provider resolve some clinical issues by phone, adding appointment slots to the provider's schedule temporarily and moving some pre-scheduled elective appointments to future times (Witt 2006).

**Clerical staff become frustrated because much of their time is spent acting as triage staff members, without the appropriate assessment expertise to do so.**

The advanced access approach focuses on seeing today's patients today; however, the concept of completing today's work today – completing all charting, referrals and administrative work for each patient seen in a day – is also incorporated (Witt 2006). Charting, patient-specific forms and other documentation should be completed daily. In situations where a provider is having difficulty completing these items, time is made in the schedule to allow for these tasks (Aiello 2005; Murray 2005).

When a patient calls to book an appointment, the scheduler automatically offers a same-day appointment, regardless of reason for the visit (Brodeneimer 2003). Patients requiring follow-up are offered a scheduled return appointment; however, patients do

have the option of calling at a later time for a return appointment, and pre-booking is not required (Murray and Tantau 1999).

### **Benefits for Patients**

Some researchers report that the advanced access model increases patient and provider satisfaction (Aiello 2005; Bundy et al. 2005; Hudec et al. 2010) and appears to be related to increased accessibility (Bennett and Baxley 2009; Bergeson and Dean 2006; Bodenheimer 2003). Others report that while advanced access has been associated with increased accessibility to timely appointments, the impact on patient satisfaction with the appointments themselves appears to be unaltered (Belardi et al. 2004).

Advanced access scheduling may result in improved health outcomes for individuals. Patients are seen earlier in the course of their illness, when complex exacerbations or complications may be prevented (Knight et al. 2005). Researchers also report that patients with a regular primary healthcare provider are less likely to visit urgent care centres and emergency departments for minor emergent care (Hudec et al. 2010). Researchers have contended that the advanced access model generally promotes continuity of care in that patients are able to see their primary healthcare provider rather than seeking care elsewhere (Bennett and Baxley 2009; Bergeson and Dean 2006; Bodenheimer 2003; Hudec et al. 2010). However, some reports have associated advanced access with decreased continuity of care, particularly in practices where providers work part time (Haggerty et al. 2008; Knight et al. 2005; Phan and Brown 2009). In some of these cases, it is likely that patients were booked with the first available provider rather than the most frequent or familiar provider – enhancing access while decreasing continuity. To overcome this challenge, some researchers have suggested that practices could move to the team approach, where patients are assigned to a dyad or triad in order to control, to some extent, the lack of continuity with individual part-time providers (Singer and Regenstein 2003). We were unable to locate data focusing on the application of the advanced access system in interdisciplinary practice for the purposes of this review. However, one possible solution to the continuity concern in these groups would be to assign patients to a smaller group of providers and to endeavour to secure timely access with that group.

One Canadian study evaluated the ability of patients with chronic disease to meet their visit frequencies as recommended within clinical practice guidelines (Gladstone and Howard 2011). Some patients did not follow through according to best practice guidelines when left to book their own chronic disease-monitoring appointments (Gladstone and Howard 2011). However, there was no statistically significant change in the number of patient appointments per year overall for those in the chronic disease group (those with diabetes, hypertension or coronary artery disease) (Gladstone and Howard 2011). Meanwhile, there were statistically significant decreases in

the numbers of measurements of blood pressure, glycosylated hemoglobin (HbA1c) and low-density lipoprotein (LDL) cholesterol (Gladstone and Howard 2011). There was also an increase in episodic visits and a decrease in dedicated chronic disease visits (Gladstone and Howard 2011). Finally, blood pressure and HbA1c values did not change significantly from the non-advanced access to the advanced access years, despite the related changes in visit patterns (Gladstone and Howard 2011). Changes in visit patterns associated with advanced access scheduling did not impact patient outcomes in chronic disease.

### **Benefits for Providers**

Use of the advanced access system is associated with increased morale among professionals (Knight et al. 2005). This may be related to the prevention of appointment backlogs and the resulting increase in patient satisfaction. Furthermore, completing today's work today is likely to reduce the stress related to facing a backlog and being behind schedule the majority of the time. Some researchers suggest that completing today's work today enhances productivity and is likely to improve the quality of documentation (Aiello 2005; Murray 2005). Where Canadian primary care providers bill governments for services, enhanced revenues (7% increase) have been reported (Hudec et al. 2010).

There has been less consensus regarding the effect of the advanced access system on "no-show" appointments. Some studies have reported that no-show rates have decreased with the implementation of advanced access scheduling (Belardi et al. 2004; Bundy et al. 2005; Hudec et al. 2010), while others argue that there has been no difference (Bennett and Baxley 2009).

### **Benefits for Clerical Staff**

Advanced access scheduling systems have been shown to benefit clerical staff in a variety of ways. In open access practices where same-day availability is maintained, clerical staff do not have to triage patients. Clerical staff can book all appointments based on patient preference rather than having to assess their condition to determine if they need to be squeezed into an already-booked day (Hudec et al. 2010). The risk of liability related to error is reduced when a professional sees patients to determine the nature and severity of their illness rather than clerical staff attempting to determine urgency over the phone. Knight et al. (2005) also acknowledge that reception staff appreciate not having to explain delays in obtaining appointments and not having to struggle to find available appointments. For some of these reasons, clerical staff have reported that advanced access scheduling has had a positive impact on their quality of work life (Ahluwalia and Offredy 2005). They identify fewer confrontations with patients, fewer patient complaints, better use of time and greater flexibility for contingency planning as contributors to this improvement (Ahluwalia and Offredy 2005).

### Challenges for the Team

In some practices, minimal difficulties were encountered during the implementation of advanced access scheduling (Hudec et al. 2010). However, Gupta and Denton (2008) have suggested that the availability of providers, administrative staff, equipment and examination areas are all essential for successful implementation. Some primary care clinics where providers work less than a 60% full-time equivalent could be challenged to implement advanced access (Murray and Tantau 1999). While access may be enhanced using advanced access, continuity of care could be compromised since different providers could be in the practice setting on any given day. In practices with an already-established panel size (number of patients for whom a provider is responsible), the transition to advanced access scheduling without an increase in clinical staff or a decrease in panel size could be challenging if the panel size produces demand that consistently exceeds availability (Cameron et al. 2010; Green et al. 2007; Murray 2005). In situations where demand exceeds supply, schedulers are faced with the challenge of deciding how to meet the temporary increase (Gupta and Denton 2008). This could involve relying on staff to work extra hours or moving today's demand to the next day's schedule (Gupta and Denton 2008). The risk here is that the overflow snowballs, eventually overtaking more and more days in the near future and shutting down the access system altogether.

It is clear that one of the potential barriers to the successful implementation of advanced access scheduling is the patient-to-provider ratio. Future research could focus on a comparison of advanced access scheduling in various models of primary healthcare based on remuneration strategies, patient roster sizes and relative acuity within individual patient panels.

### Implementation of Advanced Access Scheduling Gaining Momentum

Organizations and governments are realizing the benefits of advanced access scheduling. The Quality Improvement and Innovation Partnership (QIIP) is an organization dedicated to improved quality of primary healthcare in Ontario. A large portion of the work of QIIP is to present advanced access scheduling to its membership (QIIP 2011). Health Quality Ontario has gone a step further in creating a program to facilitate and evaluate the implementation of advanced access scheduling in provincial family practice settings (Health Quality Ontario 2011). The governments of Alberta and British Columbia have provided supports to the primary healthcare sector to promote the use of advanced access scheduling (Canadian Health Services Research Foundation 2010).

Evaluation of the implementation of advanced access scheduling in the Athens District Family Health Team was featured in the 2010 annual report of the Ontario Health Quality Council. The wait time to the third available appointment was reduced

from an average of 27 days to between zero and two days. Patients were seen quicker at their appointments and saw their own healthcare provider more than 85% of the time. Staff time used for telephone triage was significantly reduced. Importantly, the clinic made a special effort toward a change in culture where the patients' time and needs are now paramount.

### Conclusion

Advanced access scheduling offers significant benefits to the patients and the healthcare system. The approach increases patient satisfaction and health status while reducing costs to the system. There may be costs in training staff and coaching healthcare providers in re-organizing patient scheduling during the transition to advanced access; however, this transition does not necessarily require an influx of new capital or human resources expenditures. The resulting decrease in emergency room visits and hospital admissions counters any associated expenses should they occur (Hudec et al. 2010).

The implementation of advanced access scheduling across the primary healthcare sector will require significant co-operation from individual organizations and resources and guidance from professional bodies and government agencies. A system of measurement and evaluation of the model's implementation is needed and, ultimately, governments may be required to create policy to ensure that practices such as advanced access scheduling are used. Nonetheless, the potential benefits are enormous. Healthcare providers and staff would likely be more satisfied, the system costs would decrease, patient satisfaction would increase and health outcomes would improve. **HQ**

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