

Letters to the Editor

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Editor, Letters to the Editor Section

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In Response

Advanced Access Scheduling

To the Editor:

The literature on advanced access scheduling generally assumes that physicians are available on a full-time basis to meet the urgent needs of their patients. The realities of academic practice, where residents and faculty are present only intermittently and have different sets of practice management skills, pose special challenges. Drs Phan and Brown¹ and Drs Bennett and Baxley² are to be commended for implementing ambitious scheduling changes in their academic practices and rigorously investigating their impact. Both studies, however, leave important unanswered questions about their methodologies, and their conclusions therefore cannot be fully interpreted.

Drs Phan and Brown report on implementation of a system in which patients call within 24 hours before a desired visit. If a patient's primary physician is not in session, the patient may either see another physician or call back on a day when the primary care physician will be present. "Pre-booking" more than a day in advance is limited to adult well visits and prenatal visits. This system appears to convert almost all appointments to same-day or

next-day appointments and to virtually prohibit the creation of "good backlog," an important element of advanced access scheduling that supports continuity of care by enabling patients to plan future visits with their own provider.³ Further, the authors do not describe how they handle demand for services that exceeds the available supply of appointments on any given day. Are all physicians able to meet all the demand from their own patients every day? If not, a future call from a patient seeking a same-day appointment with his/her own physician may also lead to frustration, and patients may be subtly deterred from pursuing a visit with their own physician and encouraged to accept an immediate appointment with another physician. This system erects needless barriers to continuity, so it is not surprising that continuity suffers.

Drs Bennett and Baxley report that no-show rates varied from 17.6% to 23.7% in the 15 months after implementation of a "carve-out" appointment system, compared to a range of 20% to 25% in the 12 months before this system was implemented. These ranges suggest a modest decrease in the no-show rate with the new appointment system, but the overall rate for the previous year was not reported, and the change in the overall rate was not tested for statistical significance. These would seem to be the critical

questions in assessing the effect of the schedule change, rather than the results reported, which show the associations of no-show rates with various visit characteristics.

In exploring the reasons for the failure to substantially reduce the no-show rate, Drs Bennett and Baxley omit some important information. First, the appointment system before implementation of the carve-out is not described. What exactly are we comparing the new system to? Second, the authors did not specify whether carved-out appointments were counted as available when they measured the "third-next available appointment for continuity appointments." Ordinarily, appointments carved out for urgent care are omitted from this measure. The authors' statement that "the carve-out variation of advanced access can be directly tied to the decrease in third-next available appointment measurement" suggests that carved-out appointments were included in this measure, artifactually lowering it. There is no reason to expect that a carve-out system would reduce the wait for a scheduled follow-up visit; this can only be achieved by working down the backlog of such visits already in the system. If in fact two thirds of the appointments were still booked in advance, and if the delay to these appointments remained on the order of 30 days, the failure to dramatically reduce

the no-show rate is unsurprising. It should be noted that the study by Belardi et al,⁴ who also failed to reduce their no-show rate after implementing advanced access, is not truly comparable in this regard: in their setting, the baseline no-show rate was under 10%, and it might be difficult for any system to reduce this rate further.

Finally, the authors do not explain how they arrived at the decision to carve out roughly one third of their appointments for urgent care. Advanced access theory suggests that the number of appointments needed for urgent care can best be determined by a careful analysis of demand patterns. In many settings, urgent care makes up at least half of patient demand for services. Belardi et al used a 50% carve-out for urgent care in their control group and reserved 75% of their capacity for urgent care in their experimental group. Bennett and Baxley may have reserved too little capacity for urgent care to significantly impact the no-show rate.

Academic family physicians are seeking to transform our practices into Patient-centered Medical Homes both to improve service to our patients and to provide appropriate settings to train the family physicians of tomorrow. Adapting advanced access scheduling techniques to the world of residency training is a complex problem requiring complex solutions. Carve-out solutions are a start, but we must also tackle the harder challenges of working down backlogged demand for continuity follow-up visits and then keeping that backlog low. There are many unanswered questions, such as: How can teams best be designed to mitigate the discontinuity inherent in resident and faculty schedules? Is team continuity a meaningful concept for patients? How can residents schedule extra sessions for backlog reduction in the context of their busy rotation schedules? What provisions need to be made

to protect continuity access for the patients of faculty physicians with frequent absences due to conferences, inpatient teaching, and other outside responsibilities?

It is too soon to conclude that advanced access cannot be made to work in the teaching environment. We need not only innovative approaches but exhaustive reporting and thorough analysis of all relevant data to draw correct conclusions.

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3. Murray M, Berwick DM. Advanced access: reducing waiting and delays in primary care. *JAMA* 2003;289:1035-40.
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In Reply:

We thank Drs Soloway and Swartz for their interest in our study.¹ We agree that there are many challenges in balancing accessibility and continuity in a residency practice. In our open access system, which we have used successfully in our academic practice since 2003, we have the option to pre-book 20%–30% of our appointments. While each physician is not always able to “meet the demand from their own patients every day” and this may indeed lead to frustration at times, we observe that such imbalances of supply and demand are usually temporary (and not unique to open access scheduling). Our system allows the patient “to balance the value of continuity of care against the competing value

of immediate access”² when his/her physician is not immediately available.

We seek to continuously improve our system. With interventions such as increasing clinic time for interns and a vigorous team structure, we have increased continuity back to “pre-open access” levels. We assure that patients desiring immediate access are seen by a physician within a small practice team if their own physician is not available.

Our study emphasizes the importance of preserving continuity while implementing open access scheduling. There is much to be gained from allowing patients immediate access to primary care offices, and we welcome further study on the relationship between accessibility and continuity.

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In Reply:

We appreciate the comments of Drs Soloway and Swartz, as they point out several areas of clarification necessary to fully understand our work. We previously maintained a traditional appointment scheduling system that consisted entirely of pre-booked appointments without any reserved for same-day access. The study analyzed implementation of a carve-out model that allocated approximately 30% of the appointment slots for same-day (or advanced access) appointments. We selected one third of appointments to carve out for same-day access based on demand data collected prior to implementation. We have continued this degree of carve

out, as we have determined that it provides the right balance of pre-scheduled versus scheduled same-day appointments for our patient population.

Contrary to the depiction of Drs Soloway and Swartz, these appointments are not carved out for urgent care only. A central principle of advanced access is that patients can schedule an appointment with the physician of their choice at the time of their choice, regardless of reason for the visit. Some of our same-day access appointments are for patients seeking well-women visits, preventive care, etc. A primary goal we had in this process was to eliminate scheduling rules and to stop making the patient prove that they were “sick enough” to get in, ie, needing an urgent appointment.

As part of this transition, we monitored access via the third-next available appointment measure in two ways—by counting all appointments (pre-scheduled plus the carved-out same-day appointments) and by pre-scheduled appointments only. We chose the all-inclusive measure because we felt it fully reflected the goals of moving toward an open access model of availability; that is, from the patient’s perspective, there are more appointments open to them at a given time. Regardless, both measures decreased significantly during the study period.

In addition, Drs Soloway and Swartz make an assumption that is not implied by our study and, in fact, is repudiated by our data (though we chose not to present it at that level of detail). Specifically,

the wait for a prescheduled appointment did in fact decrease significantly after the implementation of the new appointment system, from an average of 14 days to a low of 6 days. Clearly, this measure, combined with the more dramatically reduced third-next available appointment measure, indicate an increase in access, from the perspective of the patient.

Given these conditions, we were surprised to note the temporal changes in the no-show percentages over the study period. As stated in the manuscript, before implementation, the no-show rate ranged from 20%–25%. During implementation, the no-show rates did change significantly but not as we expected. The first 8 months of implementation saw no-show rates decline (ranging from 17.6% to 20.8%), while the second half of the study period saw no-show rates return to pre-access levels, ranging from 19.3% to 23.7%.

With the implementation of this carve-out adaptation of the advanced access model, we anticipated an increase in appointment availability, from the patient’s perspective, coupled with a reduction in the no-show rate. While we realized the goal of improved access, the lack of movement on the no-show rate was puzzling. Drs Soloway and Swartz may be correct in the hypothesis that not enough slots were moved from prescheduled to same-day status, but we would argue that the impact would be for the opposite reasons. Multivariate modeling indicates that the difference between when

an appointment is scheduled and the appointment time itself is a significant factor in no-show behavior; in other words, the greater this difference, the more likely a person is to no show. For this type of model to reduce no-show rates, more of the pre-schedule appointments need to be shifted to the advanced access slots; this would reduce the wait for an appointment and theoretically reduce no-show behavior. This is why we argue that the third-next available appointment measure may not be the best measure of appointment access in this type of setup; rather, other measures such as wait for an appointment, continuity, and follow-up appointment intervals may be more appropriate.

Our experience with this type of model is not that advanced access scheduling does not work in more complex teaching practices—rather, that modified systems need to be carefully planned, monitored, and studied in different ways than full implementation of advanced access, in which few or no appointments are pre-scheduled. Our experience indicates an improvement in patient appointment access, just not a concurrent improvement in no-show rates; further refinements of our modified scheduling system—specifically, limiting time from appointment scheduling to appointment to less than 14 days—should bring this no-show rate down further.

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