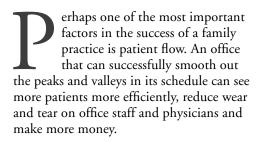
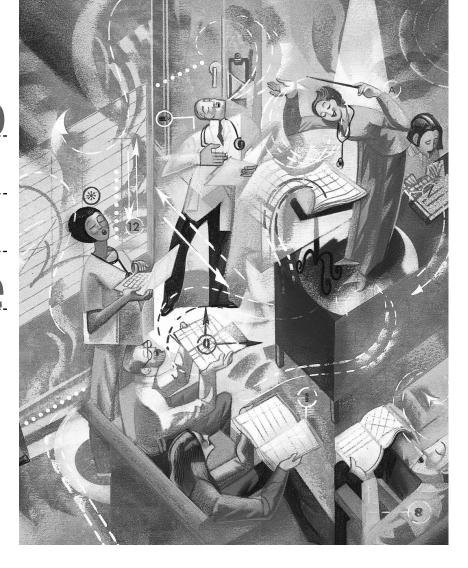
These scheduling tips can help you smooth out the peaks and valleys in your patient flow and increase your bottom line.

M. Kyu Chung, MD



# **KEY POINTS**

- The first step to improving patient scheduling in your practice is identifying where the peaks and valleys in your schedule occur.
- One way to smooth scheduling peaks is by using the modified-wave method.
- The key to modified-wave scheduling is to doublebook patients for the first slot of each hour, leaving the end of the hour open so there's time to catch up if the physician begins to run behind schedule.



Although much recent attention has been given to open-access scheduling, there are other, more moderate changes you can make in your scheduling that can yield significant results. You can begin by identifying where in your schedule peaks and valleys tend to occur. Several causes of peaks and valleys and strategies for dealing with them are described in boxes that appear throughout this article.

To address peaks and valleys in my practice's schedule, I adopted "modified-wave

scheduling," a simple technique where patients are purposely double-booked at the front end of each hour and the end of the hour is left open for catch-up. I've used this system with much success for 19 years. It

has increased my bottom line by almost 15 percent without increasing my overhead. Here's how it works.

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Modified-wave scheduling has increased my bottom line by almost 15 percent without increasing my overhead.

#### **SPEEDBAR®**



Making moderate changes to your scheduling can yield significant results.



The author adopted the modified-wave method of scheduling patient appointments and increased the capacity and efficiency of his practice.



With modified-wave scheduling, patients are double-booked at the front end of each hour and the last appointment of the hour is left open for catch-up.



Another way to improve your scheduling is to identify your practice's high and low seasons and perform routine, comprehensive patient visits during your low season.

### **Doing the wave**

I first encountered wave scheduling in the early 1980s when I was doing a rotation in pediatric cardiology. Patients traveled from throughout the region to the clinic where I worked, and they were all told to come at 1 p.m. Once there, they were told they'd be seen on a "first-come, first-served" basis.

This was how original "wave" scheduling worked. Loading the patients at the front end of the day optimized the efficiency of the staff by guaranteeing there was never a lull in patient flow. While it was good for

productivity, it was unpopular with patients. Some had to wait several hours to be seen, despite having arrived on time for their appointments.

catch up.

The "modified-wave" method takes advantage of the principal behind the "wave" method, but it is more patient friendly. The key to the modified-wave technique is to load up the front end of each hour and leave open slots in the schedule later on to catch up. Perhaps the best way to understand the

modified-wave technique is by comparing it to the standard method of scheduling [See the box on the next page].

### **Advantages**

The key to the modified-wave

technique is to load up the front

end of each hour and leave open

slots in the schedule later on to

Using the modified-wave technique helps prevent long patient wait times by giving physicians free time at the end of each hour

> to catch up if they've begun to run behind. In my experience, patients rarely complain when they have to wait from 15 to 25 minutes to see the doctor. It's when the wait exceeds

the 25-minute mark that patients start to get upset and satisfaction begins to suffer. With modified-wave scheduling, if a physician begins to run late, the effect isn't cumulative: There is time built into the schedule at the end of the hour to catch up.

Another plus of modified-wave scheduling is that because the first appointment of the hour is double-booked, the physician – aware that the next patient is either already waiting or is in the process of being put in

# SEASONAL VARIATION

The geographic area where you practice will have a high and low season uniquely its own. One way to help smooth scheduling peaks is to encourage all patients with chronic diseases to have their comprehensive evaluations performed during your low season. How many times have you encountered a patient with complex, non-urgent problems scheduled into a 15-minute slot on a Monday during flu season? While these types of visits can't always be avoided, they can be minimized. We've found that once we schedule our patients with chronic conditions to come in for routine exams during low season, they stick to that schedule. Another way to move visits of this type to the less busy time of year is to adjust the number of refills you prescribe so that patients' refill requests coincide with your less busy months.

In addition to smoothing out your workload, scheduling comprehensive, non-urgent evaluations during low season allows you more time during the visit to discuss health maintenance issues and clean up the patient's medication list, problem list and the overall chart. There's also more time to ensure that your documentation and coding support the high level of care you provided. And, with a clear and organized chart, acute visits during the busy months can be handled much more efficiently.

An unanticipated benefit of scheduling complete evaluations well in advance is that patients arrive expecting a longer visit and don't seem to mind paying more for it. Early in my practice years, I recall several patients with whom I had spent twice the normal amount of time bitterly complaining that I had charged more than my usual rate. It didn't take me long to learn that when patients make an appointment for a "regular office visit" they expect a "regular office charge." Scheduling comprehensive visits well in advance seems to increase patients' satisfaction that they're getting what they (or their insurance plan) pay for. Also, in our practice, where the low season is summer, many patients have already met their deductibles by the time they see us for these more expensive office visits.

# STANDARD SCHEDULING VS. MODIFIED-WAVE SCHEDULING

**E**ach of the following case examples is based on the mix of patient visits a family physician might encounter on an average morning.

## Standard scheduling method

In this scenario, patient appointments are booked in 15-minute increments.

Number of patients seen: 10.

Number of patients who waited: 4 (2 waited for 25 minutes and 2 waited for 15 minutes).

**Minutes "wasted" by the doctor: 35 minutes** (20 minutes waiting for the next scheduled patients and 15 minutes for the no-show).

| Time      | Patient | Visit length<br>(minutes) | Analysis  |
|-----------|---------|---------------------------|---|
| 9:00 a.m. | Α       | 7                         | 8 minutes of physician/<br>staff time wasted                      |
| 9:15      | В       | 8                         | 7 minutes wasted  |
| 9:30      | C       | 15                        |   |
| 9:45      | D       | 10                        | 5 minutes wasted  |
| 10:00     | Е       | 20                        |   |
| 10:15     | F       | no-show                   | 15 minutes wasted   |
| 10:30     | G       | 30                        | Visit took an additional 15 minutes                               |
| 10:45     | Н       | 25                        | Patient waited 15 minutes<br>but took an additional 10<br>minutes |
| 11:00     | ı       | 15                        | Patient waited 25 minutes   |
| 11:15     | J       | 5                         | Patient waited 25 minutes but only took 5 minutes                 |
| 11:30     | K       | 15                        | Patient waited 15 minutes and is finished at 12:00 p.m.           |



### Modified-wave scheduling method

Again, patients are scheduled in 15-minute increments, but two patients are booked for the first time slot of each hour. A "catch-up" period is built into the schedule at 9:45 a.m., 10:45 a.m. and 11:45 a.m. During this time, no appointments are scheduled. In this scenario, more patients had to wait, but in my experience, patients rarely complain when they have to wait up to 25 minutes to see the doctor.

Number of patients seen: 12.

Number of patients who waited: 9 (one waited for 25 minutes and 8 waited for 15 minutes or less).

Minutes "wasted" by the doctor: 0.

| Time  | Patient                  | Visit length    | Analysis   |
|-------|--------------------------|-----------------|--|
| 9:00  | A                        | 7               | No time wasted   |
| 9:00  | В                        | 8               | Patient waited 7 minutes                                     |
| 9:15  | С                        | 15              | Patient did not have to wait                                 |
| 9:15  | D                        | 10              | Patient waited 15 minutes                                    |
| 9:30  | Е                        | 20              | Patient waited 10 minutes                                    |
| 9:45  | No appointment scheduled |                 |  |
| 10:00 | Fn                       | o-show          |  |
| 10:00 | G                        | 30              | Patient did not have to wait                                 |
| 10:15 | Н                        | 25              | Patient waited 15 minutes                                    |
| 10:30 | I                        | 15              | Patient waited 25 minutes and is actually seen at 10:55 a.m. |
| 10:45 | No appointment scheduled |                 |  |
| 11:00 | J                        | 5               | Patient waited 10 minutes and is actually seen at 11:10 a.m. |
| 11:00 | K                        | 15              | Patient waited 15 minutes                                    |
| 11:15 | L                        | 13              | Patient waited 15 minutes                                    |
| 11:30 | М                        | 17              | Patient waited 13 minutes and is finished at 12:00 p.m.      |
| 11:45 | No ap                    | ppointment sche | eduled   |

#### **SPEEDBAR®**



One benefit of modified-wave scheduling is that there is time built into the schedule for the physician to catchup if he or she begins to fall behind.



This keeps the doctor from falling further behind as the day progresses and prevents patients from spending a long time in the waiting room.



Also, because the first appointment of the hour is double-booked, the physician is aware of another patient waiting and tends to use time more wisely.



To avoid rushing through a visit involving complex problems, physicians can borrow time from the end of the hour or from less complex visits.

# **VACATIONS**

Every physician has experienced being swamped several days before and several days after a vacation. Reducing the number of routine follow-up appointments before and after a vacation can help prevent this. The key is tapering. Several weeks before your vacation, have your receptionist block out progressively larger and larger portions of your schedule for the several days preceding your vacation. Do the reverse (i.e., block out progressively decreasing portions) for the few days following the vacation. The receptionist should be instructed not to schedule any routine appointments during those blocked-out periods. Then, perhaps one week prior to the vacation, open up the schedule so that when patients call with semi-urgent needs, they can be easily accommodated.

In a group practice, it is often just as important to block out some slots on the other physicians' schedules during the week(s) a physician is on vacation. Frequently, it is the remaining partner(s) who gets the brunt of the patient overflow. These appointment slots should be blocked out well in advance and should be reserved for same-day appointments.

After each vacation, the physician, the office manager and the person scheduling patient appointments can evaluate how well they did in predicting the patient flow. Depending on what they decide, more or fewer appointment slots can be blocked before and after the next vacation.

an exam room – tends to use time more wisely. And patients who need more attention do not end up getting rushed through. Why? The modified-wave schedule allows physicians to borrow the unscheduled time from the end of the hour or from patients

with less complex problems without having to rush to get back on schedule.

Finally, by stacking patients at the beginning of an hour or session, you ensure that physician and staff time isn't wasted if one of the two patients booked at the top of the hour is a no-show.

### Fine-tuning the schedule

To get even more out of modified-wave scheduling, you can group similar types of office visits in a single session. Some practices have surgical-procedure days, complete-physical days or all-pediatric days. For example, consider setting aside one midweek morning office session for physicals. If an average physical takes 25 to 30 minutes, two physicals can be scheduled at 9 a.m. and one at 9:30 a.m. The physician sees one of the patients at 9 a.m. while the second patient has testing done by the ancillary staff. Then, 20 minutes later, the patients can switch, and

the first patient can have testing done while the second patient sees the physician. This way, both patients with 9 a.m. appointments have the perception that they've been seen immediately. The entire office gets into a groove, and you end up seeing more patients.

# **INTRAWEEK HIGHS AND LOWS**

Many practices find that Mondays, and sometimes Fridays, are too busy. For example, at one of our practice sites, the office manager and the receptionist were pulling their hair out trying to handle upset patients who couldn't be fit into one physician's Monday schedule. These patients had waited since Saturday to see their own doctor on Monday, only to find they'd have to wait another day or two. Their anger was understandable. Furthermore, it took extra staff time to cajole patients into waiting another day or two for an appointment.

In this practice, the solution was simple. On Mondays, they allowed only two patients to be scheduled in advance for the first two morning appointment slots. That way, the doctor would be assured of starting on time. The rest of the schedule was filled as the calls came in on Monday. By the time the first two scheduled morning appointments had been completed, patients who had been added to the schedule that morning were already arriving at the office. The difference in patient and staff satisfaction was remarkable. Ill patients were told to come in almost immediately. There were also fewer phone calls to confirm patient appointments and less time spent on the phone on Mondays to triage patients away from an already full schedule.

Your practice may not need to block out such a large amount of time on Mondays, but you can use the same principles to help you determine the number of slots you'll need.

There is one valuable strategy that can make a huge difference in smoothing patient flow regardless of the scheduling method you use: Review the schedule several days prior to the appointment day. My medical assistant and I do this together prior to re-confirming appointments. That way, we can fix any odd glitches in the schedule by asking certain patients to come earlier or later in the day or even on another day, if necessary.

Why do I assign this task to my medical

**Experience has taught me that** 

the scheduler is often too busy

to put a lot of thought into how

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assistant and not the receptionist or scheduler? Experience has taught me that the scheduler is often too busy to put a lot of

taught me that the scheduler is often too busy to put a lot of thought into how patients are scheduled. The medical assistant

is generally the one who is most accustomed to the work style of the doctor(s) as well as to the idiosyncrasies of the patients, and, consequently, is better equipped to mix and match patients so that each hour is balanced. A final adjustment to the schedule prior to the appointment day can correct the mistakes before they become a reality that both the staff and the patients have to deal with.

## Pitfalls to avoid

Over the years, I've helped many practices implement modified-wave scheduling. I would be remiss not to mention having encountered a few problems along the way. Here are some past mistakes I've seen and what your practice can do to avoid them:

**Pitfall 1:** Filling the catch-up time slots with acute visits. Avoid this at all costs. Physi-

### **FPM ARTICLES ON SCHEDULING**

"Same-Day Appointments: Exploding the Access Paradigm." Murray M, Tantau C. September 2000: 45-50. Available at: www.aafp.org/fpm/20000900/ 45same.html.

"Reducing Delays and Waiting Times With Open-Office Scheduling." Herriott S. April 1999:38-43. Available at: www.aafp.org/fpm/990400fm/38.html.

"Is Your Schedule Out of Control?" Shenkel R. September 1995:66-67.

"A Checklist for Scheduling Success." Matthies F. January 1995:68-71.

cians who are double-booked at the front end of the hour and then have no unscheduled time at the end of the hour to catch up will fall markedly behind in no time flat.

**Pitfall 2:** Double-booking new patients, difficult patients or patients with complicated problems at the front of the hour. For example, if two new patients are scheduled at 9 a.m., the schedule can quickly turn into a mess. Don't book these patients during peak time periods whenever possible, and try

to ensure that their visits are mixed with others that are likely to take less time. If the patient asks, simply explain that 9 a.m. is a high-traffic time in the office and does not give

the doctor sufficient time to spend with the patient.

**Pitfall 3:** Implementing modified-wave scheduling in a large practice (20+ physicians) with centralized scheduling. Practices with centralized scheduling can have terrible scheduling problems and have greater difficulty implementing this method. The only way that I've found to make modified-wave scheduling work in a practice with centralized scheduling is to limit a specific scheduler to a specific set of doctors, conduct frequent feedback sessions and commit to modifying the schedule on the fly. I generally discourage centralized scheduling altogether and encourage decentralized scheduling at the primary care office site. This way other issues such as billing matters can be dealt with at the time patients schedule appointments.

### The bottom line

Successfully managing patient flow takes thought and careful planning. It is by far one of the most challenging aspects of practice management. But when done correctly, smoothing the peaks and valleys in your schedule using the modified-wave technique will increase the capacity and efficiency of your practice without increasing your overhead. Add to that staff and physicians who are less stressed and patients who aren't enduring lengthy waits to be seen and you've got a better practice all around.

Send comments to fpmedit@aafp.org.

### **SPEEDBAR®**



To get even more out of modified-wave scheduling or any other scheduling technique, group similar types of office visits in a single session (e.g., "physical day").



The entire office gets into the groove and is often able to see more patients.



One valuable strategy that can make a difference in any scheduling technique is to review the schedule several days prior to appointment day.



The author does this with his medical assistant, who is most accustomed to the work style of the physician(s) and the idiosyncrasies of the patients.