Chapter Five: Process Mapping and Work Flow Enhancement

Before you start this chapter, I'd like to suggest that you have a blank notebook or legal pad handy, because there will be times when you'll want to stop, but this book down, think about work flow in your practice, do some diagramming and write down a few notes to try. Label this notebook "Our Practice Laboratory Notebook," and after you've read this chapter, keep the notebook handy at the nurse's station. If you have multiple doctors and multiple clinic pods, start one notebook for each doctor.

I'd like everyone in the practice to feel free writing in this notebook, a little bit every day. Date and sign every entry. Here's what you'll be entering—just as you would in any formal lab notebook:

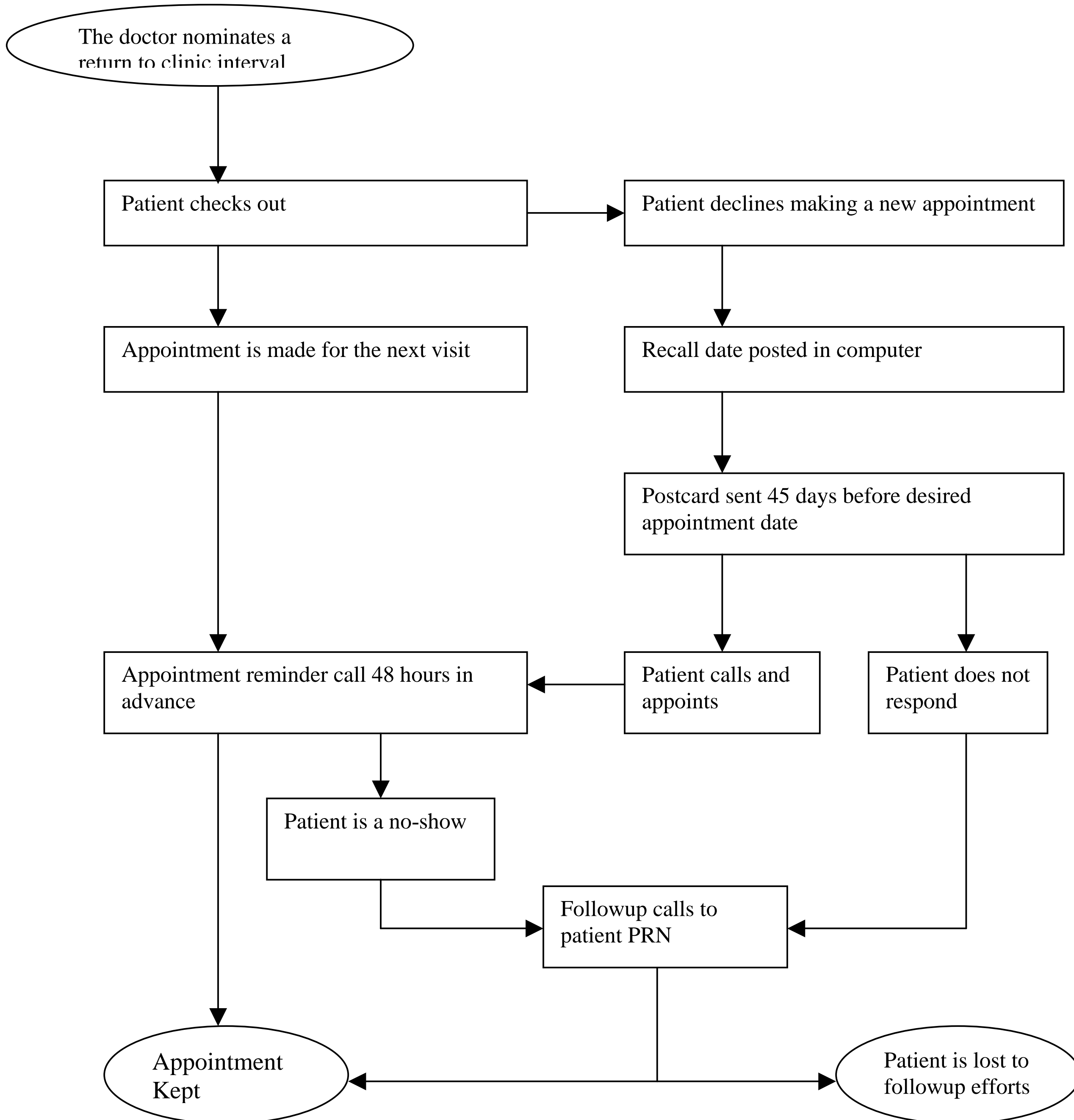
- Note observations about the kinds of patients that keep things running smoothly, and the types of encounters that make things bog down.
- Write down when the first patient appointment started, when the first patient was ready to be seen by the doctor, and when the doctor arrived on the floor ready to see patients. (Time lags here are among the most common reason for clinics running behind.)
- Note any positive breakthroughs or frustrations you have with equipment, the doctor, staff, and methods employed.
- Be especially careful to note what's working right, not just what's broken.
- If you work in various locations, carry your lab book with you and jot down notes about the facility you're using that session.
- Don't be afraid of applying a little math, measuring the various ratios of rooms and techs and patients as you learned to do in Chapters Three and Four.
- After reflecting on a day's clinic, jot down any idea you have for an experiment to try during the next clinic (for example, you may decide to take all the drug samples, now being stored centrally, and distribute these in each lane to save steps during clinic.)
- Be sure to feel free writing down what's in it for everyone if you can indeed become more efficient and productive. Examples include:

--Patients will be happier because waiting time will go down
--Staff morale will go up, because they no longer feel helpless in the face of a clinic that runs late, generating unhappy patients and forcing staff to arrive home late.
--Overtime costs will decrease, if patients aren't always running over.
--Staff turnover will decrease as morale increases.
--Practice income will go up, yielding more money to pay for facilities, equipment and staff raises
--Doctors will have a renewed sense of control over their practice's destiny

* * *

To go along with your new lab book, let's now roll up our sleeves on a helpful concept and tool that is surprisingly new to ophthalmology, but well established in other business sectors: "process mapping" or flowcharting. This tool can be as formal or informal as you desire. Below is a very simple example, covering the steps and flow of how a patient's next visit to the clinic is handled. As you look at the relative complexity of this one, basic element of your practice, you can just imagine how many years and how many pages it would take for someone to minutely dissect all the logical branches and nodes of the typical clinic. *THAT'S* why an ophthalmology practice is so tough to manage…there are thousands of moving parts, most of which have to be moved along by imperfect, under-trained, over-stressed staff. All the same, it's useful, even in the face of daunting

complexity, to tackle your practice one small sector at a time and induce constant small improvements. That's what flowcharting can do for you.



As you can see from this simple diagram, there is an input (the doctor's return to clinic order), there is an output (the doctor's order is either kept or the patient is loss), and a whole lot of steps in between to bridge the two.

You can think of this process mapping at a lot of levels. *Grossly*, and over long time frames, consider the input of a young person's desire to pursue a 35-year career in medicine and the

output, a 65-year-old retiree with the legacy of a rewarding practice and a full-funded pension. In between, there have been millions of steps. *Minutely*, there can be scores of logical, branching steps in the process of determining a single patient's proper glasses prescription. Given your training and repetition, and the rote training of your staff, you're all quite accustomed to doing much of this unconsciously—which is a real handicap.

That's because you have all served patients thousands of times in the very same way, you're no longer entirely mindful of the steps you take to complete an exam or perform a surgery. Process improvement requires that you either step, figuratively speaking, outside of yourself, and observe yourself serving a patient, or that you let someone observe you and record what they see—either in written notes, an audio records, or best, with a video recorder.

Here are examples of what you might see when you or someone else looks closely:

- The doctor doesn't trust a staff member to take an accurate intraocular pressure…so he repeats tonometry readings dozens of times a day, instead of simply setting aside 45 minutes for a comprehensive staff inservice. This costs the doctor about 45 hours of lost time a year.
- The doctor, out of habit, performs his own confrontation fields, rather than delegating this simple task to the technician.
- The techs and doctors collectively spend at least 30 minutes a week handing plastic occluders back and forth with patients, and risking cross-infection, when virtually every patient owns two perfectly good occluders: their cupped hands.
- Frail, elderly patients are moved from station to station within a practice, rather than keeping movement to a minimum.
- The clinic has three exam rooms that are over-burdened, and a large, dedicated minor procedure room that is only used for a case or two a week…when it could be turned in to a 4th lane.
- Many patients who don't really need it are dilated anyway out of habit.
- The practice has dedicated techs and dedicated scribes…but these staff are not cross-trained. So when a scribe is out sick, the doctor is slowed down by having to see patients alone.
- Patients in wheelchairs are forced to transfer to exam chairs and back again, risking sore backs for staff and slowing down flow, when a wheelchair room would prevent both.
- The doctor who never addresses the patient's chief complaint during the whole exam, and who then has to stay in the room an extra eight minutes to address whatever it was the patient actually came in for.
- The doctor who loves airplanes and gets trapped in room four with the airline pilot.
- The first patient appointment for the day is 8:15am. But the staff don't work up this first patient until 8:45am, because they know that on most mornings the doctor doesn't arrive until 9:20am, to a pod of five blinking lights and five foot-tapping patients. The rest of the morning runs behind.
- The doctor has good energy and sees patients at a fast pace in the morning. In the afternoon, he *s-l-o-w-s w-a-y d-o-w-n* after returning from a free 2000-calorie lunch in the doctor's lounge. Those free lunches force the staff to book three fewer patients in the afternoon, and cost about $75,000 a year. Bon appetite! **(note to editor: please check French spelling of 'appetite' in this context.)**
- The front desk doesn't make up charts on new patients in advance or register patients over the phone; so when the morning starts with a cluster of fresh patients, there's a 20-minute delay before the clinic can get started.
- The doctor enters the operatory before the patient has been draped and prepped, and thus has to cool his heels waiting for his turn to get to work.

- There are only three jewelers forceps in a five-lane exam suite, so there's a 40% chance the doctor will have to go hunt down this instrument.
- There is no paddle or light system on exam rooms, so techs aren't really sure where the doctor or their colleagues are…they have to put their ear up to a closed door to find out where people are.
- Three out of five techs can work up a new, routine, non-wheelchair patient in about 15 minutes. The other two techs routinely take 30 minutes. All techs are smart and well-trained. The difference? The two slow techs have discovered that no one really checks how many patients they work up in a day, and it's a lot more relaxing to amble through one chatty 30 minute work-up than to zoom through two efficient ones.
- After his last patient encounter in room two, the doctor has to walk down the hall to the nurses station to pick up his next patient's chart, then walk back up the hall to room three…instead of simply going to the chart that's racked up at the entrance of room three.
- About every fourth patient, the doctor forgets to complete the superbill, which is overlooked by the escorting scribe. Such patients land at the front desk…where the junior clerk has to either sift through the chart and guess what was done that visit, or disturb the doctor who is now with his next patient.
- The doctor dictates 15 charts at the end of a long day, rather than dictating real-time in front of the patient. He adds frustration and an extra 30 minutes to every work day because he needs to get re-oriented to each patient's case for a second time, and he's dictating when his energy is at low ebb. This all adds up to nearly 100 extra, inefficient hours a year.

Each of these, and hundreds more, are examples of the inefficiencies I've seen first hand around the country, and I'm certainly missing a lot, because I'm neither a technician, nor a physician. I just watch for the obvious gaps that any sixth-grader would spot. For all their intelligence, ophthalmologists and their staff are often too close to see these opportunities for improvement…you've become the *process* which makes it hard to revert back to being the *observer*. You can break through this with just a few simple lab experiments.

1. Schedule a practice "stress test." Just as we learn about the health status of cardiac patients by putting them on a treadmill with electrodes to measure heart function, we can learn a lot about your clinic by "exercising" the team, and seeing what breaks down first. If you ordinarily see 20 patients in a half day, schedule 25 or 30…you may actually surprise everyone on the clinic team and learn that you can move more patients through in a day than you thought.

2. Doctors: Observe each of your techs in action. At the start of a clinic session, when you don't yet have a patient worked up to see, observe an entire teach work-up. This will make your staff extremely nervous the first couple of times you do it, but will yield tremendous insights. Discuss your findings gently and generically with the group.

3. Techs: Stop working long enough to see the big picture. Book alternating techs off the floor on successive clinic mornings. Hand them a clipboard, and have them shadow the doctor. Write down everything they see that could be improved:

- Patient communication
- Patient movement
- Balance between social and professional time between doctor and patient
- Doctor's corrective efforts with staff
- How the reception desk staff and techs team up to help patient flow

4. As a doctor/tech group exercise, diagram the chain of service, and each of the "service points" in your practice…simplified, this may look like:

Then ask yourselves: How many patients an hour can the doctor see? The tech team? Check in and check out? To the greatest possible extent, and for the greatest efficiency, it's obvious that you want to match the throughput capacity of each of these service points. It's wasteful if the front desk clerk can transit 15 incoming customers an hour, but the solo doctor can only see six patients in the same amount of time. And you're going to lose a lot of sales if at peak your optician can only serve four patients an hour, but the clinic is sending eight glasses prescriptions down the hall to her every hour. Another way of looking at this is to ask, "At what percentage of our peak capacity are we running today in each of these (and other) service points?" If the doctors are running at 110% of their maximum personal capacity, it's time to either get more efficient, start looking for another provider, or slow down the input of patients before the system breaks down.

5. Select one input/output routines within the practice, something that you're concerned is not running smoothly right now. This might be the hand-off from clinic to optical, or the routine followed to schedule a patient for surgery. Using as a guide the charted example above of how the patient's next appointment is scheduled, create a flow chart for your selected routine. Do this either as a group exercise on a flip chart, or on your own as the administrator, head tech or practice owner. Write it in the notebook you've started. The process of doing this will likely point out redundancies, repeated work, or steps than can be omitted to save time, reduce costs and make the visit more pleasant for the patient.

6. As a group, or as an individual owner, examine the following list of drivers and potential choke points in the practice, and check off the corresponding box…is each item your practice's strength or weakness?. What you check off, in turn, will suggest routines or sub-routines in the practice that should not only be broken down into a flowchart, but worked to find improvements.

Patient Flow Drivers and Potential Choke Points in the Your Practice	**We Are Weak at This**	**We Are Strong at This**
Marketing (internal and external) to secure control over sources of patients for us to serve		
The scheduling template as it has been conceived and set up		
The way the template is actually used day-to-day		
Recall and continuity of care work at all levels (the doctor's appropriate nomination of a return to clinic interval, the clerical work to enter this order accurately, recall cards, followup with non-responders to recall cards)		
Appointment reminder calls		
Action taken with no-shows		

Patient registration and clarity of pre-appointment instructions		
Pre-test area bottlenecks		
Automated pre-test and diagnostics equipment		
The state of technology adoption in the practice overall		
The right number of techs and scribes		
Tech training level and their degree of cross training		
Agreement among the doctors on one best way for all technician protocols		
Agreement among the doctors of how many techs are required to see a given patient volume		
Tech schedule and assignment within the clinic; their allocation pro-rata to each doctor's needs		
The accommodation of each doctor's unique patient mix and subspecialty interests		
Doctor arrival time in the office in the morning and afternoon		
The doctors' proper management of competing duties and interests (hospital consults, outside meetings, sales calls)		
Doctor discipline to stay on the floor and not get distracted by calls or other duties		
Doctor energy levels (both the innate energy level and higher levels that can be reached with effort)		
Doctor intelligence and mental trajectory (straight line or wandering? Note: I.Q. often correlates with clinical speed)		
Tech work-up tempo (are there objective standards in place for this?)		
Good teamwork between work-up tech and doctor, so that the history and pre-testing does not have to be repeated		
Appropriate delegation of care to techs so that patients can be single-passed rather than seen by the doctor twice		
Proper balance between having the exam be overly deep or shallow (eg: avoiding dilation when appropriate)		
Proper balance between having too much and too little social exchange with the patient		
Intra-exam tempo and efficiency of the doctor or doctor-scribe team (are there objective standards in place for this?)		
Efficient and accurate transfer of information from the doctor's brain to the patient's chart		
Ability of the doctor to adroitly hand-off excessive questions and escape the exam room		
Transition of the patient through optical and checkout, and on to any consulting providers, if required		

Remember: There is no magic wand and no genie in a bottle waiting to grant you wishes. Be patient with yourself and with your staff. It has taken many years for you to arrive at this point in your career, and to see patients the way you did last week in your clinic. Take it on faith that you've fallen into a few bad habits and that at least 10% of what you're doing could be improved, made faster, or made more profitable. Then take things one small step at a time to improve.

* * *

Note: For an extremely lucid and accessible review of flowcharts and the analysis of processes in your practice, you may enjoy reading the text Business Process Mapping, by Mike Jacka and Paulette Keller (John Wiley & Sons, Inc., 2002)

# # #