

Highland Hospital: An Exercise in Negotiations

Highland Hospital is a large, 500-bed hospital in the Midwest with 20 operating rooms. The operating room suite is Highland's economic engine. By some estimates, when one counts tests and pre- and post-procedure stays, 80 percent of revenues can be traced to surgical procedures. The operating room (OR) suite operates Monday through Friday from 8 am to 4 pm. An average of 60 procedures are performed each day—three procedures per day per room. This, however, is not enough to keep up with demand, and the current wait for a patient to get scheduled averages 25 business days, or five weeks. This concerns the administration greatly because some competitors can get patients into the OR for some very profitable procedures within two weeks.

For a variety of reasons, opening on weekends is not currently feasible. However, extending the day during the week, even to as long as 15 hours per day (8 a.m. to 11 p.m.), can be accomplished with some shift reshuffles and at some additional cost.

Procedures are scheduled into the OR as follows: Surgeons have "block time," which is their allocated time in the OR. To keep things simple, suppose Dr. Smith is guaranteed a room every Wednesday to operate all day. On other days of the week, Dr. Smith may consult with patients in his clinic; and if the patient requires an operation, Dr. Smith will schedule that patient into the next open Wednesday. He will estimate the length of the procedure and communicate this to a central scheduling system, which computes and schedules the procedure start times for each day in each room. For example, if Dr. Smith schedules three procedures into any given Wednesday, and estimates durations of 2 hours, 1.75 hours and 2.25 hours, the scheduling system adds $\frac{1}{2}$ hour clean time after each procedure and schedules start times of 8 a.m., 10:30 a.m. and 12:45 p.m.

In Highland Hospital, the average procedure takes 2.4 hours, including cleaning time, and currently there is an average of three procedures scheduled into each room each day. Procedures still underway at 4 p.m. do not stop, of course, so the surgical team stays until everything is complete. Physicians get paid by the procedure in their professional fees, which are billed separately from the "facility fees" for the hospital. The hospital provides all of the staff and the rooms and infrastructure, and bills for these at a standard rate. The standard rate does not include overtime expenses for the staff, so the hospital has to absorb these costs if cases run long. Surgeons cannot schedule so many procedures into a single day that significant overtime would result.



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