



Forecasting Clinical Demand in Radiology

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Patient Flow and Staff Availability in Radiology Practices

Patient volume in radiology practices fluctuates frequently, and it falls to the scheduler to ensure that there is enough staff assigned to meet the clinical demand of patients. In some practices, fluctuations may be easily predictable, such as a winter increase in Florida. For many others, however, the need varies at random and must be adapted to on a daily or weekly basis.

On top of changes in patient demand, practices must also contend with changes in provider availability. How many techs are needed? How many radiologists? Are there enough credentialed providers in any given location?

From a practice manager's perspective, there are two main questions that must be answered each day: Do I have the right mix of providers for the current day's exam load? Am I paying for any providers who are not being fully utilized?

These questions strike at the heart of issues of practice efficiency. Given rising costs and continued cuts in reimbursements, the more efficient a practice can be, the better its chances of remaining viable.

The tool of choice that practices traditionally use to address these issues is staffing quotas. These provide a clear rule by which to gauge whether a sufficient number of providers have been assigned for the day.

What they cannot gauge, however, is whether the number of providers – or their credential mix – is right for the actual day's exams. Nor can they gauge whether every provider on staff is being fully utilized.

To answer those questions, practices must go a step beyond staffing quotas and start looking at their data. By combining data on patient volume and imaging requirements for the upcoming day or week with data on staff availability and hours worked, practices are able to match providers to patient needs with extraordinary precision.

This approach to forecasting patient demand ensures practices work at the highest level of staffing efficiency and utilization.

Long-Term Planning vs. Short-Term Needs

A closer exploration of staffing quotas gives insight as to why they are necessary – but not sufficient - for practices striving to improve staff efficiency.

For long-term planning, staffing quotas are essential. They provide a rough idea of who is needed for each day and each procedure, and are an extremely useful tool for budgeting.

Yet, when it comes to fine-tuning the details of who is to be scheduled on a specific day, it's a whole other story. Whether from inappropriate credential mix or a sudden change in a provider's availability, staffing quotas can be way off the mark on any given day.

Seemingly a small issue at first glance, these inaccuracies can cost a lot of money. When practices discover at the last minute that they don't have enough interventionalists (for example), they must scramble to locate another, appropriately-credentialed, provider. This can lead to costly staffing situations, in which someone is called in to work overtime, or the practice hires a locum. Moreover, when the inappropriately scheduled provider is then let off the schedule for the day, they are still being paid for their time. This results in a situation in which the practice pays double: first, for the person brought in at the last minute, but also for the person sent home.

Reducing The Cost of Unutilized Space and Imaging Equipment

Radiology practices are being hit hard by the transition away from a fee-for-service model. Instead of a revenue center, they are at risk of becoming a cost center – and unutilized imaging equipment only compounds the situation.

When imaging rooms are left unutilized, radiology practices get hit with costs on several levels. First and foremost is the cost of staff, who need to be paid even when a procedure is canceled. Then there are overhead costs, including cost of the room, as well as the equipment, itself. Lastly, is the opportunity cost stemming from canceled procedures. When revenue is lost due to cancellations, it can throw off the rest of the day's schedule, increasing the revenue loss.

Patient demand forecasting helps control costs by ensuring rooms and imaging equipment are fully utilized by appropriately credentialed providers.

The Key Is In The Data

A practice manager looking to use patient demand forecasting to control costs needs to begin with the data. To forecast effectively, the practice needs to determine:

1. Patient volume and acuity
2. Staff availability and credentials
3. Hours worked (and scheduled to be worked) per provider in current pay period

Integrating the data is what makes them so powerful. While these data are likely available, they are also likely to be kept in separate systems. Patient volume and acuity data come from the RIS. Staff availability comes from staff schedules. Credential information comes from human resources. Even the payroll system must be added to the mix, so that hours worked in a given pay period can be calculated.

Real-time data are also essential, as that is the only way to keep all the information up-to-date. Real-time data ensures that any changes made to the staff schedule can be seen immediately in relation to both patient load and potential overtime cost. By the same token, changes in patient load can be seen in relation to provider scheduling. For instance, when a radiologist requests PTO, the schedule must reflect that immediately so that patient load can be appropriately accommodated.

One Giant Leap For Radiology

In this time when costs are high, reimbursement rates are low, and the entire fee structure of health care is in flux, radiology practices would do well to focus on areas they can control, and which can be made more efficient.

Staffing, as the largest portion of a typical practice's operating costs, represents one such area. Practices have complete control over their staff schedules, and efficiency in this arena makes a positive impact on the practice budget.

By collecting the right data and integrating it in real-time, managers gain insight into their practice while there is still time to effect change. For instance, when RIS records are integrated with staff schedules, practices are able to ensure the right provider is assigned to the right location at the right time. This lets practices balance their staff in direct response to patient demand.

By making better use of patient, staff, and scheduling data, patient demand forecasting lets practices reduce the costs of overtime and locums, as well as the

cost of unutilized space and imaging equipment. It provides radiology practices with an effective tool for remaining viable in the changing sea of modern healthcare.

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