Change for the Better

The essentials for improving cath lab efficiency.

BY DENISE BROWN

Despite the steady decline in cardiac catheterization volumes since 2008, as documented within the 2014 MedAxiom Annual Survey results (Figure 1),[1] many cath labs are challenged to effectively and efficiently work within their current physical lab footprint. Uniformly, the root cause is reported to be the increased demand for lengthy, complex, hybrid, or multioperator cases, which simply bottlenecks room flow and availability.

Due to dwindling reimbursements associated with the various payment reform penalties, most hospitals/health systems are caught in a Catch-22: finance leadership is hesitant to release the capital necessary for expansion but is anxious to accommodate the purported increased caseload while still reeling from the decline in overall coronary procedures.

Before beginning any onerous due diligence on cath and specialty lab expansion, I typically recommend that my clients conduct the following exercises to collect the necessary data to prove that current capacity is being maximized and the significant expense of expansion is actually warranted.

CALCULATE YOUR CURRENT CATH AND SPECIALTY LAB UTILIZATION

Using the data from your cath lab's scheduling or hemodynamic system, track your current total capacity by room and by day of the week. If your rooms are not maximized, you will quickly identify gaps of activity, specifically, periods of time when the rooms are unused outside of room turnaround time. Typically, these data will show trends in rooms or days of the week that are less popular or when multiple providers have duties keeping them out of the cath lab.

Be certain to factor into your analysis the number of hours each room is run daily, outside of emergencies, as well as the number of days the lab is regularly staffed per week. If you currently staff your rooms only 8 hours per day, and expanding your daily schedule to a 10- or 12-hour workday mitigates any backlog, then modify your schedule rather than adding another room. Additionally, you should consider whether your lab is busy enough to warrant scheduled weekend hours to keep up with provider or patient/market demand.

In my experience, and also through research done by Tyler et al, if each room does not reach 80% to 85% daily capacity, I would not recommend pulling out the checkbook and planning for more equipment without first getting more creative with cath lab schedule management.[2]

PROCESS MAP THE CURRENT PATH YOUR PATIENTS FOLLOW TO UNCOVER INEFFICIENCIES

Outside of the constraints of your daily schedule, it is important to identify any departmental or process bottlenecks that may sabotage your ability to quickly transition patients to the lab and meet your case on-time start goals. It is critically important to walk the path of patients on the day of their scheduled procedures. This will not only clearly identify areas of process inefficiencies, rework, poor handoffs, and areas in which staff retraining may be warranted, but most importantly provides a bird's-eye view of the patient experience.

Typically, the patient's preprocedure planning process and the cath lab live patient preparation processes are the areas most requiring redesign. It is imperative that providers

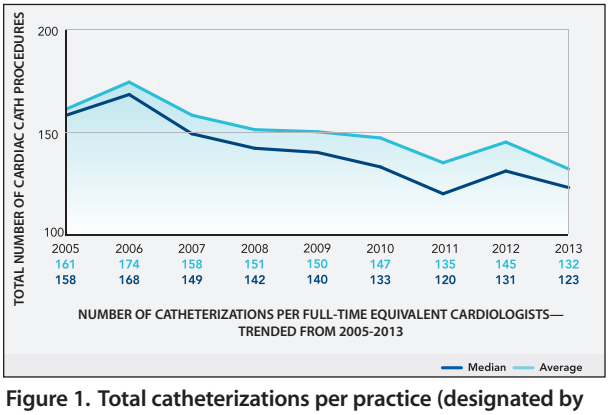

Figure 1. Total catheterizations per practice (designated by physician) and inpatient and outpatient catheterizations (including catheterizations on owned equipment).

clearly outline the necessary patient preparation requirements and allow for ample time in the return of preprocedure testing results. Many labs can be drawn in advance of the patient arriving for the procedure, and having a sound process to ensure the work is performed and the results are on hand for the proceduralist prior to the procedure is a must. Additionally, standardization on the part of the providers in creating preprocedure orders will reduce staff confusion and total patient process time.

Patient intake on the day of the procedure is where the rubber meets the road and where the ills of poor prework and planning processes halt the patient's progress. It is at this juncture that chaos can occur, stat labs are ordered, patients are backed up in the prep area, and the daily schedule gets off track before the day even begins. Walking the path of the patient will be most instructive in clearly identifying poor handoffs and workflow issues as they occur in the providers' office, as well as with the cath lab intake and preparation team. Resolution of process issues at this point of the patient experience ensures improved patient satisfaction and timely arrival to the cath lab for an on-time start.

REVIEW STAFF PERFORMANCE AND RATIOS TO ENSURE OPTIMAL SUPPORT

Production and quality metrics within the cath lab are absolutes as you measure and report on the work associated with your physician operators. But, what about performance metrics related to your staff? In order for the lab and the operators to perform at a high level, the staff must also be effective, efficient, and held accountable for their contribution to the overall workflow.

The staff should be armed with written work standards for each workflow process that they are responsible for performing. Equally important is the need to regularly monitor and retrain staff on duties from room turnaround to the use of specialty equipment and/or conducting various clinical techniques. Cath lab leadership and the providers play a critical role in educating and providing continuous feedback to move staff to the highest levels of expertise.

As it relates to cath lab staffing, a larger team isn't always the answer to a smoothly running day or department; it may just be pointing to unnecessary expenses and inefficiencies. Having extra staff support a room to provide expertise not present in the day-to-day staff, or having an abundance of staff overtime on your payroll report, especially when capacity isn't full, are red flags that a thorough review of your training processes and staffing logic is needed.

COLLABORATE TO EFFICIENTLY LEVEL-LOAD DAILY ROOM SCHEDULES

A cath lab cannot run efficiently and be a revenue center if every provider wishes to perform cases from 7:00 AM until 10:00 AM, then conduct rounds and hit the office for afternoon patient visits. Likewise, not all providers can book lab time on Monday and Friday, leaving rooms open the other days of the week. Holes in daily cath lab schedules reduce overall cath lab utilization, which wastes precious resources, not the least of which is an expensive and unproductive staff.

In cardiac service line organizations, strong administrative and physician leaders having a shared interest in efficient hospital processes typically tackle the difficult task of level-loading provider access to the cath and specialty labs. The use of block scheduling (for full or half days) in conjunction with logical room assignment based on availability naturally eliminates gaps of time when the rooms go unused and staff is unproductive. If providers can agree to focused block schedules in the cath lab and not scurry off to rounds or to office, administrative, or outreach duties, their overall schedule will be less fragmented because they can stay in one place and are, ultimately, much more productive.

CONSIDER EXPANDED SERVICES AND RECRUITS, BUT STAY COMMITTED TO CONTINUOUS PROCESS IMPROVEMENT

As you build dashboards to monitor and report the various data elements suggested, you must regularly review schedule efficiency and staff performance, track physician satisfaction, and keep in mind that today's fully optimized cath lab processes and workflows will always require continuous management and improvement. Keep your eyes open for the latest technologies, and keep your ear to the ground to learn about the latest operator to be added to your team, so that you can stay ahead of the curve and anticipate his/her cath lab needs.

Although the delicate balance of your cath lab schedule will be upset by consistently adding new providers or case types, staying true to your commitment to capacity management and filling each room optimally each day with improved data collection positions allows you to have better control of your department and its destiny. With such rigor around these processes and data collection, you and system leadership will know when cath lab expansion is truly necessary. ■

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1. The 2014 MedAxiom Annual Survey (a proprietary survey based on MedAxiom membership data).
2. Tyler DC, Pasquariello CA, Chen C. Determining optimum operating room utilization. Anesth Analg. 2003;96:1114-1121.