

## Enhancing Expertise in the Cath Lab: The Impact of the Clinical Ladder

By Katherine Kay Brown

Even though cardiovascular disease claims one of three lives in the United States today, technology advancements in the treatment of coronary artery disease have finally reduced its death rate according to the annual *American Heart Association: Heart Disease and Stroke Statistics* report. Much of the reduction is attributable to advancements in the cardiac catheterization lab that emphasize intervening during a myocardial infarction as well as providing secondary prevention post-myocardial through revascularization (AHA, 2016). With cardiac catheterization labs providing the preferred approach to cardiovascular disease, we see a growing demand for their services. A survey by Springboard Healthcare garnered 359 cath lab responses regarding their case volumes, with 40% of respondents experiencing increasing growth, 43.5% reporting steady volumes, and only 6.5% experiencing a reduction, which can be explained by competitor encroachment in many situations (DAIC, 2012).

Cath lab growth has been reflected in a positive job market outlook for cardiovascular technologists since 2004. Vacancies nationally have increased nearly 12% within that time, and over the next two years, demand is expected to increase to 12,680 jobs (Recruiter.com, 2016). Cardiac cath nurses are also in demand, one of the many specialties included in the 1.1 million RN shortfalls predicted for 2020 (ANA, 2014). Even traveling agencies that supply temporary staff are having difficulties recruiting for their clients.

With these facts, Corazon believes it is now more important than ever to focus on a cath lab work environment that promotes recruitment and encourages retention of valuable staff. A stable and knowledgeable team results in attention to customer satisfaction and quality outcomes, while a lack-of can lead to shortfalls in these areas – something no hospital can afford amid the scrutiny of today. With community hospitals beginning to offer angioplasty with off-site surgical support, fewer staff are recruited en masse, while larger hospital centers with established cardiovascular programs struggle to retain their staff due to increasing competition for talent.

Corazon experience proves that programs that integrate novice staff within an inclusive learning environment while encouraging the competent and expert staff to enhance their clinical and leadership skills are most successful with staff recruitment and retention.

Clinical ladders were developed as adjuncts for recruitment and retention during the nursing shortage of the 1980s, and have been used in nursing departments for decades, fully embraced by professional organizations such as the American Association of Critical Care Nurses (AACN) in their 'Standards for Establishing and Sustaining Healthy Work Environments' (AACN, 2016). Essentially, a clinical ladder offers a structured system that clearly provides a path for staff career advancement (and economic rewards) while outlining skills required in the clinical setting for direct patient care.


Due to shifting practice trends and the financial uncertainty of the future of healthcare, perhaps now is an appropriate time to strategically focus on the clinical staff in the cath lab – both registered nurses (RNs) and cardiovascular / radiology technicians. Surveying the 'Cath Lab Spotlight' cases presented monthly in *Cath Lab Digest*, labs with active clinical ladder programs elsewhere in the hospital were more likely to adapt a version for the cath lab. In fact, the majority of cath labs responded that they were 'in the process of investigating a clinical ladder, though a few discussed having a cath lab RN-specific clinical ladder.

Although the cath lab RN and technologist bring unique expertise from their educational preparation, Corazon recommends cross-training as much as possible and establishing work roles as a team rather than isolated responsibilities. Cardiovascular Credentialing International (a not-for-profit independent credentialing agency) realized the importance of certification for both roles based on the standard body of knowledge related to the pre-, intra-, and post-procedural care of the patient. In response, the Registered Cardiovascular Invasive Specialist (RCIS) credential was created, and has emerged as a standard requirement (within 1-2 years of hire) in many cath labs, especially for labs hiring staff with minimal cath lab experience or those who are inexperienced with procedures but have emergency department or critical care skills. Obtaining the RCIS credential will no doubt improve staff skills and knowledge base, and Corazon advises clients to consider this certification for staff as a means to ensure clinical and operation best-practice care standards are met.

Clinical ladders exist in many forms, though most have multiple 'rungs' or steps based on how overall clinical functioning of the individual is defined within the context of the organization. The table below represents Dr. Patricia

Benner's concept that expert clinicians develop skills and understanding of patient care over time through a sound educational base as well as a multitude of on-the-job experiences (Benner, 1984). A clinical ladder can be built with set expectations around those levels of clinical

development, and the steps can be either collapsed or expanded in regards to the expectations set forth by the hospital or departmental leadership.

SAMPLE Clinical Ladder					
Expectations commiserate with the levels within the clinical ladder	Novice	Advanced Beginner	Competent	Proficient	Expert
Level	I	II	III	IV	V
Experience	None				Expert Mentor/Teach
Clinical Skills / Cross Training – Facilitated by Orientation and preceptorship	Primary Role, not cross-trained	Primary Role + Precepted in secondary role	Circulate, Scrub, Monitor	Circulate, Scrub, Monitor, Troubleshoot	Circulate, Scrub, Monitor, Troubleshoot,, Mentor/Teach
Continuing Education Hours/ Year	10	20	40	60	80
Competencies - annual	Annual	Annual	Annual	Annual	Annual
Certification	ACLS	ACLS, RCIS	ACLS, RCIS	ACLS, RCIS	ACLS, RCIS
Quality Improvement – ACC/NCDR	Accurate data entry				Data analysis + QI Initiative Dev
Staff Leadership Goal / Project	None				Ongoing project /area of expertise
Financial Incentive	Base Salary	Bonus or % ↑	Bonus or % ↑	Bonus or % ↑	Bonus or % ↑

Of course, as the staff member progresses through the levels of the clinical ladder, expectations in all categories should increase. The detail criteria within the levels should be decided by a multidisciplinary cath lab team in an effort to raise expectations in a step-wise fashion. While the novice, along with the expert, should be proficient in all required competencies of their current level, they may not be cross-trained in all roles, initially only focusing on mastering their primary role. Corazon often recommends that multiple categories that develop the staff's clinical expertise, proficiency in decision-making, communication skills, teamwork abilities, and leadership potential be included in a clinical ladder. Two categories to point-out in particular are the quality improvement focus and staff leadership goal/project.

Cath lab outcomes are assessed through participation in the American College of Cardiology National Cardiovascular Data Registry (ACC-NCDR), which takes the involvement of all knowledgeable cath lab staff to efficiently provide an accurate description of their patients' clinical acuity in relation to their post-treatment outcomes. For example, a mortality or complication can be predicted

with an accurate portrayal of the patient's pre-procedure comorbidities. Thus, staff should also be knowledgeable in reporting and then using cath lab data to drive improvements in care processes.

The goal of the leadership project is to find an ongoing endeavor and become an expert in that subject matter. For instance, a staff member who is drawn to technology may choose to update the Impella policy / competency and then educate staff on this topic. Over time, this staff member can become the liaison to the vendor, and educate staff as advances in technology occur, also serving as a resource for staff in complex situations. This is just one example of a scenario that could result in a win-win for the employee and the hospital or program. As the goal is accomplished, the employee gains greater experience and expertise in an area of interest.

In summary, successful clinical ladders offer an opportunity for professional development, increased recognition, and financial rewards. Not only do staff prosper in an environment such as this, but the hospital enjoys a high retention rate and the patients experience

higher-quality care. The cyclic nature of a highly-functioning staff being highly-motivated and satisfied with their job translates to better patient care and happier patients.

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