Transplant program alive and well

By Bill Fearneyhough

I recently sat with PCMS member Scott Lick MD, Professor of Surgery at the University of Arizona, to discuss the University’s storied heart and lung transplant programs. Many in the medical community have been wondering if the programs are still active after Jack Copeland’s departure about five years ago. Scott returned to Tucson in 2014 as Director of the University’s Heart and Lung transplant programs, and was glad to set the record straight:

Q: Is UA still transplanting hearts and lungs?

A: Yes, the heart and lung transplant programs are alive and well at U of Arizona!

Q: Why haven’t we heard more about them?

A: The lung program was pretty much shut down for three years, as there was a long period without any lung transplant surgeon. We re-started it March 2015 and are keeping a low publicity profile until we get Medicare re-approval – which we applied for earlier this year, immediately after we completed our 10th lung transplant. Next comes their site visit to certify us. Most insurers follow Medicare’s suit. So once we regain Medicare’s blessing, we’ll play the trumpets!

The heart program was closed for a shorter time, for the same reason; it re-opened in mid-2014 and continues to be a Medicare-approved program.

Q: Why did the programs temporarily close?

A: Frankly, the place went through a post-Copeland purge: the previous Chairman of Surgery made life uncomfortable for anyone tied to Jack, and they left. And they were the heart and lung transplant surgeons. It went through some dark times.

Light started re-emerging shortly before Leigh Neumayer, MD, became Chair of Surgery in 2014. She understands that thoracic transplant is a core identity of the Department of Surgery. She is one of our biggest champions.

Q: Is UA still implanting ventricular assist devices and artificial hearts?

A: Definitely. We still have the whole Artificial Heart Department intact, including Rich Smith, MS, who has been running that show for some three decades. We implant all the currently approved long-term devices: Heartware, Heartmate, and the SynCardia total artificial heart (TAH). We’re involved in TAH trials, and implant devices as both bridges-to-transplant, and as end-destination therapy. We have clinical engineers on call 24/7, along with clinical VAD coordinators. Zain Khalpey MD, PhD, is the surgeon in charge of the devices, and he loves device patients.

Q: How does the acquisition by Banner Health play into this?

A: First, the Banner purchase stabilized our hospital, which had been losing money hand over fist. Our fiscal goal this year is to break even, and we’ll be close to that. We needed to pull out of that financial dive to be around for the future and do what we do well.

Second, in Banner’s chain of 20-some hospitals, we are the only hospital that does thoracic organ transplants. So we’re a natural complement to their system.

Third, Banner is building us a new hospital. We’re long overdue for one.

Q: How did you end up here?

A: I trained here ’87 to ’94, in General Surgery and then in CT Surgery, under Jack Copeland, and then went off to run the heart and lung transplant programs at the University of Texas Medical Branch (UTMB), which is on Galveston Island, Texas. UTMB is the oldest medical school west of the Mississippi, with a long teaching history. There I learned a different school of cardiac surgery from the division chief, Vince Conti MD—basically, the University of Alabama at Birmingham technique. So I consider myself double-trained. Long story short, after two decades at UTMB, the UA needed someone who does exactly what I do: teach a cardiac surgery resident to operate, and run the heart and lung transplant programs. So I came back in 2014. And its good to be back!

Q: How does U of A Cardiothoracic Surgery fit into the Tucson medical picture?

A: Like a lot of academic CT Surgery programs around the country, we take on “project” patients other surgeons and hospitals won’t or can’t. Such patients often need the blood banking, critical care and anesthesiology support a trauma and academic center provides. And these cases are great for teaching, particularly residents, which is our core mission. Examples would be ECMO, endocarditis needing a homograft, aortic dissections, post-infarct ventricular septal ruptures, VADs and transplants.

We are under no delusion that bread-and-butter cases will be sent to us in large numbers from outside hospitals (although we always welcome the business!). But we do fill a complementary role for them.

Q: What makes a good transplant candidate?

A: The overlying theme is single-organ disease that is progressive despite all other therapies. By single-organ, I mean their other organs have to be working reasonably well. We do make the occasional exception, such as a young patient in need of a combined heart/kidney transplant. But single-organ disease is a good general rule.
Q: Why should community physicians send thoracic organ failure patients to UA? Won't they just disappear into a “black box”?
A: First, a lot of cardiologists don't really want to take care of heart failure patients. Readmission is always looming over them, with bad reimbursement implications for the hospital. And, it is a labor-intensive patient group. So we have built, under Nancy Sweltzer MD, PhD, a full-time cardiology heart failure service. They like taking care of these patients. And they will work with the referring doc so that it’s not a black box.

Second, it is far better to refer patients earlier than later. It's not so much a referral for transplant as a referral for possible transplant. We see a lot of people who are too early for transplant, and that’s fine. They benefit from a second set of eyes, and we identify in advance if there are other issues to address before considering a transplant.

The tragedy is when one is referred too late: non-ambulatory, kidneys failing, cachectic. We often can’t help them, as they’re too far gone to survive any operation—lung transplant, heart transplant, or VAD.

Third, there is a life-long relationship of necessity between a transplant recipient and hospital. We weren’t made to have someone else’s organs, and so follow-up is forever. If a patient is from Tucson, it certainly is easier for her to have her post-transplant follow-up in Tucson! Think local, and stay local.

Q: How experienced are the UA's current transplant teams?
A: In a word: very.

On the lung side, Steve Knoper, our primary transplant pulmonologist, has been taking care of lung recipients since we were residents together in the early 1990’s. Our other transplant pulmonologists include Josh Malo, Jim Knepley, Janet Campion and Afshin Sam -- and two mid-levels, Christopher Prescott and Hossai Shah. Importantly, we have very experienced transplant pulmonologist allies in Phoenix (Banner Good Samaritan) who carry dual appointments with us — Rajeef Sagar and Tony Hodges. We do a lot of teleconsultations with them, and they are part of our program.

On the heart side, the transplant/heart failure cardiologists are Nancy Sweltzer, Mark Friedman, Prakash Suranarayana, Elizabeth Juneman, and Jennifer Cook. Along with them, we have 2 midlevels, Pam Pomeroy and Sharon Gergo.

As for surgeons, Sam Kim and I do the lung transplants, and Zain Khalpey and I do the heart transplants. I’ve done well over 100 lung and 200 heart transplants over the last 20-plus years.

So we have seasoned teams and deep benches.

Q: What else is going on in CT Surgery at UA?
A: Mary Jane Barth, MD, a senior congenital heart surgeon in Oklahoma, is coming to re-start our congenital heart surgery program this year. All residency programs throughout the hospital – radiology, pulmonary, pediatrics, etc - gain from having congenital heart surgery in house, so that’s an important boost.

Sam Kim, MD, has developed a nice trachea resection practice. At five-to-ten resections/year, he does more each year than many thoracic surgeons do in a career. So he is a local treasure, and a good resource.

We put into place some standardized improvements to the adult heart surgery practice after 2014 (mainly, Intra-op heart preservation, cardiac exposure, and timing of operation). As a result, mortality plummeted. We’re now getting better-than-expected risk-adjusted mortality for both cardiac and thoracic surgery. The University Health Consortium recently came out risk-adjusted mortality rankings for 2015: We ranked 17th of 117 academic cardiac surgery programs, and 9th of 105 academic thoracic surgery programs. In investment parlance, we’re “beating the Street”. So you can rest assured your patients will get a good operation at UA.

These same reforms directly led to better teaching of residents, because when heart preservation is predictably good and exposure is good, you can teach. So the CT Surgery residents are being taught how to do predictably safe surgery.

These are good days for UT of A CT Surgery. We really look forward to building the transplant and VAD programs, and working with the community.