



## NC Vet College Dives Into Lean Training

### ***Improved Processes Means Faster, More Efficient Care for Patients***

In any organization, solid communication and time-sensitive operations are critical to overall success. But when your organization serves multiple purposes—teaching new veterinarians while also tending to the health and welfare of four-legged clients (and the management of their anxious owners)—a smooth, streamlined system is vital.

The concept of streamlining is integral to Lean processes. When organizations—manufacturing or otherwise—engage in Lean training, they're empowering participants to look at the existing processes and initiate vital changes that will offer lasting, positive impact.

NC State's College of Veterinary Medicine is a large teaching hospital that is divided into areas called "services," such as surgery and the pharmacy. While many of these groups interact closely with each other, one of the key partnerships within the hospital is between the anesthesiology and surgery services. Vet School surgery and anesthesia services worked together during Lean training.

"We'd tried various methods for resolving logistical issues between the services," says Samantha Parrett, director of business and administrative services at the Veterinary Health Complex. "We'd made some progress but still were not as efficient as we needed to be. There was still a lot of pressure on the surgery side, and we had to figure out how to make things more efficient so we were utilizing our resources better."

For example, Parrett explained, in order for surgeons to start their first case at 9 a.m., the anesthesiologist had to review the case and tend to the accompanying checklist of procedures: Blood work needed to be done and the patient needed to be prepped—which could take anywhere from 20 to

### **NC State's College of Veterinary Medicine Challenge**

The Vet School needed to resolve logistical issues between services to improve efficiency and make better use of resources

### **IES Solution Lean Healthcare**

### **Benefits**

Decreased wait times for prescription medication, increased access to patient records, clearer communication among the hospital's service departments

50 minutes, depending on the type of animal and the coat. All the prep work meant the chance of an early surgery start time being delayed if anything didn't go smoothly.

In November, IES improvement specialist Jim Kurian worked with the Vet School to help understand the existing flow of their materials and services using a Lean tool called a value stream map. A value stream map outlines the current state of the process so participants can identify any spots that are inefficient or in need of change. "After identifying trouble areas, organizations can generate ideas that will let the operation run smoother," Kurian says.

Anesthesiology is a department that touches virtually every group in the complex. By bringing a broad group together—attendees of the Lean training came not only from anesthesiology and surgery, but also the pharmacy, neurology, orthopedics and other specialty services—different services had the opportunity to voice their opinion and offer solid input toward improvement.

The benefit of getting a broad group together to discuss ways to streamline the process was evident almost

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— Samantha Parrett,

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NCSU College of Veterinary Medicine

immediately, since communication was a top concern from most participants.

"We have an electronic patient communication log," explains Parrett. "Any time services talk with owners or vets about existing patients, it gets logged into the electronic medical record of the patient. Anesthesiology had no idea that was even available. Cutting out the paper record would eliminate an anesthesiologist having to search for that file if it was misplaced. They could just go straight to the digital location."

Parrett and the other attendees are enthusiastic about continuing the Lean process. "Not only is it a very effective means of solving issues, but it's also a very effective way to engage employees at all levels," she says. "It empowers everyone to participate and improve their own work environment."

Parrett says the team has enthusiasm for the process and for putting in the work; they know they're making a difference, and not just passing down an edict for change.



“One of the best things about it is that it’s not set in stone,” Parrett says. “Lean takes the approach of, ‘Let’s try this and see if it works,’ and then we can adapt accordingly. That openness is crucial to the process and helps even those afraid of change know they can give it a shot with confidence.”

### **Pharmacy Department Finds Lean Success**

While the surgery and anesthesiology services at NC State University’s College of Veterinary Medicine were just beginning their Lean adventure, the pharmacy service had already begun to reap the benefits from their own experience. Naturally, as with any change, the process hadn’t been without bumps.

Like the anesthesiology service, the pharmacy service interacts with virtually every other service at the veterinary complex, which meant that issues between groups were bound to come up. So in August 2013, the pharmacy worked with the oncology department to do the value stream mapping project to work out kinks that were delaying processes.

For example, one issue addressed was “batching,” when the pharmacy would set a time to fill chemotherapy orders from oncology. That involved donning a gown, entering a “clean” room and mixing chemicals.

“We’d do them in batches at a certain time, doing several at a time,” explains David Provost, the purchasing manager for the Veterinary Health Complex Pharmacy. “That meant oncology was delayed until we filled those orders at that



particular time. Now, we just go with the first couple we get, filling them as soon as they come in, regardless of what time it is.”

Provost saw an increase in communications. “It was eye-opening for everyone, since before this, people rarely got to see the perspective outside of their immediate department,” he says. “A lot of things got cleared up that had been miscommunicated. It gave us all a chance to see and talk about the bigger picture and how we all interact. That helped smooth out any resistance, too.”

Provost says he would wholeheartedly recommend the experience. “It’s a fantastic opportunity to look at your processes and take time to think about things you don’t usually get a chance to because you’re always hustling to get your core duties accomplished,” he says. “I can’t recommend it strongly enough.”

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