Texas Children’s Hospital: Pharmacy Intervention Improves Ambulatory Surgery Experience

By Diana Mahoney

The patient experience is a proxy for the quality, safety and patient centeredness of care. This assertion, voiced at the Press Ganey Children’s Hospital Executive Summit by Dr. Larry Hollier, surgical director of patient experience at Texas Children’s Hospital, has been fundamental to the success of an innovative discharge medication delivery program that brings pharmacists to the bedside of ambulatory surgery patients.

Through the program, pharmacists bring the prescribed medications to families prior to discharge (within one hour of the medication being prescribed by the provider); counsel the families on how the drug should be administered, possible side effects and the importance of adherence; and answer any questions or address any concerns about the medication and what to expect. As a result, patients get the medication they need to promote recovery; parents get the information they need in a timely, convenient manner to ensure adherence; and pharmacists are able to connect with patients in a way that enhances their job satisfaction.

Called Meds to Beds, the novel program was conceived in June 2015 to address what Dr. Hollier refers to as the “paradox of hospital care at discharge”: the failure to dispense critical medications to support patients’ ongoing recovery after they leave the hospital.

“The irony is that we spend so much time trying to get the right medication in the right dose to make our patients feel better, then when they’re ready to go, we give their parents a piece of paper and say, ‘Go get this somewhere,’” Dr. Hollier said. “That’s presuming a tremendous amount of compliance on the part of these families, and I don’t know if that’s a safe presumption.”

Relying on community pharmacy services “for something so critical” also raises concerns, Dr. Hollier said. The error rate associated with outpatient prescribing systems ranges from 4% to 35%, and dosing errors with pediatric medications range from 15% to 35%, according to data from the Institute for Safe Medication Practices. The risk of error, coupled with the lack of pharmacy staff with pediatric expertise and challenges outside pharmacies face when attempting to clarify prescription issues with prescribers, can compromise the safety of care.

The safety threat “is reason enough to do a better job with prescribing medication to our patients,” Dr. Hollier said. The possibility of improving the overall experience for patients and their families is another. “Before we began this project, we asked families how satisfied they were with their outpatient commercial pharmacy, and not many were really satisfied,” he said. “When we asked those same families if they would be likely to use a provider discharge medication service, most said they would, because of the convenience.”

When considering expanding its existing outpatient pharmacy service to include the delivery of discharge medications, Texas Children’s leadership decided to focus the effort initially on ambulatory surgery for several reasons. “We saw the greatest opportunity to make an impact on the safety and experience of care in this population,” Dr. Hollier explained. “All of these kids have an acute insult, an incision of some sort, they are suffering, and sometimes they are fairly incapacitated at discharge, so filling a prescription can be hard for the parents. Your child is suffering. Do you take him into the pharmacy with you? Do you leave him in the car? Do you go home first and then go back out?”

Additionally, the medication being prescribed to these children—antibiotics, analgesics—is typically not expensive, which was an important consideration because the plan was to provide the medication for free initially. “As we were trying to figure things out, the cost aspect was getting in the way. We were not yet sure how we would get payment at the point of service, at the bedside, so we made the decision to defocus on the cost so we could work out the process details.”
Building a Comprehensive Launch Plan

The planning and launch of the pilot Meds to Beds program was operationalized in collaboration with Jeff Wagner, PharmD, the hospital’s pharmacy director.

“As an organization, we focus and prioritize projects around the Triple Aim of Population Health, Per Capita Cost and Experience of Care, so any process or design we develop has to focus on all three simultaneously,” Wagner said.

For this project, the development team focused on the ways in which pharmacy can play a role in achieving balance among the three aims:

- **Population Health:** Medication management, adherence monitoring, improving outcomes, collecting provider feedback
- **Per Capita Cost:** Support of patient financial concerns, maximizing the 340B savings and revenue opportunity (the federal government’s 340B drug discount program requires drug manufacturers to provide outpatient drugs to eligible health care organizations/covered entities at significantly reduced prices)
- **Experience of Care:** Focused medication support, access to electronic health records to manage pharmacotherapy

Pre-implementation planning included working with commercial third-party payers to address payment considerations down the line and evaluating all 340B opportunities to optimize discounts. It also required workload assessments to predict what it would take to expand outpatient pharmacy services to include bedside delivery for outpatient same-day surgeries.

“We looked at the number of prescriptions from ambulatory surgery so we could get a sense of what this would be like if we took this on, and we overlaid that with the workload that already existed in the area to get a sense of the resources we would need to accomplish this,” Wagner said. “We were also curious about the number of patients that would be new to us based on the percentage of patients who previously had their prescriptions filled by our pharmacy. Based on their calculations, they determined that more than 85% of ambulatory surgery patients would be added to the pharmacy service, “so we were going to be addressing a whole new patient group in this process,” he said.

Additionally, the team conducted workflow analyses to review and revise every step in the pharmacy workflow. “Because our pharmacists were going to be delivering the medication up to the bedside, we needed to redesign some of our areas. We looked at all of the workloads, how we would get the prescriptions, what the turnaround time would be, and so forth, and used this to redesign processes for efficiency and quality,” Wagner said.

Among the process adjustments were

- The development of a system of color-coded prescription bins to separate prescriptions that required delivery to same-day surgery patients
- The installation of dual monitors so that the pharmacist could review clinical data from patients’ electronic health records on one screen and the hospital’s formulary and other resources on a separate screen
- Inventory adjustments to prepare for the change
- A minimal staffing increase based on the workload projections

One of the most important process considerations pre-implementation was staff education and engagement. “We had to educate the providers, nurses, pharmacy staff, registration folks and patient advocates,” Wagner said. “From our initial workflow design, we had to identify who would be accountable for making sure the patients’ pharmacy benefits information gets into the health record, and we had to establish a process for that.”

Education efforts were targeted to be specific to individuals’ roles. Physicians were educated about the service in general to ensure their awareness; nursing staff training involved information about prescription flow and communication with the pharmacy about patient flow; and pharmacists received education about discharge prescription counseling to parents and caregivers, and workflow adjustments. By the time the pilot project went live, “staff felt well prepared,” said Wagner.
Meeting Families’ Need for Care, Communication and Convenience

Pre-implementation planning for the Meds to Beds service began in June 2015 and continued through September, during which time patient experience metrics were gathered with a pre-implementation survey. The pilot was launched in October, and from November to January, the impact on the patient experience was measured via a questionnaire developed in partnership between the Department of Pharmacy and Press Ganey and administered to families at point of care via a tablet. “The survey takes families less than two minutes to complete,” Dr. Hollier said. “They use an iPad provided by one of our associates. They complete the survey on the way out of the hospital with a prescription in their hand.”

During the pre-implementation period, 2,664 prescriptions were written for the hospital’s same-day surgery patients, of which only 25 (0.9%) were filled by the outpatient pharmacy. In the post-implementation period, 3,316 prescriptions were written and 2,119 of them (63.9%) were filled in-house, Dr. Hollier said.

With respect to the volume of prescriptions overall that were processed by the outpatient pharmacy, the number increased from 6,702 to 8,755, and the respective same-day surgery pharmacy workload percentage increased from 0.4% to 24.2%. “We went from providing pharmacy services to 15 same-day surgery patients to [providing them to] 1,008,” said Dr. Hollier.

The patient experience scores specific to the pharmacy service suggest it was a hit. In the pre-implementation phase, only 19% of patients reported being very satisfied with the services provided by their outside pharmacy, while 100% of patients were very satisfied with medication delivery through the new program and 99% were very satisfied with the medication education they received.

Among the service features that families found most valuable, the following were the most frequently cited:

- Convenience (87%)
- Timeliness (73%)
- Education from the pharmacist (64%)
- Avoiding delays in starting therapy (58%)
- Comprehensive medication care for my child (55%)
- Affordability (49%)

In terms of affordability, the hospital began charging for the medications after they developed processes to accommodate the payer mix. “But our data suggest that cost is not the driver of patient experience. It’s all about the care and the focus on the patient, education and the convenience and timeliness of the service,” Dr. Hollier said.

Even with the process changes, the staffing increase and the initial free medication, “we have already seen a return on investment,” Wagner said. Thanks to the efficiency measures and 340B optimization, the resultant savings and increased revenue have outpaced costs.

Connecting Pharmacists to Their Caring Mission

In addition to improving the patient and family experience, the new program has enhanced pharmacists’ job satisfaction. “The pharmacists really appreciate being able to sit down with the family and really talk about the medication,” according to Dr. Hollier. “Pharmacists go into this field to help people, yet they often feel removed. This changes that for them. They love the education aspect of it, being able to talk to the family there at the bedside and going through the important issues.”

One of the biggest opportunities Dr. Hollier and his colleagues see for this service is in the area of pain control. “We don’t want these little kids suffering, and it’s happening day in and day out. We want to work out the issues that will allow us to staff up and handle all of their medications so we can get them the relief they need.”

With the success of the pilot program, the hospital is planning a phased implementation of the intervention across other service lines. “Everybody is clamoring for this service, and every area of the hospital wants it,” Dr. Hollier explained. “With the number of prescriptions we produce and the size of our organization, we want to roll the service out in stepwise fashion.”