

Overview

The Children's Hospital of San Antonio — a 196-bed facility and one of CHRISTUS Health's 32 hospitals across rural and urban Texas, Louisiana, Arkansas and New Mexico — conducts simulation drills on its labor and delivery unit to practice standardized treatment and communication protocols. Practicing for Patients, a free obstetrics simulation program, was created by the American College of Obstetricians and Gynecologists Simulation Working Group in collaboration with the Council on Patient Safety in Women's Health Care.

Embedded with Alliance for Innovation on Maternal Health (AIM)'s maternal patient safety bundles, Children's uses the program's drills, videos, instruction manuals and checklists to identify, treat and manage expectant mothers who experience a postpartum hemorrhage or hypertensive emergency. This program puts the AIM bundles into action and allows care teams to practice assessing, treating and managing obstetrics emergencies.

In addition to educating staff and building their competency to manage high-risk events, the simulation is designed to improve care coordination and encourage team-based care. For a two-day training, the hospital brings together health care professionals from various disciplines to run practices, simulations and debriefs, as well as take tools and resources back to front-line staff.

"We wanted participation from the intensive care units, anesthesia, pharmacy, blood banks, the emergency room, respiratory therapy, medical directors, nurses, physicians, and even residents, from family medicine and obstetrics to be a part of the drill," said James Hill, M.D., maternal fetal medicine specialist at Children's. "We identify a champion, either a physician or nurse leader and a nurse educator to take the learnings back, and ensure they are hardwired in our daily practices



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James Hill, M.D.

Maternal Fetal Medicine Specialist
at Children's Hospital of San Antonio

and ongoing quality improvement efforts." Participation in this training is required for many care team members, as it contributes to meeting state-level maternal care designations. [Listen](#) to related AHA's Advancing Health podcast to learn more.

Impact

The Practicing for Patients program has allowed Children's to see gaps in maternal care and efficiently

respond to emergencies. Running these stimulations has improved maternal care in four ways:

1. Staff readiness. To avoid delays in treating a high-risk patient, the patient's hemorrhage risk is assessed upon admission and throughout the inpatient stay. The hospital started with one hemorrhage cart for the entire labor and delivery unit. Now, The Children's Hospital of San Antonio has multiple carts, including one in the postpartum unit. The team also uses a checklist to ensure the carts are stocked with necessary supplies and medications.

2. Use of support services. The training also equips staff to understand when and how external support services, such as blood banks and transfusion specialists, need to be involved. Physicians and nurses are aware of support services for patients and their families who have suffered a hemorrhage or hypertensive emergency, in addition, to support services for themselves to cope with the stress of treating and managing these emergencies.

3. Measuring blood loss. Instead of estimating blood loss, the hospital now uses a standard obstetrical hemorrhage checklist to quantitatively measure blood loss. For many, this was a culture change. However, it has helped physicians identify the level of treatment and intervention needed for each individual patient.

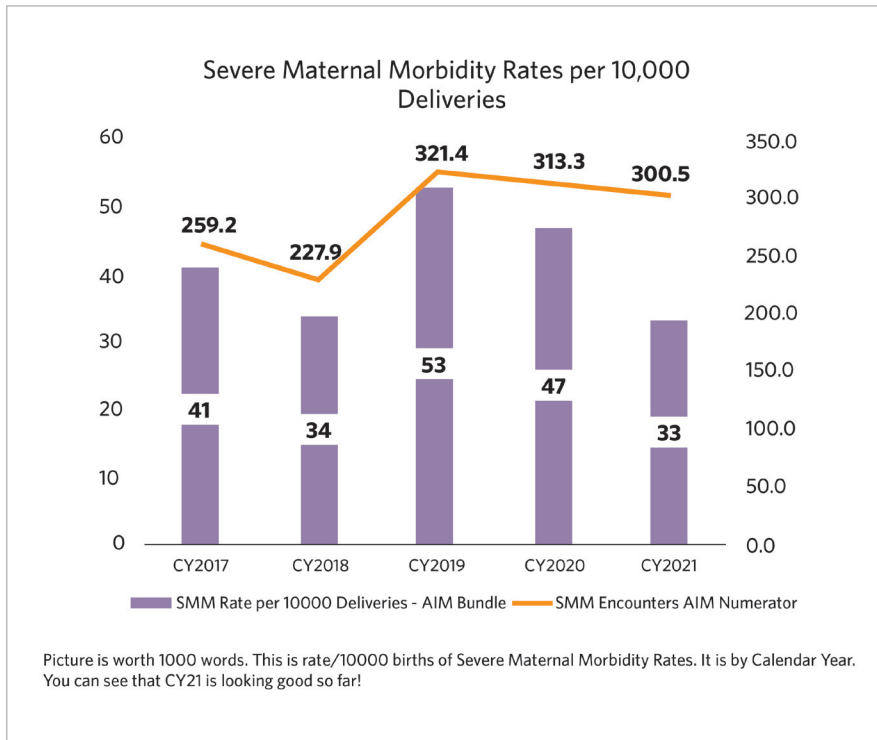
4. Improved communication. The team uses techniques, such as Situation, Background, Assessment, Recommendation (SBAR), closed loop communication, check-backs and debriefs in order to effectively communicate and manage urgencies.

Lessons Learned

The hospital conducted monthly in-person and virtual trainings, pre-scheduled to ensure all types of providers are able to join and learn together. When together, "the willingness and motivation to learn, hear their ideas and solutions and actually see the AIM bundles in action was the

biggest learning," said Shad Deering, M.D., medical director, CHRISTUS Simulation Institute.

Each training session focuses on a different type of obstetrical emergency, allowing time for participants to process the information and practice the material accordingly. Additionally, having the organization's commitment early on was essential for engaging hospital leadership and front-line staff. Identifying champions was also necessary to lead and embed learnings from the simulations into day-to-day practices.



Currently, 98% of medical staff and 100% of the nursing staff have participated in both a post-partum hemorrhage and a hypertension emergency simulation. This has greatly decreased the reaction time and increased the team's performance in responding to these emergencies. Through conducting debriefs after actual events, the staff noticed a decrease in the number of severe morbidity/mortality events, as seen in the chart above, but also increased the comfort level of providers.

Future Goals

As part of a state-led movement to reduce maternal morbidity and mortality, Children's is one of the 120

hospitals across Texas that implemented the Practicing for Patients simulation course. This opportunity will allow physicians and nurses to champion the simulations and facilitate trainings in other hospitals. The CHRISTUS Simulation Institute envisions a library of simulation courses — in-person and virtual — for every AIM bundle to help hospitals put concepts into action. The Children's Hospital of San Antonio plans to offer any new simulations to staff to build a culture for continuous training and education.

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