

Meet the birthing robot that's helping train St. Joe's doctors

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Resident Andrea Mousseau hands Noelle, the birth simulation doll, her newborn. (Kaleigh Rogers/CBC)

"Is the baby on?" a pediatrician asks the nursing educator.

"No, it's on pause. Do you need it to breathe?"

It's not the typical exchange you'd hear in a maternity ward, but with the flick of a few settings on a tablet computer, suddenly Noelle — the state-of-the-art birthing simulation doll recently purchased for training at **St. Joseph's** — comes to life. She has a heart rate, she breathes, she blinks, she bleeds. She even talks.

It sounds like the stuff of science fiction, but the latest piece of training equipment at **St. Joseph's** hospital can help medical students save newborn lives.

"It is a little freaky at first," **Julie Pace, head of nursing education**, says. "But after a few times you get used to it because she's just so lifelike."

Purchased thanks to a donation from the Sandra Schmirler Foundation, the \$50,000 doll is capable of simulating nearly any birthing situation that might occur in a real maternity ward.

Though other institutions, including McMaster University, have their own simulators, the benefit is in having the doll in an actual hospital and not just a classroom, Pace said.

"When we do a simulation, it's not just with nursing students," she explains. "We treat it as if it's real and that makes it more realistic."



The two simulation newborns have been affectionately nicknamed Jojo for St. Joseph. (Kaleigh Rogers/CBC)

Friday afternoon, a group of medical residents, nurses and pediatricians gathered around their robotic patient to demonstrate just how lifelike she can be.

"That's it, Noelle, another big push," resident Andrea Mousseau gently encourages.

"It hurts," Noelle quips back.

Soon, a lifelike simulated newborn — affectionately called Jojo, for **St. Joseph** — appears with its own human attributes: a heartbeat and, like all newborns, a loud cry. Another, softer-skinned "newborn" is then swapped in to simulate a post-birth infant and, depending on the simulation, whisked away for emergency care or united with its mother.

"The nursing staff and the students alike really enjoy it. It allows them to experience real, true-to-life scenarios," **Marnie Buchanan, nurse manager of birthing**, says.

First brought into the hospital in October of last year, Noelle has already "given birth" more than 30 times, providing irreplaceable learning opportunities for students, according to **Pace**.

"Because she's wireless, it means we can go out of the delivery room to different parts of the hospital, like the operating room, for different scenarios," she said. "It's really beneficial."