

Simulated trauma day creates realism and drama for health-care students

Students from University of Calgary, SAIT and MRU participate in interprofessional simulation

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Members of an interprofessional health-care team administer to a patient with simulated injuries.

Second-year Faculty of Nursing student Jonas Vaskas arrived to class on June 26 at the University of Calgary Foothills campus expecting to work with medical students from the Cumming School of Medicine on “some kind of simulation.

“We met our team of about four in a lecture hall and then the door at the back of the lecture theatre opened and a large man dressed in blue with gloves on and a stretcher behind him gave us the situation,” explains Vaskas. “There has been a vehicular motor collision just outside the medical school, we’re doing overflow from the ER here, we need to you to assess the patients before triage can get here, let’s go!’ We all went to assigned rooms where patients were waiting.”

And so began the inaugural interprofessional trauma day — a simulated mass casualty incident organized by a team of instructors from the University of Calgary, SAIT and Mount Royal University (MRU) to expose students to the type of health-care team they will work with in their career. The scenario included medical students from the Cumming School as well as nursing and social work students from the University of Calgary. Nursing students from the MRU program and respiratory therapy and paramedic programs from SAIT also participated.

“It was a dramatic start that morning that definitely threw me off the first simulation,” explains Hannah Brown, another University of Calgary nursing student. “I expected to be in a situation where we would all have to work together and communicate and that’s exactly what happened.”



Another crash victim is assessed by the health care team.

And that's exactly how Dr. Ian Wishart, director of interprofessional education for the Cumming School of Medicine, wanted the students to feel when he designed the day-long simulation event as part of the faculty's Introduction to Clinical Practice course.

By bringing together other post-secondary institutions like SAIT and MRU, Wishart hoped the students would recognize the need for a common language within the interprofessional framework and the benefits of participating in a collaborative team.

"Health-care provision will always be team-based with provider and patient at the core," he says. "But the only way to ensure quality care is a collaborative approach. We train and work in silos; we need to remove those barriers and function as a team."

The tightly structured day involved over 330 second-year students from the various disciplines and almost 100 facilitators who ran through two scenarios — an asthma and a COPD version — in 20 different rooms. Each simulation required a standardized patient (an actor), a facilitator partner acting as a family member or friend to the patient, and another volunteer who observed and evaluated the teamwork. The individual scenario ran 10 minutes with 40 minutes for debriefing and reflection: objectives for each health profession were defined.

For Varkas, the experience was incredibly valuable. "I learned that working together is not easy, that every patient has a family, that I need to redo vital signs when something changes, and that CPR and emergency training usually focuses on healthy people getting into accidents, but people with chronic conditions can have them too — what happens when a diabetic is losing a lot of blood? It changes everything," he says.

An additional goal of the day was to gather research on the outcomes. Sandra Goldsworthy, nursing's research professor in simulation education, co-facilitated a pre-brief for the facilitators that included how to observe improvements in trauma and teamwork skills in the students as they progressed through the scenarios.

"Overall, this large-scale interprofessional trauma day exceeded expectations," Goldsworthy says. "The simulation was a tremendous opportunity for students from multiple professions to work alongside each other in caring for a simulated trauma patient and it illustrates the importance of effective team communication so critical in providing safe patient care. The team plans to repeat the trauma simulation in the spring and study the impact of simulation on team communication and patient care."

"Meeting the medical students, RTs and social workers who we will be working with as early as next semester and as late as our retirement in 30 years gives you an idea of their abilities but also their personalities and roles," comments Vaskas.