

You have the lab,
You have the staff
You have the equipment;
Now what?

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Presenters

- Lise Bonin, RN, BScN, MScN
- Simulation Specialist Instructor,
International Academy of Simulation
University of Miami
- Professor in the Baccalaureate of
Nursing Program, Practical Nursing and
Personal support worker programs,
Collège Boréal



Presenters cont....

- René Lapierre, Advanced EMCA, Advance Care Paramedic
- Simulation Specialist Instructor, International Academy of Simulation University of Miami
- Professor & Coordinator Paramedic program, Collège Boréal



Agenda

- Overview of College Boreal
- Funding
- Brief history
- Integration of simulation
 - a) video conference
 - b) simulation conferences (PN & BScN programs)
 - c) paramedic program
- How do you use the lab?
- Keeping it real
- Conclusion

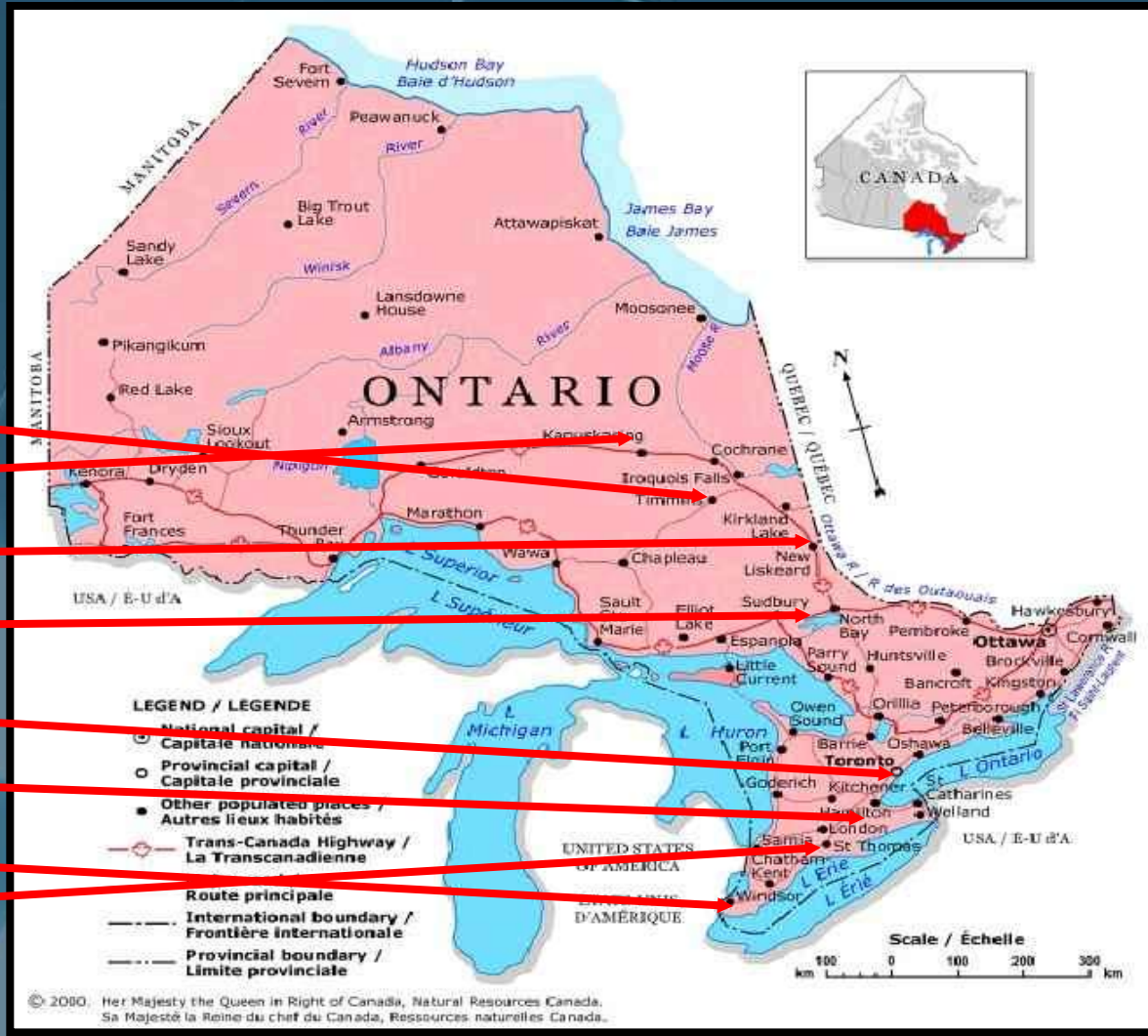
Collège Boréal

- Founded in 1995
- 1000 students in the main Campus located in Sudbury



Collège Boréal

- 400 to 500 students in 9 other campuses across Ontario
- Hearst
- Timmins
- Kapuskasing
- New-Liskeard
- Nippissing
- Toronto
- Hamilton
- Windsor
- London





Funding

- In 2004, the Ontario Provincial government provided one time funding to most post secondary institutions that offered nursing programs.
- The funding was generated due to the lack of certified critical care nurses during the "SARS" outbreak.



Funding cont...

- Current source of funding...
 - a) the College's capital budget and day to day operations.
 - b) CNFS "Consortium National de Formation en Santé".



History of the simulation lab

- Construction began in the summer of 2005; the lab was utilized in the fall of the same year
- Integration into the curriculum was done following an analysis of the program needs and is re-evaluated on an ongoing basis
- Interdisciplinary approach
(both paramedic and nursing professors were involved in the purchase, set up and the integration of simulation into the curriculums)

History of the simulation lab

cont...

- Equipment includes:

Meti: 2 adult ECS, 1 IStan, 1 baby ECS, and 1 ECS pedia sim



History of the simulation lab

cont...

Gaumard: Noelle
birthing &
neonatal
simulator, 1 Hal

Laerdal: 4 virtual
IV stations, 7
Vital Sim Kelly, 1
baby vital sim





History of the simulation Lab

cont...

- At present we have the following programs actively using the lab:
 - Paramedic program
 - Practical Nursing (PN)
 - Medical Radiation Technologist
 - Diagnostic Ultrasound Technologist
 - Baccalaureate of nursing program
 - Personal Support worker (PSW)
 - Massage therapy



How do you use this lab?

- Simulation should not only be seen as a tool to alleviate the pressures of clinical site shortage.
- The objective of the experience is to simulate the realities of real life patient care situations for the student prior to actual patient contact.
- Identify specific skills that require practice and or evaluation.



How do you integrate simulation into your program?

Medical Radiation Technologist

- Vital signs, IV initiation and therapy, portable chest X-ray with critical care patients





How do you integrate simulation into your program? cont...

Personal Support Worker

- Vital signs
- Communication skills

Diagnostic Ultrasound Technologist

- Communication skills
- Resolving of ethical dilemmas



How do you integrate simulation into your program? cont...



Massage therapy

- Vital signs, communication skills



Integration of simulation: Simulation by video conference

- At the main campus in Sudbury simulation is incorporated in the curriculum of the PN program; unfortunately, this is not available in outlying areas
- In 2007, the PN program from the outlying areas were invited to participate in several simulation sessions during theory classes via video conference



Integration of simulation: Simulation by video conference cont...

- Student had received the scenario prior to class; homework was assigned on the chief complaint to facilitate the simulation
- The mannequin was positioned to ensure proper camera views as well as the microphone intake
- Four students participated in the simulation



Integration of simulation: Simulation by video conference cont...

Positive feedback:

- Students showed extreme satisfaction and requested more sessions
- Students from outlying campuses stated that “they felt like they were actively participating in the care of the patient during the simulation”
- They felt “part of the team”



Integration of simulation: Simulation by video conference cont...

Areas of improvement

- Outlying campuses requested simulation mannequins at their campus
- Minor microphone malfunction



Integration of simulation PN & BScN Student conferences

Practical Nursing

- 3 day conference hosted at the main campus in Sudbury
- Integrate the outlying students with high fidelity simulation and ensure that all students from the PN program have the same learning opportunities.
- All second year students from the outlying areas were provided with travel and accommodations
- Shuttle was provided to and from the hotel for conference activities.



Integration of simulation PN & BScN Student conferences



- Day one

- Evening session from 1800 to 2200
- Tour of simulation lab and facilities
- Ice breaker sessions





Integration of simulation PN & BScN Student conferences

- Day two
 - Station 1: virtual IV's;
 - station 2 & 3: simulated patients using ECS and PNCI;
 - station 4: various practical skills (IM injections, sterile dressing...);
 - Supper at local restaurant faculty, dean and students.





Integration of simulation PN & BScN Student conferences





Integration of simulation PN & BScN Student conferences

- Day three
 - Breakfast
 - Myers-Briggs evaluation
 - Quest speaker
 - Conference evaluation
 - Transportation for return trip home



Integration of simulation PN & BScN Student conferences

BScN year 1 students

- 2 day conference Jan 2009 & 2010 entitled "A day in the life of a nurse"
- Initiate students to a realistic hospital environment prior to clinical placement.
- Encourage problem solving and critical thinking.
- Introduction to a multidisciplinary approach to patient care.
- Reinforce lecture content and help students process didactic information.



Integration of simulation PN & BScN Student conferences



- **Day 1**

- 0730: report, review of charts, initial assessment, charting
- 1300: admission of new patient, report received from paramedic students, assist with patient transfer
- 1330: Requesting portable chest X-ray, assisting X-tech student



Integration of simulation PN & BScN Student conferences

- Day 2
 - 0730: report, review of charts, vital signs, assessment on both patients.
 - 0900: preparation & teaching of patient for abdominal ultrasound





Integration of simulation PN & BScN Student conferences

- 0930: transfer to ultrasound dept.
- abdominal ultrasound was completed by an ultrasound tech
- Broadcasted via video conference for all students to observe.



Integration of simulation PN & BScN Student conferences

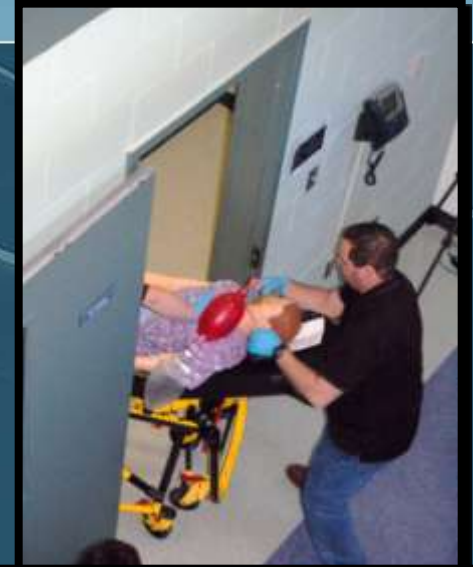
- 1100: patient rounds done; students find a VSA patient on floor at bedside.
- CPR initiated, code team activation...





Integration of simulation PN & BScN Student conferences

- **Finale of day 2**
 - Code blue simulation with health care providers that are currently practising.
 - Paramedic, RN, RT, Clinical Educator in CCP
 - Round table debriefing





Integration of simulation: Paramedic program

- The Primary Care Paramedic program in Ontario is a two year program.
- Simulation was integrated into the curriculum Oct 05 for 2nd year students.
- Jan 06 for 1st and 2nd year.



Integration of simulation: Paramedic program cont...

Laboratory classes

- Simulation is utilized for formal evaluation of all paramedic skills
- Equipment testing, IV therapy, drug administration....
- High fidelity mannequin utilized for scenario testing





Integration of simulation: Paramedic program cont...

Clinical placement rotation

- Simulation lab has become a mandatory clinical rotation site in second semester
 - 7 clinical site that students rotate, ER, Nursing Home, Ambulance 911 dispatcher center, Local EMS, Non urgent patient transfer service & simulation center.
- Emphasis placed on “good to know” information, and build on “must know”
 - Bomb injuries, working in the dark, hiding equipment so the students have the bear minimum.



How do you use this lab? cont...

- If you are a active health care provider use the simulation lab to recreate situations that happen in the **workplace**. (providing care without proper PPE...)
- Use it for **practical skills** (vital signs, IV, patient assessment...)
- Use it to **reinforce lecture content** (Chest & heart sounds, the effect of various drugs on the body...)



How do you use this lab? cont...

- Use it to improve communication skills with patients and colleagues (utilize an ECS mannequin and simulate language barriers, or simulate patients that are bold and rude towards staff or make inappropriate comments due to the treatment)
- Use it to put “care” back into patient care (make the ECS cry because the needle stick hurt, make the ECS ask for a warm tea because they are cold, have the ECS ask for a hug or to hold their hand because they are frightened before a surgery.....)



How do you use this lab? cont...

- Use it to place students in an ethical dilemma (co-worker administers wrong drug/dose, co-worker is verbally aggressive towards patients...)
- Use it as a tool for conflict resolution (with a patient, colleague, family member)
- Use it to reduce the gap between knowledge and proficiency
- Use it to introduce interdisciplinary roles



Keeping it real....

Provide believable working environments,
making it real

Examples:

- bear attack, hunting accident
- palliative care center, cards posted on walls with best wishes from loved ones, news papers, beverages at bed side...
- use props...don't limit yourself to make up, use tents, branches, clothes, old furniture... the sky is the limit



Keeping it real....

- From this:





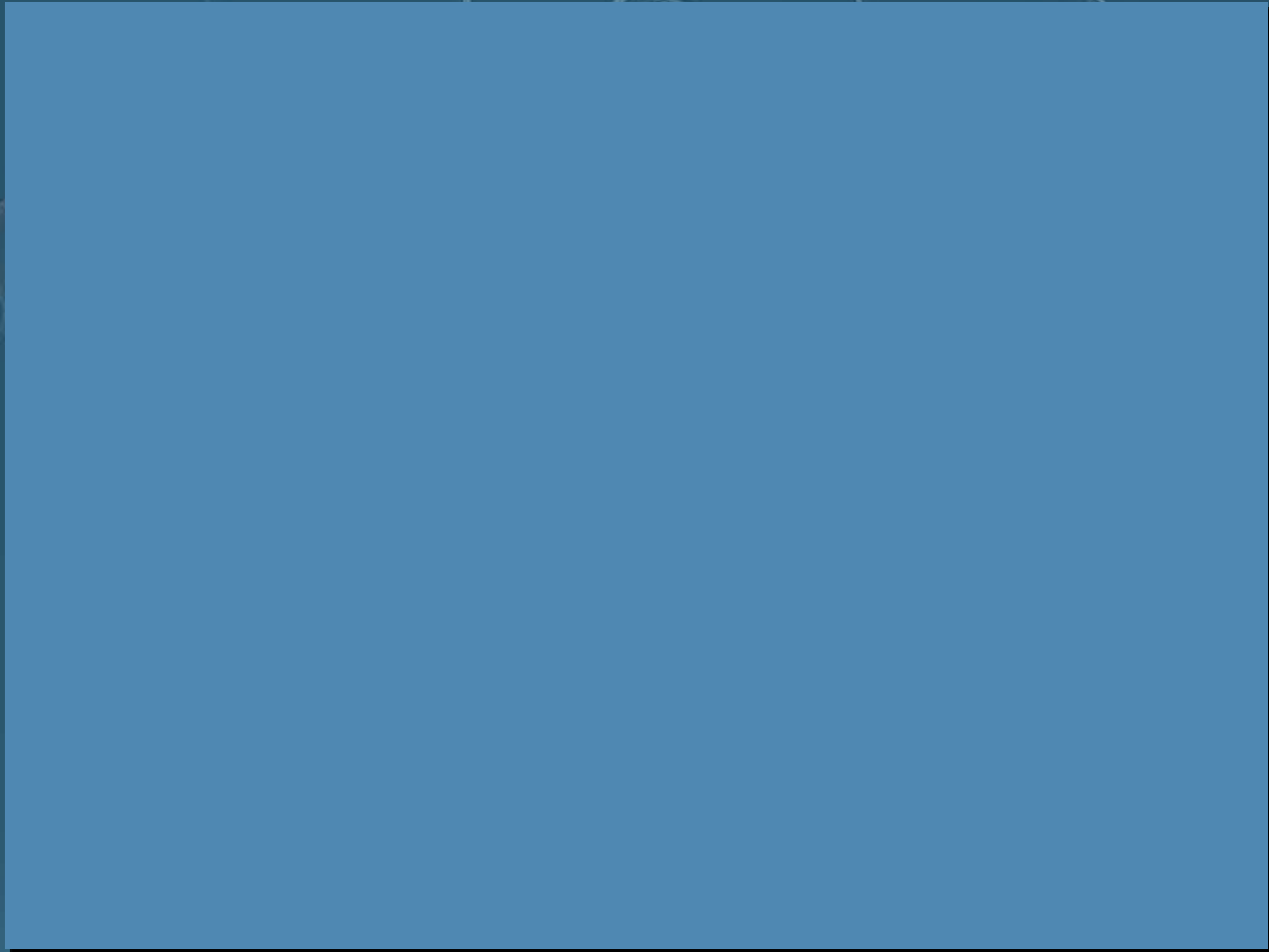
Keeping it real....

- To this;





Keeping it real....



Keeping it real....





Keeping it real....



Keeping it real....



Keeping it real....





Keeping it real....

Key elements to keeping it real...

- Champions of simulation
- Administrative support
- Interdisciplinary approach
- Faculty buy in



Champions of simulation





Student comments

- A student from the PN program stated:
- *"I took care of my first palliative care patient today and I actually felt prepared because of what we had done in the sim lab. Just wanted to say thanks and that this was cool"*





Conclusion: Mission of the simulation lab

- provide a safe and dynamic learning environment that fosters the development of critical thinking and decision making
- promote students acquisition of knowledge, skills, understanding, attitudes and values necessary to provide safe and compassionate care
- graduate capable, innovative, and highly motivated individuals who will continue to promote their individual profession.



Enjoy the lab, be creative,
innovative

The rewards are numerous.

