



Introducing a NEW simulation-based training program for KGH / HDH Emergency Room Nurses

*Are you looking to improve your skills in ER nursing care?
Have you heard about the benefits of simulation-based training?
Want to learn in a small group setting and have fun?*

**Come join your RN colleagues from the Department of
Emergency Medicine (KGH/HDH) to participate in a great
new simulation program geared towards ongoing ED RN
professional development in resuscitative care.**

Session Dates & Topics

Session 1 (Oct 28 th & Nov 18 th)	Introduction to Sim Lab, ACLS, CRM
Session 2 (Dec 2 nd & 9 th)	Approach to Chest Pain & SOB
Session 3 (Jan 13 th & 20 th)	Approach to Decreased LOC, Tachy/Brady
Session 4 (Feb 10 th & 24 th)	Review of ACLS, CRM, Resuscitation in ED

**ALL SESSIONS will be offered twice per month at the
NEW Queen's Medical School Simulation Lab (2nd floor)
from 0800hrs to 1200hrs (corner of Stuart St. & Arch St.)**

*Registration is limited to 10 nurses per session (KGH&HDH)
...so please check your schedule and sign-up ASAP if you're interested*

***To register for 1 or more sessions...
Please email Damon Dagnone (project director): damondagnone@hotmail.com***

***For more information related to program background, objectives, methods,
instructors etc.... PLEASE READ BELOW***

**ER RN High fidelity Simulation Training Course
Department of Emergency Medicine (KGH/HDH)
Proposal for 2012**

INTRODUCTION

There is growing literature supporting the integral role of simulation-based medical education in improving inter-professional team-based resuscitation skills¹. The benefits of using simulation-based training for ER RNs are multiple and center around an adult learning approach, which offers its learners deliberate practice, context-dependent and experiential learning².

Various studies have demonstrated the benefits of integrating simulation-based training with an inter-professional approach. The principles of crew resource management (CRM), which can be applied to the simulation setting, is based on the idea that improved communication and teamwork result in better outcomes, whether in aviation or health care. Multiple studies have demonstrated improved team performance and patient outcomes when high fidelity simulation training is used for inter-professional teams.³⁻⁶ Given these findings in support of simulation-based inter-professional resuscitation training, there is sadly a lack of integrated hospital-based programs that seek to bring together inter-disciplinary teams of health care workers to address this need. This oversight is due to many practical issues including scheduling conflicts, lack of financial compensation, or might result from a lack of interest or incentive to advocate for this type of training. Hence, innovative projects and educational initiatives are needed from staff and faculty champions with experience in simulation-based inter-professional resuscitation training to stimulate interest in this kind of training .

At Queen's University, the medical teaching faculty within the Department of Emergency Medicine has implemented inter-professional team training programs at the undergraduate and postgraduate training levels. Within the hospital, most simulation-based resuscitation training initiatives have targeted medical trainees

with only limited engagement or focus on nursing staff. The recent launch of The Simulation Olympics, an inter-professional simulation-based resuscitation competition held each spring (2010 onwards), has been the sole resuscitation training initiative that engages ER nursing staff in a more meaningful way. There has not, however, been a focused program for ER RN staff. This must change. The proposed ER RN simulation training program intends to focus on ER RN staff training in resuscitation and serve as the foundation for future ER staff inter-professional training initiatives.

With approved funding from the ER Nursing Education Fund and with strong administrative support, this pilot project will serve as the foundation for building a larger inter-professional simulation-based training program within our Emergency Department. This will not only strengthen the resuscitation skills of our staff, but also work towards engaging staff to seek out additional opportunities for training. Lastly, our current clinical working environment within the Emergency Department at KGH and Urgent Care Centre has become increasingly demanding over the last 4 years. This novel educational project, specifically focused on ER RN staff training, will help boost morale within our hospitals and between staff RNs and Emergency Room physicians through active engagement.

OBJECTIVES

1. Develop, implement, and evaluate a high fidelity simulation-based training course for ER staff RNs at Kingston General Hospital / Hotel Dieu Hospital.
2. Introduce ER RNs to high fidelity simulation-based resuscitation training and principles of crisis resource management principles.
3. Improve ER RN knowledge, skills, and confidence in resuscitation.
4. Increase ER RN motivation to seek out additional opportunities for continuing education related to simulation training and Emergency Medicine (Queen's Simulation Olympics team training, Senior Resuscitation Rounds, RACE team training etc.)

INTENDED FUTURE DIRECTIONS

1. Expansion of pilot project to become an annual structured series of ER RN focused sessions in resuscitation over an 8 month period (Sept-April).
2. Increased participation of ER RNs in The Simulation Olympics Competition and associated team training program.
3. Develop and implement an integrated inter-professional team-based ER staff training for ER RNs, attending ER physicians, and respiratory therapists.
4. Secure a long term funding plan that is supported by departmental and hospital-based funding sources.

METHODS

Program Design

The ER RN simulation training program pilot project is designed as a series of 4 4-hr training sessions. Each session will be held twice monthly on Friday mornings (8am to 12pm) with dedicated faculty MD and RN instructors. Active participation is expected from all participants. Content will include relevant resuscitation-based material that will be taught in a small group format in the high fidelity simulation lab at Queen's University. Session topics will include: introduction to the high fidelity simulation lab, ACLS review, introduction to crisis resource management principles, approach to cardinal symptoms (chest pain, SOB, decreased LOC, tachycardia, bradycardia etc), and team communication during resuscitation. Please see Appendix A for an outline of the ER RN training program sessions.

Participants

Participants in the program will be recruited from the Department of Emergency Medicine at KGH and the Urgent Care Centre at Hotel Dieu Hospital. All participants will be RNs from the KGH-ER or HDH-UCC. Opportunities for registration for the sessions will be on a "first come, first serve" voluntary basis. Posters and email correspondences will be sent out well in advance to all ER RNs. Registration for the sessions will be by email to Damon Dagnone (initially), then by the ER nurse managers at KGH & HDH. All participants will be encouraged to sign up for 2 or more sessions to a maximum of 4 sessions. Participants will also be encouraged to join The Simulation Olympics team training program at the completion of this pilot project.

Instructors

All MD instructors for the ER RN simulation training program will have at least 2 years experience teaching in a high fidelity simulation lab. The instructors who have agreed to participate are: Damon Dagnone (coordinator of program), Jason Bornstein (ER Attending), Andrew Hall (ER senior resident), Krista Wood (ER RN instructor "in training"), Wendy Birmingham (ER RN instructor "in training"), Mary Seatter (ER RN instructor "in training"), and Julie Hands (ER RN instructor "in

training”). Damon Dagnone will coordinate this program and serve as an instructor as part of his academic position at Queen’s University and will not receive payment for his role.

Simulation Lab Teaching Environment

All sessions will be carried out in the new Queen’s Faculty of Health Sciences high fidelity simulation lab (2nd floor) on Arch St. Sessions will be held on a bi-monthly basis starting late October 2011 and ending February 2012. All sessions will be on Friday mornings from 8am to 12pm. A dedicated simulation lab technician will be provided for each session to assist with lab setup and operation of the simulation mannequin.

Assessment of Program

Participants will be asked to fill out an anonymous questionnaire (Appendix B). The questionnaire is comprised of two sections: the first section assessing baseline characteristics and the second part evaluating participant attitudes and motivation. Participants will also be asked to complete an evaluation following the completion of the program (Appendix C). The evaluation form will ask for participants to provide comments on the highlights of the event, suggestions for improvement, and their desire to participate in similar simulation-based training sessions in the future

REFERENCES

1. Baker, C., et al. "Simulation in Interprofessional Education for Patient-Centred Collaborative Care." *Journal of advanced nursing* 64.4 (2008): 372-9. Print.
2. Lam, G., et al. "Medical Simulation in Respiratory and Critical Care Medicine." *Lung* 188.6 (2010): 445-57. Print.
3. Perkins, G. D. "Simulation in Resuscitation Training." *Resuscitation* 73.2 (2007): 202-11. Print.
4. Capella, J., et al. "Teamwork Training Improves the Clinical Care of Trauma Patients." *Journal of Surgical Education* 67.6 (2010): 439-43. Print.
5. Falcone, R. A., Jr, et al. "Multidisciplinary Pediatric Trauma Team Training using High-Fidelity Trauma Simulation." *Journal of pediatric surgery* 43.6 (2008): 1065-71. Print.
6. Hunt, E. A., et al. "Simulation: Translation to Improved Team Performance." *Anesthesiology Clinics* 25.2 (2007): 301-19. Print.

APPENDIX A**Proposed Session Dates & Topics**

	SESSION 1	SESSION 2	SESSION 3	SESSION 4
Dates	28-Oct 18-Nov	02-Dec 09-Dec	13-Jan 20-Jan	10-Feb 24-Feb
Session Topics	Intro to Sim Lab Intro to CRM ACLS review	Chest Pain SOB	Decreased LOC TACHY/BRADY	REVIEW ACLS CRM

APPENDIX B Participant Questionnaire

BASELINE characteristics

1. Please circle the areas of previous RN work experience.

Emerg Med	Anaesthesia	Family Medicine Community Emerg / Family Med
Internal Med ICU	Cardiology Respirology	Community Internal Med / ICU

2. How many hours of simulation lab training did you receive in the last 12 months?

0 hours	11-20hr	>100hrs
1-4hrs	21-50hrs	
5-10hrs	51-100hrs	

3. How many hours of inter-professional team training did you receive in the last 12 months? To qualify, sessions must have included >1 profession.

0 hours	5-10hrs	21-50hrs	>100hrs
1-4hrs	11-20hrs	51-100hrs	

4. Does your program (or unit) schedule regular simulation-based rounds specifically for resuscitation skills training?

If YES, please describe.

NO	YES	Description of session:
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5. Were you involved in caring for any cardiac arrest or RACE TEAM patients this year?

If YES, how many?

		1-5 pts	11-30
		5-10	>30 pts
NO	YES		

6. Did your participate in the Simulation Olympics competition in 2010 or 2011?

How many hours did your team practice?

NO	YES	#hrs
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7. Please circle and/or list the limitations to team practice time that related to your team. Use the back of the page if required.

Clinical responsibilities did not permit Unaware of practice sessions	IP team schedules too difficult to coordinate Coach not available to coordinate sessions Not familiar or comfortable with sim lab setting
Team members organized too late	

Participant ATTITUDES / MOTIVATION

Please rate your responses to each of the statements using the following scale.

1	2	3	4	5
strongly disagree	disagree	neutral	agree	strongly agree

I am comfortable delivering chest compressions as part of a resuscitation effort.

1	2	3	4	5
strongly disagree	disagree	neutral	agree	strongly agree

I am comfortable assisting in airway management as part of a resuscitation effort.

1	2	3	4	5
strongly disagree	disagree	neutral	agree	strongly agree

I am comfortable obtaining IV access and delivering medications during a resuscitation effort.

1	2	3	4	5
strongly disagree	disagree	neutral	agree	strongly agree

I am comfortable obtaining a cardiac rhythm and using the LIFEPAC to defibrillate, cardiovert, or pace during a resuscitation effort.

1	2	3	4	5
strongly disagree	disagree	neutral	agree	strongly agree

I am comfortable acting as the team leader in a resuscitation effort prior to MD arrival.

1	2	3	4	5
strongly disagree	disagree	neutral	agree	strongly agree

I am comfortable asking for help with patient management during a resuscitation effort.

1	2	3	4	5
strongly disagree	disagree	neutral	agree	strongly agree

I would value additional resuscitation training as part of my training in the following areas:

High fidelity medical simulation lab

1	2	3	4	5
strongly disagree	disagree	neutral	agree	strongly agree

Inter-professional team training

1	2	3	4	5
strongly disagree	disagree	neutral	agree	strongly agree

Clinical skills training (chest tubes, airway, central lines, Lifepak monitor etc)

1	2	3	4	5
strongly disagree	disagree	neutral	agree	strongly agree

APPENDIX C Evaluation Form

Please circle the most appropriate designation from the list below.

KGH ER RN

HDH-UCC RN

1. Please comment on the HIGHLIGHTS of this event.

SCENARIO choice	
SCENARIO fidelity / reality	
TEAM interactions	
PERSONAL FEEDBACK	
PRACTICE SESSIONS	

2. Please offer any SUGGESTIONS you have to make this a better event.

SCENARIO choice	
SCENARIO fidelity / reality	
TEAM interactions	
PERSONAL FEEDBACK	
PRACTICE SESSIONS	

	strongly agree	agree	neutral	disagree	strongly disagree
I enjoyed participating in this event.	1	2	3	4	5
I plan to participate in this event again next year.	1	2	3	4	5
The inter-professional component of this event was valuable.	1	2	3	4	5
I improved my skills in team-based care.	1	2	3	4	5
I am interested in additional simulation-based learning.	1	2	3	4	5
This event should be promoted for all medical, nursing, and respiratory therapy students & staff at KGH / HDH and Queen's University.	1	2	3	4	5

If you have any additional comments or suggestions...please write them on the back of this page. Thanks.

