Ontario Critical Care Clinical Practice Rounds (OC3PR): COVID-19

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Implementing Team Based Models During COVID-19: Tips and Lessons Learned

Chaired by Dr. Dave Neilipovitz Presented by Rupinder Taggar, Tracey DasGupta, and Dawna Van Boxmeer

Meeting Etiquette

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- Attendees can submit questions to Q&A in the chat function in the Zoom menu.
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Setting the Context

- Based on principles of quality, patient safety and professional standards
- Health Human Resource (HHR) Framework and strategies were developed for the COVID-19 pandemic
- Team Based Models were not developed with a vision to sustain them post pandemic
- Primary focus on critical care however there are many interdependencies with other areas across the hospital

Objectives

- 1. Provide an overview of the principles and core components of Team Based Models during COVID-19.
- Describe key roles and team development to prepare for implementation of Team Based Models.
- Share evaluation, lessons learned and team perspectives to sustain safe quality care and enhance system readiness.



This presentation is based on the Expanding Team Based Models of Care provincial guidance document (Feb 7, 2021)

Health Human Resource (HHR) Staged Response Framework

HHR Staged Response Framework

Hospital Response

Regional Response

capacity and required actions

structures)

• Provide updates on the status of critical care

Critical care patient re-distribution activated as

required (with support from Critical Care IMS

CONVENTIONAL

Potential Triggers

- < 100% 115% critical care occupancy
- Planned staffing available

CONTINGENCY

Potential Triggers

- >115% 125% critical care occupancy And/or
- Requirement of 10-15% additional nursing to support the response
 - CRISIS

Potential Triggers

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•> 125% critical care occupancy within region/hospital with significant surge of COVID-19 critical care patients

And/or

 a significant shortage of critical care nursing staff with a requirement of > 15% than baseline

- Utilize current staffing models with surge protocols including re-distribution of critical care patients (with Ontario Critical Care COVID Command Centre support) Prepare and practice team-based models • Establish thresholds/markers (i.e., # of hubs/teams per critical care unit, # of staff required and skill sets) Provide regular updates to regional leadership
 - Implement team-based models to expand critical care staffing
- Consider a reduction in scheduled activity and redeploy staff to support critical care staffing
- Notify the region/IMS that additional critical care capacity and/or HHR support may be required
- Increase # critical care beds in addition to surge protocols supported by team-based models
- Hospitals within a region take action to support stabilization of critical care capacity
- Regional leadership updates Ontario Critical Care COVID Command Centre regarding critical care capacity pressures and identifies a plan to support the index hospital and or region
- Notification of IMS structures where applicable
- Reduce scheduled activity to support skills-based staff
- Notify the region that additional critical care capacity or HHR support may be required
- Consider implementation of triage protocols

redeployment

- Multi-region response and coordination most likely required (via IMS structures where applicable)
- Seek input and direction from the Ontario Critical Care COVID Command Centre
- Contemplate redeployment of staff across institutions/regions

Ontario Critical Care COVID-19 Command Centre released the HHR Staged Response Framework to guide hospitals, regions and the province to ensure a coordinated response during future waves of COVID activity.

HHR Planning Assumptions Appendix A

Health Human Resource Key Principles





- Patient and staff safety will remain a top priority
- Ensure roles and responsibilities are clear for team members especially as teams expand
- Maintain sufficient levels of expertise in specialty areas
- Strategies to support staff wellness must be integrated in every stage of response
- Mechanisms are in place to support ongoing evaluation while models are in operation to ensure quality, patient and staff safety are top priority

Health Human Resource Planning

This model supports readiness to respond during Contingency and Crisis Phases.



Preparing for a Crisis Response: Expanding the Pipeline



^{03/04/2021} See Appendix B for more internal and external pipeline examples

Acute Care, enabling staff release for Critical Care

• "Helper" role in either setting

Standardized Skills Assessment Tool (ABCD)

- Skills Assessment Tool is distributed to nurses, respiratory therapists, physiotherapists, occupational therapists, clinical dietitians, and anesthesia assistants
- Categorizes nurses and health professions by level of skill (ABCD) to support redeployment and additional education

А	В	С	D				
Full Scope Critical Care	Critical Care Training with Limited	Non Critical Care Staff in Critical Care Setting	Acute Care Staff				
Able to work independently in a Critical	Experience	Able to support in a team-based model in a Critical Care	Able to support in a team-based model in an Acute Care				
Care environment (Level 3 Patients)	Able to support in a partnered model in a	environment (Level 2 or 3) OR able to work independently in an	environment				
	Critical Care environment (level 3) or	Acute Care environment					
	independently work in with Level 2 Patients						
Key Competencies	Key Competencies	Key Competencies	Key Competencies				
□ Invasive ventilator care and	□ Arterial Line care and maintenance	□ Head-to-toe Systems-based Assessment – neuro, cardio,	Turning and Positioning				
maintenance	Cordis/PSI care and maintenance	Peripheral IV (PIV) care and maintenance – Insertion,	Hygiene care				
Cardiac Pacing	Cardiac monitoring and rhythm	medication admin, trouble shooting ,etc.	Toileting and incontinence care				
Invasive advanced physiological	interruption	Drainage tube care and maintenance – Hemovac,	Nutrition care (including feeding patients with				
monitoring	Multiple Continuous IV vasoactive	Jackson-Pratt, etc.	dysphagia)				
□ Rapid sequence intubation –	Infusion	Urinary catheter insertion, care and maintenance – ex.	ROM and mobilization				
perform or assist	Epidural Management and	in-dwelling, intermittent and suprapubic catheters	Braden Scale Risk Assessment				
Targeted temperature	Maintenance	Continuous Bladder Irrigation	Falls Risk Assessment				
management	□ Inserting small bore Nasogastric (NG)	Bowel care and maintenance	CAM Assessment				
Neuromuscular blockade	Tube	PEG tube/ feeding tube care and maintenance	Basic IV care and maintenance – i.e. bag change,				
Critical Care Full Systems	Invasive basic physiological	Pain management and symptom management	monitoring site, tube change				
Assessment	monitoring – invasive hemodynamics	Basic Skin and Wound Care – Aseptic wound care,	Basic urinary catheter care and maintenance				
	Optiflow / BiPAP	Complex wound care – e.g VACs, , complex pressure	Vital signs – BP, Pulse, SPO2, Temp., and Respiration				
		injuries).	rate, etc.				
		Continuous IV Infusion (NS, Heparin, insulin, etc.) with	Admin of oxygen				
		intermittent medication admin	Medication administration - Oral				
		Large bore NG tube insertion, care and maintenance					
		Central Line care and maintenance					
		Care and maintenance of an established Tracheostomy					
		(including suctioning)					
		Medications Administration .					
		Patient Controlled Analgesia					

Staffing Progression from Contingency to Crisis Phase







STEP 1: Determine Staff Numbers Required to Support Progression from Conventional to Crisis Stage

STEP 2: Getting the "non Critical Care" Team Ready

STEP 3: Moving into Teams (Critical Care + non Critical Care Staff)

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London Health Sciences Centre example, Staffing Progression Model

Staffing Progression Model Example – London Health Sciences Centre

Conventional UH ICU								
UH	10	100% Occupancy = 39 Beds						
	Day	Day Night		Total/24h				
RN	33	33	132	66				
non ICU RN	0	0 0		0				
Contingency UH ICU								
UH		115% Beds = 45 beds						
	Day	Night	FTE	Total/24h				
RN	33	33	132	66				
non ICU RN	5	5	10					
Crisis UH ICU								
UH	12	125% Occupancy = 49 Beds						
	Day	Night	FTE	Total/24h				
RN	33	33	132	66				
non ICU RN	8 8 32 16			16				

See Appendix C for Detail

Sharing an Example from Sunnybrook Health Sciences Centre

Team Based Models have been implemented in both acute care and critical care to respond to increasing critical care nursing gaps.



Α	В	С	D
Experienced	Critical Care	Non Critical	Acute Care
Full Scope	Training Limited	Care staff in	Staff
Critical Care	Experience	Critical Care	
Nurse			

- New standardized roles to support Team Based Models:
 - Alternate Care Provider (ACP) Acute Care
 - o Alternate Care Provider (ACP) Critical Care
- Essential to consider both patient acuity and nursing experience
- Daily connection and regular debriefs supports staff wellness
- Takes time to develop trust, role clarity and relationships
- ACPs are now pipeline for critical care recruitment

Note: Role descriptions provided in Guidance Document

Team Based Learning

Simulation Training



https://criticalcarelearning.ca

Educating Teams for Success During Wave 2 COVID-19 Simulation-Based Education for Alternate Models of Care

Sunnybrook Canadian Simulation Centre



Contact: agnes.ryzynski@sunnybrook.ca.



Acuity Based Staffing

Acuity and dependency data supports decision making and evaluation

Acute Care



• Daily data is used to prioritize care needs and staff alignment

Critical Care



- Describes patient acuity
- Data supports Team Based Model Hubs

Important Considerations for Expanding Team Based Models



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Lessons Learned

	Communication	 Seamless, clear and targeted communication including 5W's + How 				
	Coordinated Redeployment and Return	 Coordinated communication with sending and receiving team 				
	Integration and Role Clarity	 Unit welcome and orientation enhances integration 				
	Psychological Safety and Wellness	 Recognizing redeployment is a significant and impactful life experience 				
	Shared Iterative Design	 Listening, learning, and ongoing improvement cycles 				

Introduction....people knowing who I am... became like the butterfly effect... done from the beginning. Envision the big picture that during a pandemic, everyone is contributing a part in working together. Each of us acts "with the right attitude to do what needs to be done." Approaching the role with a sense that it's possible to "learn something new and that "[you] can adapt, thrive, and change."

The process is built on people.

When transferring patients to critical care seemed scary, critical care seems more approachable now"

Trust and relationships take time to develop. With trust it gets better.

Looking Forward

- Role of critical care nurses has become heightened through the COVID-19 Pandemic
- Team Based Models is one strategy that can temporarily support the gap in nursing capacity
- Healthcare leaders are urged to engage in HHR planning to create a sustainable, flexible nursing workforce for the future
- Our "Can do" attitude will keep the momentum

We would like to recognize and thank our teams for their passion, efforts, dedication and inspiration.

*Supplement: Guidance Document for Healthcare Organizations: Access at: <u>https://drive.google.com/drive/folders/1vN4d2f3suTc2pxa_qQ9DvvLfueZ2mR8Z?usp=sharing</u>

Thank you for joining us today

Feedback? Suggestions for the next topic?

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The First Anniversary of the COVID-19 Pandemic: An Invitation to Pause, Reflect and Remember

Questions? info@

info@ccso.ca



APPENDICES

Appendix A: HHR Planning Assumptions

- 1. A staged approach will ensure an integrated and coordinated provincial HHR response
- 2. Planning within regions* will ensure staged response is relevant and applicable within each geographic area
- 3. To inform each stage, hospitals and region will monitor triggers that include % critical care occupancy, patient acuity (e.g. NEMS), staffing capacity (determined by both % variation from incremental baseline of critical care staff), and conduct self-assessments
- 4. Nursing and other health disciplines are in-scope recognizing that there is an interdepency with the physician coverage model under development
- 5. The HHR framework will focus on an assessment of critical care HHR with key consideration for other variables that will inform a hospital and regional response such as supplies, equipment, technology and space requirements
- 6. Staff training will be aligned to the Canadian Standards for Critical Care Nursing Practice+
- 7. It is not realistic or appropriate to reduce <u>all</u> scheduled clinical activity. Some scheduled activity will continue and be balanced against critical care bed and HHR capacity requirements
- 8. Extreme COVID-19 surges may require a temporary net new increase in the number of critical care beds

*Regions can be self-identified in order to define how to action critical care HHR strategies for each of the five Ontario Health geographical areas +<u>https://caccn.ca/wp-content/uploads/2019/05/STCACCN-2017-Standards-5th-Ed.pdf</u> **Appendix B: Maximizing Internal and External Pipelines: Examples**

What internal hospital, regional and provincial levers/strategies could be implemented to expand Team Based Models?

nternal Hospital	 Internal Pipeline Inventory and up skilling of all clinically trained/non-bedside staff to fill defined needs and roles (i.e. Clinical Informatics, Professional Practice, etc.) Nurses (RNs/RPNs) in Resource Teams, ambulatory care, and settings such as transitional care, rehab and palliative care, up skilled to support Acute Care Team based models in acute care to release nurses to assume ICU Extender role Non-hospital community physicians/specialists to support all adjunct clinical work – vaccination, COVID testing, ambulatory services, etc. (could they assume roles in the ED to shift ED physicians to Critical Care) Assistance from hospital volunteers Maximize part time/casual staff (to ICU or backfill to send staff to ICU). Optimize teams in all L3, L2 for hospitals in moderate surge or hot spots Utilize skills in CCU/Cardiology/Stroke to create capacity in ICUs by decanting select cardiac/stroke patients Transition chronic ventilated patients home, with expanded community resources.
Regional & Provincial	 External Pipeline – Clinical Externs Broaden Extern Program to include senior level health disciplines students and medical residents Enable shared Mentor roles between facilities Rapid training of ICU externs or new graduate nurses (convert PT to FT) External Pipeline – Regional Deployment: Regional Critical Care Response Teams – deployable across the province Health Force Ontario campaign to identify short-assignment critical care nurses for deployment Recruit retired health care providers in all disciplines Recruit retired health care providers in all disciplines Recruitment of health care professionals working in educational institutions, correctional facilities, physicians offices, Family Health Teams, Community providers, military, private industry Critical Care paramedics redeployed to hospitals Consider recruitment of non-traditional regulated roles (dental hygienists) who could perform some tasks Recruitment of community providers (Primary Care physician, NPs, physiotherapists and nurses) to hospitals and LTC Flexibility to move staff between care settings (LTC to LTC; hospital to hospital); and between regions High school students to perform specific tasks under the direction of health care professionals
	 Red Cross resources for entrance screening Internationally trained health care providers capable of working in modified or monitored clinical role

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Staffing Progression Model Example – London Health Sciences Centre (Appendix C)

Phase A UH ICU			Phase B UH ICU							Phase C UH ICU								
UH	39	Beds = 100)% Occupa	ncy	UH 45 beds = 115% Beds					UH 49 Beds = 125% Occupancy								
	Day	Night	FTE	Total/24h		Day	Night	FTE	Total/24h				Day	Night	FTE	Total/24h		
RN	33	33	132	66	RN	33	33	132	66			RN	33	33	132	66		
non ICU RN	0	0	0	0	non ICU RN	5	5	20	10	10 increm	ental*	non ICU RN	8	8	32	16	16 increm	ental*
Charge Nurse	2	2	8	4	Charge Nurse	2	2	8	4			Charge Nurse	2	2	8	4		
CCOT RN	1	1	4	2	CCOT RN	1	1	4	2			CCOT RN	1	1	4	2		
CNS	1	0	1	1	CNS	1	0	1	1			CNS	1	0	1	1		
PSW	2	2	8	4	PSW	3	3	12	6	2 increme	ntal*	PSW (or runner)	3	3	12	6	2 increme	ntal*
Unit Clerk	2	1	6	3	Unit Clerk	2	1	6	3			Unit Clerk	2	1	6	3		
RRT	7	6	26	13	RRT	8	7	30	15	2 increme	ntal*	RRT	9	8	34	17	4 increme	ntal*
non exp. RRT	0	0	0	0	non exp. RRT	0	0	0	0			non exp. RRT			0	0	_	
Senior RRT	1	0	1	1	Senior RRT	1	0	1	1			Senior RRT	1	0	1	1		
Inventory Clerk	1	0	1	1	Inventory Clerk	1	0	1	1			Inventory Clerk	1	0	1	1		
Staffing Clerk	1	0	1	1	Staffing Clerk	1	0	1	1			Staffing Clerk	1	0	1	1	consider	
(1 in central not					(1 in central not							(1 in central not					increase	
included)					included)							included)						
Leaders	4.5	0	4.5	4.5	Leaders	4.5	0	4.5	4.5			Leaders	4.5	0	4.5	4.5		
					* from baseline f	or 24h						* from baseline f	or 24h					

- Critical care staff used
- .8 RN per patient or 1.2 patient per RN
- 6 patients per RRT 03/04/2021

- Staffing augmented with non critical care staff (e.g. Level 2 RN, PACU, ACP etc.)
- Same ratio for RN:Pt and RRT:Pt

- Staffing augmented with non critical care staff
- Same ratio for RN:Pt and RRT:Pt
- Continue to 200%

Important Considerations for Expanding Team Based Models (Appendix D)

Domain	Summary	Tools and Resources Examples				
Patient Care Needs	Define patient needs that can be met by skills of alternate care providers Determine Staff Ratios (baseline number of Critical Care RN's, Patient to Nurse ratio, ratio of CCRN to non-CCRN, role of non nurse)	Critical Care Multi- Professional Role Matrix				
Role Clarity	Create defined roles with clear responsibilities and expectations, using Patient Skill Categories where possible	 Role Examples Critical Care Nurse (Patient Skill Levels: A, B, C) Alternate Care Provider, Safety Officer, Extern, Patient Helper (Patient Skill Levels C,D) 				
Professional Responsibility	Ensure redeployed health professionals have understanding of regulatory guidance for scope of practice and standards of care during COVID-19	e.g. CNO COVID-19 Practice Resources https://www.cno.org/en/trending-topics/covid-19- practice-resources/				
Orientation/ Skill Development	Provide streamlined education ensuring integration of safety processes, including method for follow-up in new clinical context	COVID and Critical Care Learning, Simulation				
Working with Unregulated staff	Ensure clinical teams understand their responsibilities when working with unregulated care providers, including delegation	e.g. CNO Practice Guideline: Working with Unregulated Care Providers <u>https://www.cno.org/globalassets/docs/prac/41014_workingucp.pdf</u>				
Team Based Processes	Provide local team training and standardized tools to support integration of new roles: communication strategies, safety processes and debriefing	e.g. SBAR, daily team huddles, intentional rounding, and safety checks				
Leader Roles	Strategies to welcome and integrate new team members: identification of ongoing learning needs, gaps, safety concerns, team wellness	Team check-ins, leader rounding, communication strategy				
Evaluation3/04/2021	Consistent evaluation of Pandemic Staffing Plan and Strategy with regular review of patient needs, team-based model processes	Monitor patient acuity, quality, safety, and workload, ongoing team feedback				