DCCM COVID-19 PANDEMIC PHYSICIAN SURGE PLAN SUMMARY

Overview

The start of Block 11 marks the official launch of our DCCM surge plan. While it is difficult to perfectly forecast our ICU patient volumes during the COVID-19 pandemic, we are preparing to increase from our current census of 66 general system ICU patients across the Calgary Zone to approximately 300 patients in the next few weeks. We are preparing for a worst-case scenario were patient volumes could increase to our full capacity of approximately 550 patients by the end of April. To meet our patient care needs, a comprehensive ICU surge plan has been developed throughout different levels of surge. Each level of anticipated surge will require increasing numbers of ICU beds and physicians as proposed below.

Surge Beds in Calgary Zone

	PRE-SURGE	STAGE 1	STAGE 2	STAGE 3	STAGE 4A	STAGE 4B	STAGE 4C	STAGE 4D
Total Beds	66	87	162	261	327	374	460	541
Total coverage/24 hours								
ICU MD Team Leads	10	13	18	18	23	21	26	27
NON ICU MD Team Leads	0	0	0	4	6	9	14	18
Residents	16	14	18	20	24	27	29	33
Anesthesia	0	2	9	11	19	16	20	20
Volunteer MDs	0	0	2	8	12	18	26	32
ICU Fellows	4	4	4	1	1	0	0	0
Nurse Practitioners	2	2	4	4	4	4	4	4
BSPs	1	1	1	1	2	2	3	3
# ICU MDs Required - Current Call Model	7	9	12	14	17	19	19	20
# ICU MDs Required - Shift (4/3 or 3/3/day)	-	17	22	25	29	31	35	37
Total # Residents Required	16	32	32	32	39	42	45	52

Tiered Surge Plan and Surge Teams Concept

A responsive, site-specific, and tiered surge plan to expand ICU beds as needed at each site has been developed, factoring in the nuances of human and physical resources available locally within the Calgary Zone. Accordingly, each site will have differing capacity and will also escalate to different levels of surge at different numbers of patients.

In order to expand our capacity safely, a team-based staffing model has been developed to care for all patients across all sites. Surge teams are comprised of a team lead (ICU attending physician or delegate) and 2 team members (some combination of rotating residents, ICU fellows, recruited non-ICU physicians, anesthesiologists, BSPs and nurse practitioners).

One of the earliest surge teams for each site to deploy will be a team comprised of an ICU attending physician and 2 staff anesthesiologists. Anesthesia has agreed to provide 2 anesthesiology attending physicians to assist with coverage at all sites 24/7. This team will function as the site 'Response' team.

Anesthesiologists will have 3 roles within the Response team:
1. Work with the Response ICU attending physician team lead to care for a relatively smaller team of patients;
2. Attend to new consults, Code 66 and Code Blue patients together with the Response team ICU attending physician. If needed, the 2 anesthesiologists will transport the patients to the OR (or ICU) to intubate, resuscitate and insert any necessary lines on the patient and;
3. Help to perform procedures for all other patients on the other teams at the site.

This provides us the flexibility to recruit physicians to other teams who do not necessarily have the skill set to independently perform procedures, and allows team leads to care for a larger number of patients with relatively less overall support.

Recruited non-ICU physicians who are assisting with our surge plan are being asked to provide daytime coverage, preferably over a 7-day period (Friday-Friday). However, scheduling will need to be flexible to meet their availability. We are doing our best to recruit sufficient numbers of physicians to allow us to adequately meet our surge needs.

ICU fellows will continue to perform their usual roles during early phases of surge. At later stages of surge, fellows with independent practice licenses will assume responsibility for their own teams, receiving guidance on an as needed basis from an ICU attending physician for more challenging cases or patient management decisions.

We have also adapted our rotating resident model of care to a shift-based model of care delivery to meet the increased demands of the pandemic. This shift-based schedule will start with Block 11. Between rotating residents and recruited non-ICU physician support, we will attempt to provide 2 team members for every team in the daytime, even during later stages of surge. Night-time coverage will be provided by in-house teams comprised of resident learners, anesthesiologists and outreach MDs supported by intensive care physicians. The decision regarding home call vs in-house call coverage for ICU attending physicians, as well as the timing of transition from our traditional call model to a shift-based model of care delivery by ICU attending physicians, will remain a site based decision. This decision will be made by the ICU site medical director, depending on patient volumes and acuity.

Currently, each team has been tentatively set to care for a maximum of 16-20 patients. However, the geographical location of patients and the composition of the team members will influence this number. If we end up surging into higher numbers of patients, the cap on number of patients per team will likely need to be revisited.

Surge Deployment Process (Figure 1)

Given the complexity of coordination that is required by the surge model, a Surge Activation Committee has been created to oversee the surge process (recruitment, education and activation of surge teams). There will be an ICU Surge physician on call 24/7 to assist with team deployment. This physician will be listed in ROCA (effective immediately).

The process for accessing surge teams to help in the units is detailed in the attached Figure 1: Surge Activation Pathway.

If there are concerns regarding availability of a rotating resident, ICU fellow, BSP or outreach physician - please contact the appropriate administrative assistant outlined on the attached document. If you require surge team deployment due to capacity issues or require the replacement of an attending ICU physician (ie. Due to illness or isolation), please contact the ICU surge physician on call.

We will be presenting the DCCM surge process in detail at this week's DCCM COVID Town Hall. In the meantime if you have any questions, please contact me directly.

Sincerely,

Jason on behalf of the DCCM Medical Executive

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