

CANADIAN ASSOCIATION OF EMERGENCY PHYSICIANS

# COVID-19

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## Surge Capacity and the Canadian Emergency Department

### For Immediate Release

**Ottawa, ON: March 24, 2020**

The Covid-19 pandemic has rightly called into question the ability of Canadian emergency departments – and the healthcare system as a whole – to handle any potential large surge of patients presenting to our doors.

Even before this pandemic, Canadian emergency patients regularly saw the effects of our crowded hospitals. They waited in the waiting room, on ambulance stretchers, and in our hallways, due to an inability to flow admitted patients from the emergency department to the in-patient wards and ICUs.

Mathematical modelling suggests that, for safety and to provide some capacity for a surge, a hospital's occupancy rate should be 85% but in Canada, that number routinely reaches and exceeds 100%.

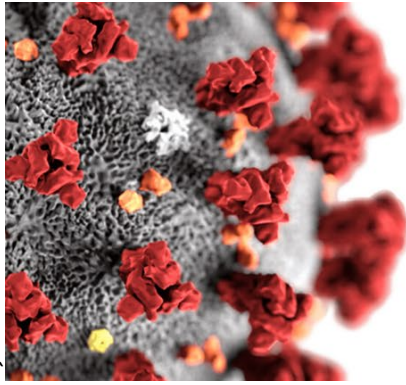
Canada has one of the lowest rates of bed availability in the western industrialized world. The OECD average is 4.8 beds per 1,000 population; Canada has 1.9 beds per 1,000 (2018). And 15% of those acute care hospital beds in Canada are occupied by alternate level of care patients (ALC). These are patients who no longer need to be in an acute care hospital but who cannot be discharged because of inadequate Home Care and/or lack of access to a rehabilitation or Long-Term Care bed.

The crowded emergency department is therefore a reflection of a crowded hospital and inadequate community resources and it is at the hospital and community level that surge capacity must be found.

Though media and government attention is currently focused on Covid-19, the daily business of providing routine emergency care must continue and we must ensure that our emergency departments are able to satisfy both demands -the pandemic and the daily routine of cardiac and trauma care, mental health crises and substance abuse.

The reduction in many community and ambulatory hospital services directed at mental health and home care for the elderly and the disabled may lead to an increased demand for emergency services. Government and policy leaders must be mindful of any potential negative health effects with their efforts at containment.

International experience suggests, of Canadians who contract COVID, we can expect: 10% will require general hospital admission, 5% will require ICU care and 3% will require mechanical ventilation.



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“Flattening the curve” will spread out the demand for these healthcare resources and facilitate the hospital’s capacity to manage.

In the setting of a pandemic, the targets for surge capacity and institutional capability should be, at minimum, 20% beyond usual capacity. This can be achieved by cancellation of elective surgeries and procedures, aggressive discharge policies and the transfer of ALC patients to alternative settings, such as hotels and community centers.

This has begun to happen in several provinces and regions and has demonstrated a large reduction in hospital bed occupancy. We acknowledge and thank those who have already taken this action for their leadership.

For those centers that have yet to act, we urge immediate action to increase bed availability.

We do not yet know what lies ahead of us. With a major pandemic, “contingency care” may be required which represents 100% of the usual capacity or twice as many ICU beds. This will require the use of alternate treatment areas within the hospital including the operating theatres, post anesthetic recovery rooms and clinic areas. At this point, regional planning and the use of regional resources become necessary. The availability of ventilators becomes a key factor when such a major contingency is required. In a national “crisis”, communities will require greater than 200% usual capacity and three times the number of the usual ICU beds. The use of national stockpiles under federal control and the use of military resources will most likely be required.

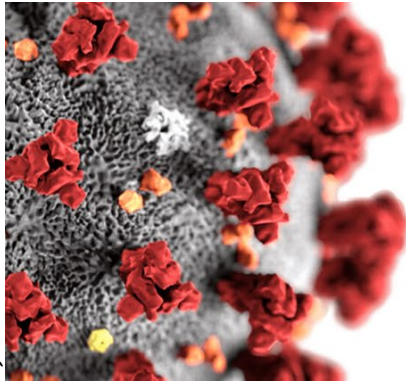
We are not yet at this point but we must be prepared.

In our considered view, the time for serious, definitive and articulated plans for surge capacity is now.

We have already seen the massive efforts that are necessary because of our already existing overcrowding and lack of a “buffer” that the ideal 85% occupancy would have mitigated. It is important to acknowledge and remember that, after this pandemic is over, we cannot afford to go back to “business as usual.”

## **The emergency department response to surge:**

The American College of Emergency Physicians has defined surge capacity as “a measurable representation of ability to manage a sudden influx of patients. It is dependent on a well-functioning incident management system and the variables of space, supplies, staff and any special considerations”.



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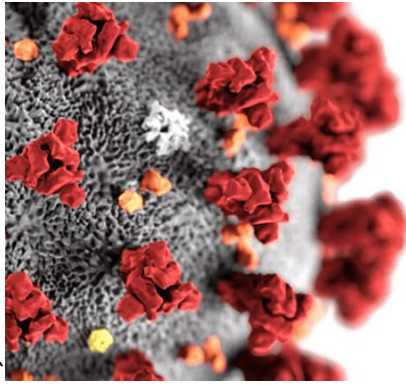
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Our Australian colleagues have identified several key components to meaningful surge management which are highly relevant to the Canadian emergency department context:

1. **Recognizing Surge:** Recognizing surge is the key to a prompt response. ED surge is a significant increase in the demands placed on an ED, given the normal capacity within which an ED can reasonably maintain standards of care. The surge may be reflected in rate of patient presentations, waiting times, patients queued, and ambulance diversions.
2. **Initiating Action:** Initial strategies must be initiated from the ED. In the Canadian context, there should be no hesitation in calling a “Code Orange”.
3. **Maintaining Patient Flow:** There is a need to ensure unidirectional flow through the system and to avoid bottlenecks where possible. In particular, decanting ED patients—sending the “walking wounded” to another supervised part of the acute care area—may decompress the treatment area.
4. **Setting Clinical Goals:** Notification of a surge in demand should prompt immediate review of staff work practices in anticipation of increased workloads. At issue is not that they work faster or harder than normal, but that they work to a different goal. In these circumstances the clinical goal shifts from individual patient satisfaction to doing “the most for the most.” This does not obligate a change in the standard of care but does imply a change in the standard of service.
5. **Deploying a Surge Team for Advance Triage:** Triage is fundamental to the efficient and effective management of multiple patients. Routine triage may be maladapted to ED needs in times of surge. Passive reception of patients at triage denies the ED the opportunity to control patient flow before it converges on the waiting room, invites contamination of the premises from patients with transported hazards, and delays initial clinical decision-making. Loss of crowd control in surge has been known to swamp a hospital within minutes.
6. **Providing Clinical Care:** Emergency physicians typically focus on finding the pathology, but the demands of surge force the ED to find the “unmade” decision. Surge in demand should prompt clinical rounds of the ED to expose unmade decisions. In a small ED, this is easily organized, but in the large ED, taking all clinicians from their clinical duties to attend these rounds may be counterproductive, and different approaches may be necessary. Senior staff should regularly review patients under their care to ensure that timely decisions are made.
7. **Using External and Ancillary Personnel:** Surge situations are characterized more by resource maldistribution than by absence. In those circumstances, planning should include a “corral point” for arriving staff, and a buddy system that partners non-ED staff (medical, nursing, clerical) to work with existing ED staff or supervisors. Medical and nursing students are a source of additional



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workforce and may assist with minor interventions (IVs, pathology specimen delivery) or serve as message bearers or scribes. Similarly, allied health staff are often neglected in surge planning, but may be able to fill a variety of valuable roles.

## Furthermore, for the Canadian emergency physician:

- 1) It is imperative during the Covid-19 pandemic that the emergency department be well-represented at the Hospital Board and Regional Health Authority level.
- 2) Where available, an emergency physician trained in Disaster Preparedness should be utilized.
- 3) As a department, emergency physicians should work to reduce unnecessary admissions. Nearly 10% of hospital admissions last less than 24 hours and 30% lasts less than 72 hours. Homecare supports and alternative care options should remain available to avoid unnecessary or 'soft' admissions.
- 4) Non-urgent care should be diverted, where possible, to urgent care centers and alternate sites within the hospital.
- 5) Liaison with primary care colleagues to promote greater access to primary care during off-hours and greater medical support for the elderly in the community
- 6) Canadian emergency physicians should recognize their important role in identification of surge and rapid deployment of necessary resources. There should be no fear of calling for a "Code Orange": or "Overcapacity Protocol" within a given institution.

Emergency Department Surge Capacity: Recommendations of the Australasian Surge Strategy Working Group: <https://onlinelibrary.wiley.com/doi/pdf/10.1111/j.1553-2712.2009.00501.x>

Surge capacity principles: care of the critically ill and injured during pandemics and disasters: CHEST consensus statement. *Chest*. 2014 Oct;146(4 Suppl):e1S-e16S. doi: 10.1378/chest.14-0733

Health Care System Surge Capacity Recognition, Preparedness, and Response; ACEP Policy Statement (2017); <https://www.acep.org/globalassets/new-pdfs/policy-statements/health-care-system-surge-capacity-rec-preparedness-response.pdf>

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