**Ontario’s Critical Care Ventilator Stockpile: COVID-19 Pandemic Process Addendum**

This document is an addendum to the *Ontario Critical Care Ventilator Stockpile Guidance Document* (September 2019) produced by Critical Care Services Ontario (CCSO).

Key Messages:

- Ontario’s provincial ventilator stockpile distribution was determined to align with LHIN boundaries in 2009. For anticipated increasing requests and use of ventilators from the stockpile as a result of the COVID-19 pandemic, the LHIN geographies and current host hospitals will continue to be used for distribution decisions as resources are available at a local level. The situation may arise when escalation threshold levels are reached and decisions to move ventilators outside current distribution patterns or to other host sites may be made. Decisions of this nature will be escalated and reviewed by the Provincial Critical Care Command Centre.

- As is consistent with critical care surge principles, all hospitals requesting ventilators from the Provincial Ventilator Stockpile must first prioritize the use of any ventilators in their hospital. Additional ventilator resources should be considered from outside of critical care units (i.e., ventilators in PACU, ER, transport vents, possibly anaesthetic gas machines (AGMs- if planned for inclusion in hospital’s pandemic plan) prior to initiating a local /regional level or a provincial level request for resources from the provincial stockpile. Any ventilators within a hospital’s current fleet, inside and outside the critical care unit, should be identified and put into service before accessing ventilators from the provincial stockpile.

- All requests from hospitals for provincial stockpile ventilators must be facilitated through CritiCall Ontario at 1-800-668-4357.

- All hospitals, including host hospitals, must follow the same process to access resources from the Provincial Ventilator Stockpile.
  - This is to ensure that an up-to-date ventilator inventory is maintained and critical care resources are sustained across the province.

- Escalation:
  - CCSO will monitor the deployment of stockpile ventilators as deployment occurs and will provide regular updates to Critical Care Leads and the Provincial Critical Care COVID-19 Command Centre (PCCCo19CC).
  - When approaching a threshold of 20% of the stockpile fleet at a host site or provincially, the PCCCo19CC and the Critical Care Leads will contribute their situational awareness to determine additional ventilator deployment from host sites and/or movement of ventilators across host sites.
  - Requests for ventilators from hospitals and escalation calls will continue to be facilitated through CritiCall Ontario.
Procedure for Requesting a Ventilator from the Provincial Stockpile: Pandemic Response

Step 1: Requesting Hospital is approaching their maximum ventilator capacity and has considered all internal resources/capacity.

Step 2: Requesting Hospital CEO/Senior Delegate notified CritiCall 1-800-668-4357

Step 3: CritiCall facilitates teleconferences between Critical Care Lead (or Delegate) and Requesting Hospital CEO/Senior Delegate.

Requesting Hospital CEO / Senior Delegate should have:
1) Up-to-date information regarding the situation that led to the ventilator request
2) Information on the number and type(s) of ventilator(s) being requested.
The Critical Care Lead (or Delegate) will:
1) Assess the request and need
2) Assess the supply of ventilators within the hospital
3) Review the status of the stockpile (informed by daily inventory report)

Major Surge Escalation Process:
CCSO will monitor deployment of stockpile ventilators as deployment occurs and will provide regular updates to Critical Care Leads and the Provincial Critical Care COVID-19 Command Centre (PCCCo19CC).

When a threshold of 70% of the stockpile fleet remains at a host site or provincially, the PCCCo19CC and the Critical Care Leads, contributing their situational awareness, will determine additional ventilator deployment from host sites, or movement of ventilators across host sites.

Requests for ventilators from hospitals and escalation calls will continue to be facilitated through CritiCall Ontario.

End of Process

Do not proceed

End of Process

Critical Care Lead determines need and approves request or suggests alternatives.

Proceed

Step 4: CritiCall Ontario to connect the Host Hospital to the call to assess the inventory available and the ventilators that can be released.

Step 4b: Escalation to the neighbouring LHIN or the Provincial Critical Care COVID-19 Command Centre. Call will be facilitated through CritiCall Ontario and with the Critical Care Lead involvement in decision making

Ventilators Available

Yes

Ventilators Available

No

End of Process. Provincial Critical Care COVID-19 Command Centre to provide direction on next steps.

Step 5: Critical Care Lead approves ventilator(s) release. Host Hospital provides ventilator model and asset tag information to requesting hospital

Requesting Hospital completes and submits the Ventilator Allocation Sign-Back Agreement

Step 6: Requesting hospital arranges for transport of the ventilator(s). List of possible transport providers provided in the pandemic process addendum

End of Process
Additional Information for Requesting a Ventilator from the Provincial Stockpile

**Step 1:** Before a requesting hospital initiates a request for additional ventilator(s) from the provincial stockpile, the hospital is required to have engaged in the following:

- Explored all available internal ventilator resources to support ventilated patients including access to transport vents or anesthesia gas machines.
- Leveraged any donated ventilators from community partners (colleges, universities, private surgery practices, etc.)
- If all internal resources have been considered and the need for additional ventilators still exists, the requesting hospital CEO/senior delegate should contact CritiCall Ontario at 1-800-668-4357 and follow the ventilator request process outlined above.

**Step 3:** Requesting hospitals should have information on the type of ventilator being requested from the stockpile. Not all ventilator types may be available in all areas of the province. Models included in the ventilator stockpile are:

<table>
<thead>
<tr>
<th>Provincial Stockpile Ventilator Models</th>
</tr>
</thead>
<tbody>
<tr>
<td>PB 840 Ventilator</td>
</tr>
<tr>
<td>Avea Ventilator</td>
</tr>
<tr>
<td>Evita XL Ventilator</td>
</tr>
<tr>
<td>Bella Vista Ventilator</td>
</tr>
<tr>
<td>HT 50 Transport Ventilator</td>
</tr>
<tr>
<td>Servo-n Ventilator (Neonatal)</td>
</tr>
</tbody>
</table>

**Step 5:** Requesting hospitals must submit the *Ontario Ventilator Stockpile Allocation Sign-Back Agreement for Requesting Hospitals.*

- A copy of this form is included in the appendix for reference
- This form can also be accessed on the CCSO website from the following link: [https://criticalcareontario.com/covid-19-updates](https://criticalcareontario.com/covid-19-updates)

**Step 6:** Accountabilities of the requesting hospital once the transfer has been approved

- Requesting hospitals are responsible for arranging transport for the ventilators accessed from the provincial stockpile. A list of possible transport providers that can be used is included in the appendix of this document as a resource for requesting hospitals.
- Requesting hospitals are accountable for completing a biomedical check when the ventilator is received (the ventilator will have also been checked by the host hospital before the unit was transported). This form can be found on the CCSO website using the following link: [https://www.criticalcareontario.ca/EN/Toolbox/Pages/Forms.aspx](https://www.criticalcareontario.ca/EN/Toolbox/Pages/Forms.aspx)
- When patient disposition indicates the ventilator is no longer required for that patient encounter, but because ongoing increased volumes or pressures in critical care capacity indicate use of the ventilator at the requesting hospital site will be required in the imminent future, the ventilator may
remains at the requesting site until active use of the ventilator is completed. CCSO may request status updates at any time.

- When the ventilator is no longer required at the requesting hospital for patient care:
  - The ventilator should be returned to the host hospital site with an update provided to CCSO via email (vents@ccso.ca) with the following information:
    - Ventilator model
    - Ministry asset tag number
    - Contact name and phone number for the biomedical department where the ventilator is stored.
  - Requesting hospitals will also need to complete a biomedical check when the ventilator is returned to the host hospital so that it is ready for redeployment. This form can be found on the CCSO website using the following link: https://www.criticalcareontario.ca/EN/Toolbox/Pages/Forms.aspx

- Any subsequent requests to access ventilators from the provincial stockpile after it has been placed into storage or returned to the host hospital will need to follow the procedure outlined above for requesting a ventilator.

For more information, please contact vents@ccso.ca
Role of Ontario’s Provincial Ventilator Stockpile

Critical Care Services Ontario (CCSO) is committed to the improvement of critical care services across Ontario. CCSO’s mandate is to work closely with health service providers to implement programs that improve access, quality and integration of critical care services to meet the needs of critically ill patients. CCSO oversees the release and distribution of the ventilators from the provincial stockpile and assists in coordinating information related to repair needs.

When a hospital experiences a surge in demand for critical care capacity, and the number of patients requiring critical care services increases, the hospital’s Surge Capacity Management Plan is put into action. These plans are centered on common elements and principles which are aimed at ensuring all hospitals have a standardized surge response process. Surge response plans allow hospitals to escalate through a seamless, coordinated response from one level of surge to the next.

A subset of the Ontario Surge Capacity Management Plan, is the provincial ventilator stockpile which is intended to help hospitals manage unexpected increases in demand for critical care ventilation resources, ensuring that all patients receive appropriate treatment in a timely manner.

In circumstances when hospitals have physical bed capacity, but insufficient ventilators to support critical care patients requiring mechanical ventilation, hospitals can access ventilators for temporary periods of time from the province’s stockpile. This Ontario’s Ventilator Stockpile Guidance Document outlines the process and associated procedures for accessing the provincial ventilator stockpile.
Appendix:
Ontario Ventilator Stockpile Allocation Sign-Back Agreement for Requesting Hospitals

Ontario Ventilator Stockpile Allocation Sign-Back Agreement for Requesting Hospitals

To be completed by each hospital site requesting ventilator(s)
On behalf of the hospital, I acknowledge that our organization will receive choose a number of ventilator(s) and supporting equipment.

Legal Name of Health Service Provider/Hospital Corporation:
Hospital Site Name:
Contact Number: Email:

<table>
<thead>
<tr>
<th>Unit Type</th>
<th>Number Approved</th>
<th>Asset Tag Number(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adult ICU</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Paediatric ICU</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Neonatal ICU</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

P8840 Ventilator
Avea Ventilator
Evita XL Ventilator
Bella Vista Ventilator
HT 50 Transport Ventilator
Servo-n Ventilator (Neonatal)

TOTAL

On behalf of the hospital identified above, I agree that this/these ventilator(s) and supporting equipment must be utilized in accordance with and subject to the criteria and terms outlined herein. This allocation will be subject to audit, report back and reconciliation.

CEO/Delegate Name (at Requesting Hospital) Signature (Not Required)

Email/Phone Contact Date (click to enter a date)

Please ensure this form is completed and returned to the following:
1. Local Host Hospital
2. CritiCall By Fax: (905) 388-6377 and by email: Vent_Distribution@criticall.org
3. CCSO via email: vents@ccso.ca

For more information, please contact vents@ccso.ca
Possible Transport Provider Options

<table>
<thead>
<tr>
<th>Company</th>
<th>Contact Information</th>
<th>Website</th>
<th>West</th>
<th>GTA</th>
<th>East</th>
<th>North</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Jerry - (289) 684-5127</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Voyageur Medical Transportation</td>
<td>Phone: 1 (855) 263-7163</td>
<td><a href="https://www.voyageurmedical.ca/">https://www.voyageurmedical.ca/</a></td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>Quality Patient Transfer Service</td>
<td>Phone: (613) 547-8034</td>
<td><a href="https://www.qualitypatienttransfer-service.com/">https://www.qualitypatienttransfer-service.com/</a></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Timmins Courier Service</td>
<td>Phone: Robert - (705) 266-4285</td>
<td>N/A</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rogue Specialty Transportation</td>
<td>Phone: Dispatch - 905-362-9401, ext. 8, Inquiries - Chris - ext. 479</td>
<td><a href="http://www.roguedelivers.com/">http://www.roguedelivers.com/</a></td>
<td>√</td>
<td>√</td>
<td>√</td>
<td>√</td>
</tr>
<tr>
<td>I-NET Express</td>
<td>Phone: Mark - (905) 330-8691, Melissa - (519) 942-5683</td>
<td><a href="http://www.sendyourpackage.com">http://www.sendyourpackage.com</a></td>
<td>√</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

For more information, please contact vents@ccso.ca