

# **COVID-19**

## **Education Resources for Prone during Pandemic**

**Critical Care Strategic Clinical Network  
Alberta Health Services**

**Note: This education package was created by members of the CCSCN, although contains links to a number of pre-existing documents. Ownership of work is as referenced.**

## Purpose:

Critically ill COVID-19 patients frequently require advanced ventilator modes and patient management. Prone position is one of the strategies that should be considered to support failing gas exchange in COVID-19 infected patients with ARDS. It has been recognized that prone positioning is an intervention not routinely offered in some ICUs, and that comfort levels with the procedure vary across the province.

Our purpose is to provide a repository of information and resources, to be used as needed to prepare for the likely increased use of prone positioning during the COVID-19 pandemic. We recognize that there is some variation in current zonal policy and procedures. Our intent is not to change existing local practices, but to provide a summary document with available resources for use as each site deems appropriate.

## Contents:

1. Consensus Guiding Document
2. Policy and Procedures
3. Education Materials
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<b>1. Consensus Guiding Document</b>	
<ul style="list-style-type: none"><li>• <b>Guiding principles for proning in adult patients with ARDS</b></li></ul>	
Provincial Guidance: Prone Positioning for Adult COVID-19 Patients	<a href="https://site.cmg.io/scnresearch/Prone_Positioning_for_COVID_patients-V5.0.pdf">https://site.cmg.io/scnresearch/Prone_Positioning_for_COVID_patients-V5.0.pdf</a>

<b>2. Policy and Procedures</b>	
<ul style="list-style-type: none"><li>• <b>Slight variation exists between local processes</b></li><li>• <b>Use the process you are most familiar with</b></li></ul>	
Calgary Zone- Prone Positioning	<a href="https://insite.albertahealthservices.ca/main/assets/Policy/clp-calgary-cc-dccm-resp-prone-positioning-p-600.pdf">https://insite.albertahealthservices.ca/main/assets/Policy/clp-calgary-cc-dccm-resp-prone-positioning-p-600.pdf</a>
GS ICU- Prone Positioning Procedure	<a href="https://extranet.ahsnet.ca/teams/HPSP/CTE/cnehub/SiteAssets/Documents/Prone/GS%20ICU%20Prone%20procedure.pdf">https://extranet.ahsnet.ca/teams/HPSP/CTE/cnehub/SiteAssets/Documents/Prone/GS%20ICU%20Prone%20procedure.pdf</a>
RDRH ICU- Prone Positioning for Severe Oxygenation Failure Clinical Practice Guideline	<a href="https://insite.albertahealthservices.ca/Main/assets/Policy/clp-dthr-emerg-critical-prone-positioning-severe-oxygenation-failure-cc-xix-50.pdf">https://insite.albertahealthservices.ca/Main/assets/Policy/clp-dthr-emerg-critical-prone-positioning-severe-oxygenation-failure-cc-xix-50.pdf</a>

Grey Nuns CRITICAL CARE Policy & Procedure	<a href="https://extranet.ahsnet.ca/teams/HPSP/CTE/cnehub/SiteAssets/Documents/Proning/Grey%20Nuns%20Prone%20Positioning.pdf">https://extranet.ahsnet.ca/teams/HPSP/CTE/cnehub/SiteAssets/Documents/Proning/Grey%20Nuns%20Prone%20Positioning.pdf</a>
Lippincott Prone Positioning	<a href="https://advisor-lww-com.ahs.idm.oclc.org/lna/document.do?bid=3&amp;did=844460&amp;searchTerm=proning&amp;hits=prone,proning">https://advisor-lww-com.ahs.idm.oclc.org/lna/document.do?bid=3&amp;did=844460&amp;searchTerm=proning&amp;hits=prone,proning</a>
Lippincott Prone Positioning Procedure	<a href="https://procedures-lww-com.ahs.idm.oclc.org/lnp/view.do?pld=4182754&amp;hits=prone,proning&amp;a=true&amp;ad=false">https://procedures-lww-com.ahs.idm.oclc.org/lnp/view.do?pld=4182754&amp;hits=prone,proning&amp;a=true&amp;ad=false</a>
Care of the Adult Critically Ill COVID-19 Patient	<a href="https://www.albertahealthservices.ca/assets/info/ppih/if-ppih-covid-19-care-adult-critically-ill.pdf">https://www.albertahealthservices.ca/assets/info/ppih/if-ppih-covid-19-care-adult-critically-ill.pdf</a>

### 3. Education Materials

- The following resources may be helpful for supporting staff that are new to proning or those that require a review

Prone Positioning FAQ	<a href="https://site.cmg.io/scnresearch/Proning_FAQ_v3.1.pdf">https://site.cmg.io/scnresearch/Proning_FAQ_v3.1.pdf</a>
Code in Prone Position Quick Facts	<a href="https://site.cmg.io/scnresearch/Code_in_Prone_Position_v2.0.pdf">https://site.cmg.io/scnresearch/Code_in_Prone_Position_v2.0.pdf</a>
COVID-19 ICU Refresher Booklet Adult Pandemic Education: NMBA excerpt with Clinical Assessment Tips for patients receiving NMBA	<a href="https://site.cmg.io/scnresearch/NMBA_Refresher_Factsheet_w_waveform.pdf">https://site.cmg.io/scnresearch/NMBA_Refresher_Factsheet_w_waveform.pdf</a>
Prone Positioning Tips- Allied Health	<a href="https://extranet.ahsnet.ca/teams/HPSP/CTE/cnehub/SiteAssets/Documents/SCN/Prone%20Positioning%20Tips%20updated%20May%2006.pdf">https://extranet.ahsnet.ca/teams/HPSP/CTE/cnehub/SiteAssets/Documents/SCN/Prone%20Positioning%20Tips%20updated%20May%2006.pdf</a>

### 4. Video Resources

- It is highly recommended for staff to review the WHH video when learning and as needed prior to proning
- The 3 person technique video is not recommended practice, and is provided for reference only

5 person technique- WHH Prone Positioning Tutorial	<a href="https://www.youtube.com/watch?v=Hd5o4ldp3c0">https://www.youtube.com/watch?v=Hd5o4ldp3c0</a>
3 person technique-NEJM YouTube video on Prone Positioning in Severe ARDS	<a href="https://www.youtube.com/watch?v=E_6jt9R7WJs">https://www.youtube.com/watch?v=E_6jt9R7WJs</a>

### 5. Tools and Checklists

- Most of the policy and procedures linked above contain detailed step by step procedures
- The below are addition resources you may find helpful

Pre Prone Checklist	<a href="https://site.cmg.io/scnresearch/Pre_Turn_Check_List_refs.pdf">https://site.cmg.io/scnresearch/Pre_Turn_Check_List_refs.pdf</a>
Step by Step Prone Positioning Leader Script	<a href="https://site.cmg.io/scnresearch/Step_by_Step_Proning_Positioning_ref.pdf">https://site.cmg.io/scnresearch/Step_by_Step_Proning_Positioning_ref.pdf</a>
Post Turn Checklist and Maintenance of the Patient in Prone Position	<a href="https://site.cmg.io/scnresearch/Post_Turn_Checklist_and_Maintenance_of_the_Prone_Patient_ref.pdf">https://site.cmg.io/scnresearch/Post_Turn_Checklist_and_Maintenance_of_the_Prone_Patient_ref.pdf</a>

Family Teaching Poster	<a href="https://site.cmg.io/scnresearch/Family_proning_poster.pdf">https://site.cmg.io/scnresearch/Family_proning_poster.pdf</a>
SHC Pre Prone positioning Pause	<a href="https://extranet.ahsnet.ca/teams/HPSP/CTE/cnehub/SiteAssets/Documents/Proning/Prone%20Position%20Pause%20PRONING%20%20UNPRONING%20PROCEDURE.pdf">https://extranet.ahsnet.ca/teams/HPSP/CTE/cnehub/SiteAssets/Documents/Proning/Prone%20Position%20Pause%20PRONING%20%20UNPRONING%20PROCEDURE.pdf</a>
SHC Pre arm / head repositioning Pause	<a href="https://extranet.ahsnet.ca/teams/HPSP/CTE/cnehub/SiteAssets/Documents/Proning/Prone%20positioning%20pause%20-%20head%20and%20arm%20reposition.pdf">https://extranet.ahsnet.ca/teams/HPSP/CTE/cnehub/SiteAssets/Documents/Proning/Prone%20positioning%20pause%20-%20head%20and%20arm%20reposition.pdf</a>
RDRH proning kit contents	<a href="https://extranet.ahsnet.ca/teams/HPSP/CTE/cnehub/SiteAssets/Documents/Proning/Red%20Deer%20proning%20kit.pdf">https://extranet.ahsnet.ca/teams/HPSP/CTE/cnehub/SiteAssets/Documents/Proning/Red%20Deer%20proning%20kit.pdf</a>

## 6. eSim Scenarios

- It is highly recommended that staff simulate proning as much and as soon as possible
- The low fidelity simulation can be run by any staff member, regardless of experience with formal simulation training
- We suggest creating a proning simulation “bucket” to keep on unit for ease of access and to encourage practicing. Include a printed version of the *Low Fidelity in Situ Sim* below.
- Encourage hands on practice with all members of the multidisciplinary team (clinical or non-clinical) who could be used to support proning patients
- **DO NOT USE PPE FOR SIMULATION**

Low fidelity in situ sim	<a href="https://site.cmg.io/scnresearch/Low_fidelity_proning_sim_v2.0_ref.pdf">https://site.cmg.io/scnresearch/Low_fidelity_proning_sim_v2.0_ref.pdf</a>
FMC ICU admit/code/prone COVID sim (adapt as needed for local context)	<a href="https://extranet.ahsnet.ca/teams/HPSP/CTE/cnehub/SiteAssets/Documents/Proning/FMC%20ICU%20COVID%20eSim%20scenario.pdf">https://extranet.ahsnet.ca/teams/HPSP/CTE/cnehub/SiteAssets/Documents/Proning/FMC%20ICU%20COVID%20eSim%20scenario.pdf</a>
eSIM CoVID 19 Response Team-	<p><a href="https://extranet.ahsnet.ca/teams/HPSP/CTE/cnehub/SiteAssets/Documents/Proning/eSim%20update%20April%20201.pdf">https://extranet.ahsnet.ca/teams/HPSP/CTE/cnehub/SiteAssets/Documents/Proning/eSim%20update%20April%20201.pdf</a></p> <p><a href="https://extranet.ahsnet.ca/teams/HPSP/CTE/cnehub/SiteAssets/Documents/Proning/4%20eSIM%20CoVID%2019%20Sim%20Response%20Team%20Dashboard%20Apr%202019%20Final.pdf">https://extranet.ahsnet.ca/teams/HPSP/CTE/cnehub/SiteAssets/Documents/Proning/4%20eSIM%20CoVID%2019%20Sim%20Response%20Team%20Dashboard%20Apr%202019%20Final.pdf</a></p> <p>If you need simulation support, resources, advice- please contact the eSIM CoVID 19 Response Team. <b>Lead:</b> Mirette Dube - <a href="mailto:Mirette.Dube@ahs.ca">Mirette.Dube@ahs.ca</a></p> <p><b>Co-Leads:</b> Cherie Serieska - <a href="mailto:Cherie.Serieska@ahs.ca">Cherie.Serieska@ahs.ca</a></p> <p>Andrea Faid, South- <a href="mailto:Andrea.Faid@ahs.ca">Andrea.Faid@ahs.ca</a></p> <p>Christina Eichorst, North - <a href="mailto:Christina.Eichorst@ahs.ca">Christina.Eichorst@ahs.ca</a></p> <p>Theresa Cronin - <a href="mailto:Theresa.Cronin@ahs.ca">Theresa.Cronin@ahs.ca</a></p> <p><b>Medical Director:</b> Dr. Vincent Grant - <a href="mailto:Vincent.Grant@ahs.ca">Vincent.Grant@ahs.ca</a></p> <p>Please also reach out to your site based simulation consultants (if you have one).</p> <p><b>For any pediatric related COVID simulation requests-</b> Dr. Vince Grant and Helen Catena- <a href="mailto:Helen.Catena@albertahealthservices.ca">Helen.Catena@albertahealthservices.ca</a></p>
eSim resources (prebrief and debrief)	<p><a href="https://site.cmg.io/scnresearch/Prebrief_and_CRM_pocket_card.pdf">https://site.cmg.io/scnresearch/Prebrief_and_CRM_pocket_card.pdf</a></p> <p><a href="https://site.cmg.io/scnresearch/PEARLS_pocket_card.pdf">https://site.cmg.io/scnresearch/PEARLS_pocket_card.pdf</a></p> <p><a href="https://site.cmg.io/scnresearch/PEARLS_scripted_debrief_pocket_card.pdf">https://site.cmg.io/scnresearch/PEARLS_scripted_debrief_pocket_card.pdf</a></p>

## 7. Equipment

- In preparation for large numbers of patients potentially requiring proning, make a plan for your equipment needs
- Consider your supply of face cushions (gel or foam), peripheral nerve stimulators, ETCO2 monitors/lines, pillows, and flat sheets

EZ Foam Face Cushion (Contact CNEs Ellen Reil or Eugene Mondor for further information)	<a href="https://site.cmg.io/scnresearch/Temporary_Cushion_Prone_Positioning_Final.pdf">https://site.cmg.io/scnresearch/Temporary_Cushion_Prone_Positioning_Final.pdf</a>
Gel Face Cushion ordering information	<a href="https://extranet.ahsnet.ca/teams/HPSP/CTE/cnehub/SiteAssets/Documents/Proning/Gel%20face%20cushion%20ordering%20info.pdf">https://extranet.ahsnet.ca/teams/HPSP/CTE/cnehub/SiteAssets/Documents/Proning/Gel%20face%20cushion%20ordering%20info.pdf</a>

## 8. References and Resources

Prone Positioning in Severe ARDS (PROSEVA Trial - NEJM)	<a href="https://www.nejm.org/doi/10.1056/NEJMoa1214103?url_ver=Z39.88-2003&amp;rfr_id=ori:rid:crossref.org&amp;rfr_dat=cr_pub%3dwww.ncbi.nlm.nih.gov">https://www.nejm.org/doi/10.1056/NEJMoa1214103?url_ver=Z39.88-2003&amp;rfr_id=ori:rid:crossref.org&amp;rfr_dat=cr_pub%3dwww.ncbi.nlm.nih.gov</a>
Prone Positioning Systematic Review (CMAJ)	<a href="https://www.cmaj.ca/content/186/10/E381.long">https://www.cmaj.ca/content/186/10/E381.long</a>
A Comprehensive Review of Prone Positioning in ARDS	DOI: <a href="https://doi.org/10.4187/respcare.04271">https://doi.org/10.4187/respcare.04271</a>
The Faculty of Intensive Care Medicine Guidance For: Prone Positioning in Adult Critical Care	<a href="https://site.cmg.io/scnresearch/Intensive_Care_Medicine_Guidance_for_Prone_Positioning.pdf">https://site.cmg.io/scnresearch/Intensive_Care_Medicine_Guidance_for_Prone_Positioning.pdf</a>

## 9. Pediatric Resources

Pediatric Prone Consensus Guide	<a href="https://site.cmg.io/scnresearch/Prone_Positioning_for_pediatric_COVID_patients_V3.0.pdf">https://site.cmg.io/scnresearch/Prone_Positioning_for_pediatric_COVID_patients_V3.0.pdf</a>
ACH Prone Positioning in the PICU	<a href="https://insite.albertahealthservices.ca/assets/picuc/tms-picuc-nursing-resources-prone-positioning-protocol.pdf">https://insite.albertahealthservices.ca/assets/picuc/tms-picuc-nursing-resources-prone-positioning-protocol.pdf</a>
Prone Positioning Video	<a href="https://drive.google.com/open?id=17MIwSfxHfs-V9VxcmYUJSQdwEj3qSgHK">https://drive.google.com/open?id=17MIwSfxHfs-V9VxcmYUJSQdwEj3qSgHK</a>
Lippincott Prone positioning (acute illness), pediatric	<a href="https://advisor-lww-com.ahs.idm.oclc.org/lna/document.do?bid=3&amp;did=844649&amp;searchTerm=pediatric%20prone&amp;hits=pediatric,prone,pediatrics,paediatrics,proning">https://advisor-lww-com.ahs.idm.oclc.org/lna/document.do?bid=3&amp;did=844649&amp;searchTerm=pediatric%20prone&amp;hits=pediatric,prone,pediatrics,paediatrics,proning</a>
Care if the Pediatric Critically Ill COVID-19 Patient	<a href="https://www.albertahealthservices.ca/assets/info/ppih/if-ppih-covid-19-care-pediatric-critically-ill.pdf">https://www.albertahealthservices.ca/assets/info/ppih/if-ppih-covid-19-care-pediatric-critically-ill.pdf</a>
ACH Prone Head and Arm Position Pause	<a href="https://extranet.ahsnet.ca/teams/HPSP/CTE/cnehub/SiteAssets/Documents/Proning/Pediatric%20prone%20repositioning%20pause%20arm-head.pdf">https://extranet.ahsnet.ca/teams/HPSP/CTE/cnehub/SiteAssets/Documents/Proning/Pediatric%20prone%20repositioning%20pause%20arm-head.pdf</a>

ACH Prone Position Pause (prior to proning- supinating)	<a href="https://extranet.ahsnet.ca/teams/HPSP/CTE/cnehub/SiteAssets/Documents/Proning/pediatric%20prone-%20unprone%20pause.pdf">https://extranet.ahsnet.ca/teams/HPSP/CTE/cnehub/SiteAssets/Documents/Proning/pediatric%20prone-%20unprone%20pause.pdf</a>
<b>The following resources have been developed for the PRone and OScillation PEdiatric Clinical Trial (PROSpect) and may be useful during the COVID-19 pandemic:</b>	
eSim Scenario	<a href="https://extranet.ahsnet.ca/teams/HPSP/CTE/cnehub/SiteAssets/Documents/Proning/prospect%20eSim.pdf">https://extranet.ahsnet.ca/teams/HPSP/CTE/cnehub/SiteAssets/Documents/Proning/prospect%20eSim.pdf</a>
PROSpect Positioning Protocol	<a href="https://extranet.ahsnet.ca/teams/HPSP/CTE/cnehub/SiteAssets/Documents/Proning/Positioning%20Module%208May2019.pdf">https://extranet.ahsnet.ca/teams/HPSP/CTE/cnehub/SiteAssets/Documents/Proning/Positioning%20Module%208May2019.pdf</a>
PROSpect Prone Positioning Checklist	<a href="https://extranet.ahsnet.ca/teams/HPSP/CTE/cnehub/SiteAssets/Documents/Proning/PROspect%20Protocol%20checklist.pdf">https://extranet.ahsnet.ca/teams/HPSP/CTE/cnehub/SiteAssets/Documents/Proning/PROspect%20Protocol%20checklist.pdf</a>

## 10. Additional Support

- a. A Critical Care Covid-19 Tele-Support system is being developed to ensure that ICUs around the province have access to timely multidisciplinary advice
- b. This “help-line” can be used if you have questions about proning
- c. This will be available for use by all disciplines

Critical Care COVID Consult Line	<a href="https://extranet.ahsnet.ca/teams/HPSP/CTE/cnehub/SiteAssets/Documents/Proning/Provincial%20Critical%20Care%20Tele-support%20for%20COVID-19%20Care%20Advice%20Final.pdf">https://extranet.ahsnet.ca/teams/HPSP/CTE/cnehub/SiteAssets/Documents/Proning/Provincial%20Critical%20Care%20Tele-support%20for%20COVID-19%20Care%20Advice%20Final.pdf</a>
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