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Version	Date	Comments / Changes
1.0	Month Year	Initial Clinical Practice Guideline Released April 2020
2.0	Month Year	October, 2020
3.0	Month Year	

This guideline supports all First Nations Health Authority's (FNHA) organizational directives and operating principles, based on FNHA values of respect, culture, discipline, excellence, relationships and fairness. See [FNHA Policy Statement on Cultural Safety and Humility](#). Clients have the right to receive and guide quality care delivered in the context of cultural safety and humility.

1. FOCUS

This document is intended for FNHA remote and isolated nursing station use, where there is no physician onsite, intervention ability is limited, and/or transfer to higher level of care is delayed. The goal of this document is to safely manage the airways of patients experiencing severe COVID-19 disease and decrease the possibility of transmission. FNHA remains committed to providing the highest level of evidenced-based care in a culturally safe manner.

2. BACKGROUND

In late 2019 the novel coronavirus (COVID-19) was identified and has since rapidly spread causing the current world wide pandemic. [1]

COVID-19 is a novel coronavirus that is highly transmissible and can cause hypoxemic respiratory failure secondary to acute respiratory distress syndrome. (ARDS)[1,2,3]

Based on the most up to date and relevant research, it is important that all health care setting develop guidelines for managing patients with this virus. [1]

Canadian and British Columbia guidelines recognize that in remote settings nurses may be required to recognize, treat and possibly even resuscitate patients with possible COVID-19 infections. Patients with severe symptoms will require complex medical care and should be evacuated rapidly. [3]

Pathophysiology:

COVID-19 enters the cell via the angiotensin-converting enzyme 2 (ACE2) receptor site on type II alveolar cells and intestinal epithelia. Transmission can occur through droplets in the air or through contact with contaminated surfaces, which can transfer the virus from surfaces to the mucus membranes of the face. Complications arise once the virus replicates in the cells, causing symptoms that range from mild to severe. [2]

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Impact on Respiratory System:

COVID-19 directly damages lung tissue. Autopsy studies show pathologic features of ARDS with diffuse alveolar damage and hyaline membrane formation. [2]

COVID-19 can reduce surfactant levels, potentially leading to atelectasis and de-recruitment of alveoli. This is why bronchodilators are not an effective treatment of respiratory distress in patients with COVID-19. [2]

Clinical Progression	
The incubation period is 4-5 days but can be up to 14 days.	
Day 0	First day of symptoms (dry cough, fever, GI complaints). Mild symptoms may progress over the course of a week
Day 5-8	Median day-range where dyspnea develops
Day 7	Median day where hospital admissions often occur
Day 8	Median day where signs and symptoms of Acute Respiratory Distress Syndrome (ARDS) may develop

[2]

Complications from ARDS can evolve rapidly and death can occur within 8-12 hours of worsening respiratory symptoms. Conditions associated with rapid progression from mild to severe disease and ARDS development include:

- Age greater than 65 years
- Diabetes mellitus
- Hypertension
- Lung Disease
- Cancer
- Heart Failure
- Cerebrovascular disease
- Renal Disease
- Liver Disease
- Immunocompromising conditions

[3]

3. DEFINITIONS

Advance Care Planning: Advance care planning is a process that supports adults at any age or stage of health in understanding and sharing their personal values, life goals, and preferences regarding future medical care. The goal of advance care planning is to help ensure that people receive medical care that is consistent with their values, goals and preferences during serious and chronic illness. [4]

Aerosol Generating Medical Procedure: Medical procedures that can induce aerosolization of particles, which can increase the risk for airborne transmission of pathogens. [5] See [Appendix A](#).

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Airborne PPE: Personal Protective Equipment for Airborne pathogen. Airborne PPE includes: N95 mask as well as, gloves, hair covering, long-sleeved cuffed gown and face shield. [6,7]

Coronavirus: COVID-19 is a novel coronavirus that is highly transmissible and can cause hypoxemic respiratory failure secondary to acute respiratory distress syndrome (ARDS). Transmission can occur through droplets in the air or through contact with contaminated surfaces, which can transfer the virus from surfaces to the mucus membranes of the face. [2]

Droplet PPE: Personal Protective Equipment for droplet pathogens. Droplet PPE includes: gloves, long-sleeved cuffed gown, surgical mask and face shield. [6,7]

Goals of care: Discussions about values, beliefs, and wishes as they apply to current clinical situations, sometimes resulting in medical orders for the use or non-use of life-sustaining treatments. If Advance Care Planning has not previously occurred, conversations about a person's values, beliefs, and wishes are still needed in order to develop goals of care that are consistent with them. [8]

HFNC: High Flow Nasal Cannula is an oxygen delivery device that delivers a mixture of air and oxygen at a flowrate that meets or exceeds the patient's peak inspiratory flow. The high flowrate prevents room air entrainment, and therefore provides a precise FiO2 based on the set O2%. [9,10]

MOST: Medical Order for Scope of Treatment (MOST): a medical order form completed as a result of Advance Care Planning conversations with a capable adult, or if the person is unable to provide consent, the substitute decision maker. [11]

PCRA: Point of Care Risk Assessment (PCRA). The PCRA is based on the team's professional judgment (e.g. knowledge, skills, reasoning and education) about the clinical situation as well as availability of measures to limit the spread of potential infection (e.g. viral filters, limiting the number of people in the room). PCRA is an activity implemented by the team to evaluate the likelihood of exposure to them and others to infectious agents (e.g., COVID-19) for a specific:

- interaction (e.g. acutely ill patient requiring intervention)
- task (e.g. Aerosol Generating Medical Procedure [AGMP])
- patient (e.g. is the patient on home isolation, positive COVID questionnaire)
- environment (e.g. isolation room, outside of clinic, waiting room)
- under available conditions or equipment (e.g. viral filters, air exchange in clinic) [12]

SGA: Supraglottic airway: are a group of airway devices that can be inserted into the pharynx to allow ventilation, oxygenation, and administration of anesthetic gases, without the need for endotracheal intubation [13]

4. EXPECTED OUTCOMES

- Provide care that is in line with the patient's previously expressed wishes
- Maximize health outcome by prioritizing interventions with known benefits

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- Management of acute or severe respiratory distress
- Reducing exposure of COVID-19 virus to health care providers and communities

5. ASSESSMENT

5.1 Advance Care Planning

- Initiate Advance Care Planning conversation with all patients and caregivers early, and reassess goals of care often
- Individuals with advanced age and other comorbidities are at a higher risk for severe disease and death [3]

5.2 Early identification of symptoms is the cornerstone to effective treatment of patients who develop severe manifestations of COVID-19

- Closely monitor all clients with respiratory complaints as suspected COVID-19 cases
- Patients with respiratory symptoms can deteriorate very quickly and will require early consultation with physician and patient transport network (PTN) [3]
- Have a low threshold for initiating medevac, in particular for at risk clients, such as elders, individuals with chronic health conditions and anyone with evidence of pneumonia [3]
- Symptom management should be offered to all patients, regardless of goals of care [14]

5.3 Limit possible transmission of communicable illnesses:

- All patients with respiratory complaints should be presumed COVID-19 positive
- Complete Point of Care Risk Assessment (PCRA) prior to contact
- Limit patient contact to essential personnel only [12]
- Don appropriate PPE prior to patient contact
- Limit the use of AGMP

6. INTERVENTION

6.1 Infection Control

- Don appropriate PPE first prior to contact with patient. At minimum mask and face shield should be worn for all patient interactions within 2 meters, regardless of the patient's infection status. [5]
 - **Droplet precautions** should be used for all patients presenting with fever and/or new or worsening cough or acute respiratory illness. Droplet precautions include: gloves, long sleeved cuffed gown, mask and face shield. [6,7]
 - **Airborne precautions** should be used for all AGMP and any emergency situations where infection status is unknown. Airborne precautions include: N95 mask as well as, gloves, long-sleeved cuffed gown and face shield. [6,7]
- Ensure proper decontamination (cleaning and disinfecting) of all equipment between patients. [6,12]
- Limit contamination and exposure to virus by maintain distance during subjective examination and limit close contact with patient if possible. [6]
- Place client in isolation room with NO supplies and limited equipment present in room. Any open supplies (e.g., IV supplies or dressing supplies) that are present in the room will need to be treated as contaminated and thrown out. Any equipment or surfaces in room will need to be disinfected properly

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to prevent transmission. Having sealed supply packages that can be decontaminated between patients may be considered. [15]

See [FNHA COVID-19: Resources for Health Care Professionals webpage](#) for more information regarding infection control and PPE recommendations

6.2 Oxygenation

Target Oxygen Recommendations			
Population	Maintenance Oxygen Levels	Target oxygen during resuscitation	Important notes
Adult	88-92%	≥ 94%	
Pregnant Adult	≥ 92-95%	≥ 94%	High risk for rapid deterioration [3]
Children	≥ 90%	≥ 94%	Nasal cannula is recommended for children as it may be easier to tolerate, consider HFNC [3]

[5,16]

Oxygen modality

Use the lowest oxygen flow rate possible to achieve target oxygen saturations, while minimizing risk of aerosol generating medical procedures (AGMP). [3]

Oxygen Flow Rate	Modality	Important Notes
0.5 – 6LPM	Standard Nasal Cannula	oxygen over 6LPM given via standard nasal cannulas is considered an high risk AGMP [5, 16]
6 – 10LPM	Simple Face Mask	Fit mask tightly to patient's face and cover with a surgical mask [16]
≥ 10LPM	Non-Rebreather mask (NRM)	Restricted to a maximum of 15 LPM. Fit tightly to patient's face and cover with a surgical mask [16]

Consider early initiation of HFNC, the current recommended therapy for hypoxia associated with COVID 19 disease [10]. Early initiation of HFNC may prevent the need for intubation or assisted ventilations, see specific [HFNC guidelines](#) for indications and considerations for use. [10]

6.3 Ventilation

- HFNC is the current recommended therapy for hypoxia associated with COVID 19 disease. HFNC improved patients flow matching, provides positive end-expiratory pressure, limits dead space and may prevent intubation. [1,10]
- Supraglottic airways (SGA) such as King tube or iGel **with a viral filter device** may be considered for assisted ventilation via ambu-bag.
- **No assisted ventilation of patients with Bag-Valve-Mask (BVM)** due to the high-risk of aerosols if vice grip securement of mask is not sustained.
- If SGA insitu during CPR, pause chest compressions for assisted ventilation at a rate of 30:2. [17]
- **Do not use** Oral Pharyngeal Airway (OPA), Nasal Pharyngeal Airway (NPA), when providing oxygen support.

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6.4 Awake Proning

- Awake proning has been demonstrated to increase oxygenation [1]
- May interrupt disease process of progressive atelectasis [18]
- A trial of self-proning should be considered for patients on low to high oxygen if tolerated [3]
- Requires patient who is alert and cooperative [2]
- Strongly recommended for adult patients, and may be considered for pediatric patients with severe symptoms [3]

See [Appendix B](#) for example of proning positions

6.5 Conservative Fluid Management

- Treat patients cautiously with IV fluids and monitor closely for signs and symptoms of fluid overload [3]
- Aggressive fluid administration may worsen oxygenation. Especially important in setting with no mechanical ventilation present
- If sepsis is considered, see Fact Sheet on [SEPSIS MANAGEMENT](#) for more information regarding fluid management within sepsis treatment guidelines

6.6 Consider Empirical Antibiotics

- Target for antibiotic administration is **within 1 hour** of initial patient assessment [3]
- See Fact Sheet on [SEPSIS MANAGEMENT](#) for more information regarding sepsis treatment guidelines

6.7 Avoid or limit Aerosol Generating Medical Procedures (AGMP).

- AGMP require appropriate airborne precautions
- Avoid suctioning - considered an AGMP. Suction only when necessary for secretions in oral cavity and exercise extreme caution.
- No assisted ventilations of patients with Bag-Valved-Mask (BVM)- high risk AGMP
- No Nebulizers- high risk AGMP
 - Only use bronchodilators in consultation with a physician and if clinically indicated (i.e. asthma, COPD, etc.)
 - Instead of nebulizers, use a metered dose inhaler (MDI) with aerochamber
 - To conserve supply, request client/family bring in the personal aerochamber with MDI, if possible

For full information regarding airborne precautions and PPE please refer to the [BC CDC website on personal protective equipment](#) See [Appendix A](#) for list of AGMP

7. DOCUMENTATION

As per standard documentation. SOAP or medivac record.

8. EDUCATION

8.1 Health care personal will provide education to patient and family regarding:

- COVID 19 virus and expected progression of symptoms, as well as expected outcomes
- Recommended interventions to best support the patient

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- Current requirements for isolation during clinic visit, throughout care and in relation to family and staff support (for example: limiting the amount of personal in the room both medical and family)
- Ongoing goals of care based on client wishes and severity of respiratory symptoms

8.2 Ongoing access to learning and consultation through FNHA Professional Practice team and Remote Certified Practice Consultants as needed. Easy to follow Algorithm found in [Appendix C](#). Nurses are expected to access electronic versions of up-to-date guidelines and procedures upon arrival into the nursing station.

9. EVALUATION

- Timely and appropriate evidence-based interventions for clients
- Interventions that are reflective of client's current respiratory status and goals of care
- Improved respiratory status of symptomatic clients
- Early identification of client, who nurses or physicians anticipate may require transfer to higher level of care

Evaluate effectiveness of guideline within 12 months and with ongoing COVID-19 best practice research.

10. MONITORING

- Patients should be assessed and monitored every 15 min if unstable, every 30 minutes while stabilizing and then hourly once stable. If patient deteriorating, assess every 15 minutes and PRN [19]
- Monitoring may be adjusted according to patient's goals of care

Routine monitoring of new evidence and immediate guideline updates and communication as required by evidence.

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REFERENCES

1. Anesi G. Coronavirus disease 2019 (COVID-19): Critical care and airway management issues [Internet]. UpToDate.com. 2020 [cited 29 July 2020]. Available from: https://www.uptodate.com/contents/coronavirus-disease-2019-covid-19-critical-care-and-airway-management-issues?search=covid%20hfnc&source=search_result&selectedTitle=1~150&usage_type=default&display_rank=1#references
2. Farkas J. COVID-19 EMCrit Project [Internet]. emcrit.org. 2020 [cited 30 July 2020]. Available from: <https://emcrit.org/ibcc/COVID19>
3. Fowler R, Hatchette T, Salvadori M, Ofner M, Poliquin G, Yeung T et al. Clinical management of patients with moderate to severe COVID-19 - Interim guidance [Internet]. Canada.ca 2020 [cited 29 July 2020]. Available from: <https://www.canada.ca/en/public-health/services/diseases/2019-novel-coronavirus-infection/clinical-management-covid-19.html#6>
4. Sudore RL, Lum HD, You JY, Hanson LC, Meier DE, et al. Defining Advance care planning for adults: A consensus definition from a multidisciplinary Delphi panel. Journal of Pain and Symptom Management. 2017, May. 53(5): 821-32.
5. Vancouver Coastal Health. IPAC Best Practices Guidelines: Aerosol Generating Medical Procedures [Internet]. Infection Prevention and Control. 2020 [cited 29 July 2020]. Available from: <http://ipac.vch.ca/Documents/Acute%20Resource%20manual/Aerosol%20Generating%20Medical%20Procedures.pdf>
6. FNHA CD Management. COVID-19: Interim Guide to Using Personal Protective Equipment (PPE) [Internet]. Fnha.ca. 2020 [cited 29 July 2020]. Available from: <https://www.fnha.ca/Documents/FNHA-COVID-19-An-Interim-Guide-to-Using-Personal-Protective-Equipment.pdf>
7. Infection Control Guidelines on the Management of Critical Adults with COVID-19 [Internet]. Bccdc.ca. 2020 [cited 29 July 2020]. Available from: http://www.bccdc.ca/Health-Professionals-Site/Documents/COVID19_InfectionControlGuidelinesCriticalCareAdults.pdf
8. Speak Up: Canadian Hospice Palliative Care Association. (January 2020). Advance Care Planning in Canada: A Pan- Canadian Framework. Available from: <https://www.advancecareplanning.ca/wp-content/uploads/2020/06/ACP-Framework-EN-Updated.pdf>
9. BC Children's Hospital, High Flow Humidified Nasal Prong Oxygen Therapy Procedure; 2019 Aug.
10. BC Critical Care COVID-19 Committee. High-Flow Oxygen During the COVID-19 Pandemic [Internet]. Bccdc.ca. 2020 [cited 29 July 2020]. Available from: http://www.bccdc.ca/Health-Professionals-Site/Documents/COVID19_HighFlowOxygenRecommendations.pdf

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11. Medical orders for scope of treatment module [Internet]. Northern Health; 2020 [cited 18 September 2020]. Available from: https://www.northernhealth.ca/sites/northern_health/files/health-information/health-topics/advanced-care-planning/documents/medical-orders-for-scope-of-treatment-module.pdf
12. Salvadori M, Chung S, NAC-IPC, PHAC. Infection prevention and control for COVID-19: Second interim guidance for acute healthcare settings [Internet]. Canada.ca. 2020 [cited 29 July 2020]. Available from: <https://www.canada.ca/en/public-health/services/diseases/2019-novel-coronavirus-infection/health-professionals/infection-prevention-control-covid-19-second-interim-guidance.html>
13. Doyle D. Supraglottic devices (including laryngeal mask airways) for airway management for anesthesia in adults [Internet]. UpToDate.com. 2019 [cited 18 September 2020]. Available from: https://www.uptodate.com/contents/supraglottic-devices-including-laryngeal-mask-airways-for-airway-management-for-anesthesia-in-adults?search=supraglottic%20airway&usage_type=default&source=search_result&selectedTitle=1~150&display_rank=1
14. Arya A, Buchman S, Gagnon B, Downar J. Pandemic palliative care: beyond ventilators and saving lives. CMAJ [Internet]. 2020 [cited 18 September 2020];192(15). Available from: <https://doi.org/10.1503/cmaj.200465>
15. Primary care [Internet]. Bccdc.ca. 2020 [cited 29 July 2020]. Available from: <http://www.bccdc.ca/health-professionals/clinical-resources/covid-19-care/clinical-care/primary-care>
16. Oxygenation & Intubation Threshold Guidance for Adults with Suspected Covid-19 in Rural Settings [Internet]. Bccdc.ca. 2020 [cited 29 July 2020]. Available from: http://www.bccdc.ca/Health-Professionals-Site/Documents/COVID19_OxygenationIntubationThresholdGuidanceAdultsRural.pdf
17. Adult CPR Protocol for Suspect and Confirmed Cases of COVID-19 [Internet]. Bccdc.ca. 2020 [cited 29 July 2020]. Available from: http://www.bccdc.ca/Health-Info-Site/Documents/COVID_Adult_CPR_Protocol.pdf
18. Farkas J. PulmCrit – Awake Proning for COVID-19 [Internet]. emcrit.org. 2020 [cited 29 July 2020]. Available from: <https://emcrit.org/pulmcrit/awake-prone-covid/>
19. BC Children’s Hospital, Nursing Assessment of Pediatric Patients and Related Documentation: inpatient Units; Procedure; 2018 Jul. Available from: <http://policyandorders.cw.bc.ca/resource-gallery/Documents/BC%20Children's%20Hospital/CC.03.01%20Nursing%20Assessment%20Of%20Pediatric%20patients%20And%20Related%20Documentation%20Inpatient%20Units.pdf>

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11. APPENDICES

APPENDIX A: List of Aerosol Generating Medical Procedures (AGMP)

High-Risk AGMP	Other AGMP
<ul style="list-style-type: none"> ○ Endotracheal intubation & extubation ○ High frequency oscillatory ventilation ○ Bag mask ventilation ○ Bronchoscopy and bronchoalveolar lavage ○ Laryngoscopy ○ Positive pressure ventilation (BiPAP & CPAP) ○ Autopsy of lung tissue ○ Nasopharyngeal washing, aspirate, and scoping ○ Sputum induction 	<ul style="list-style-type: none"> ○ Airway suctioning ○ High-flow oxygen (including single and double O2 set ups, Optiflow and Airvo) ○ Breaking closed ventilation system, intentionally (e.g., open suctioning), unintentionally (e.g., patient movement) ○ Cardio-pulmonary resuscitation (CPR) ○ Tracheostomy care ○ Chest physiotherapy (manual and mechanical cough assist device (MI-E)) ○ Administration of aerosolizing or nebulizing medications ○ Abscess/wound irrigation (non-respiratory TB)

[5]

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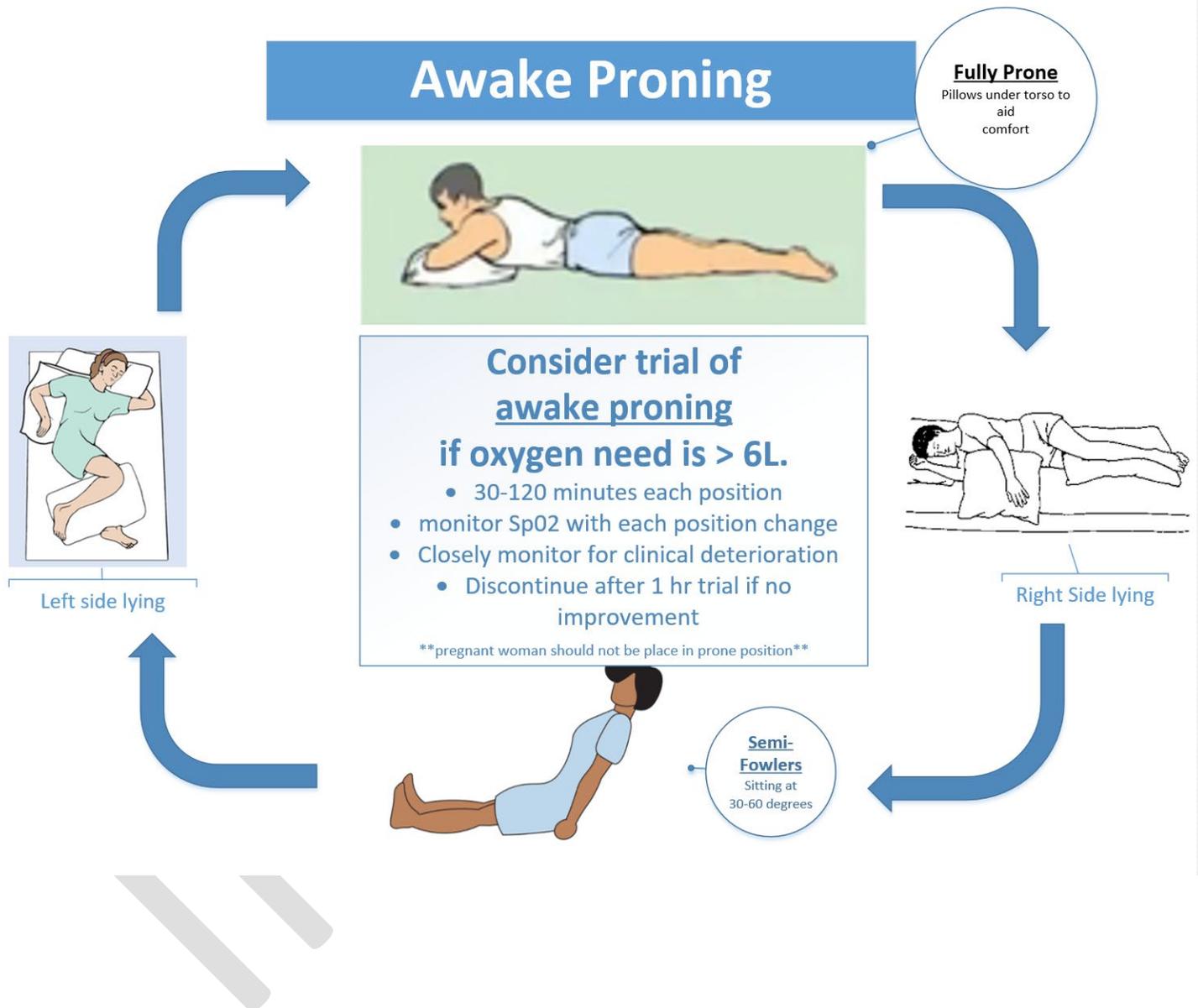
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APPENDIX B: Awake Proning for Adults with Suspected COVID-19



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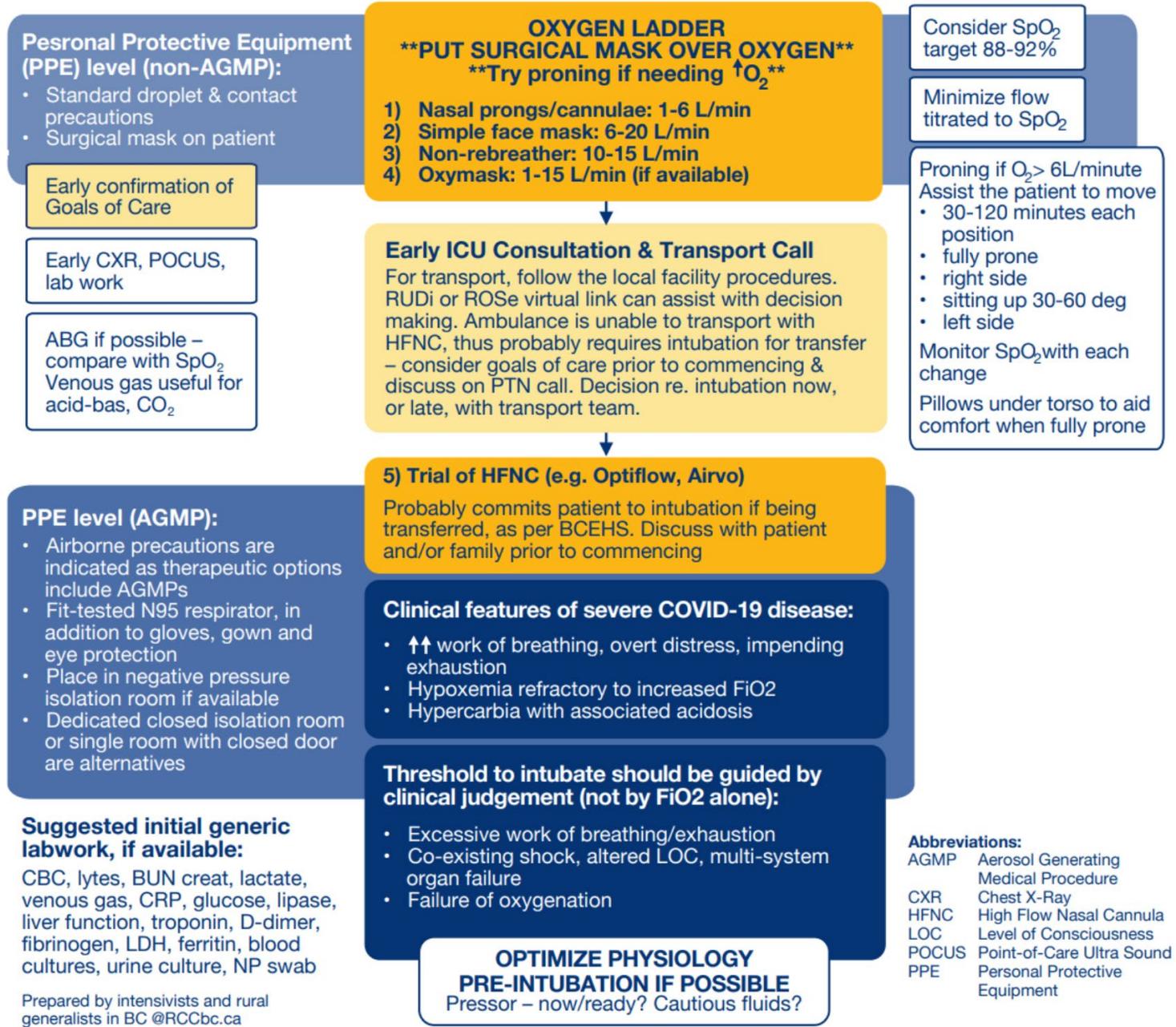
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APPENDIX C: [Oxygenation & Intubation Threshold Guidance for Adults with Suspected Covid-19 in Rural Hospital Settings](#) [16]



Nurses are expected to access electronic versions for most up-to-date version
Available at: http://www.bccdc.ca/Health-Professionals-Site/Documents/COVID19_OxygenationIntubationThresholdGuidanceAdultsRural.pdf

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