Critical Care Response Team (CCRT) Adult In-Patient - Medical Directive

Medical Advisory Committee Approved: 23JUL2020

☑ Harmonized

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Authorizing Prescriber(s)

LHO - Critical Care Intensivists
LHB - Lakeridge Health Bowmanville Physicians
LHAP - Lakeridge Health Ajax/Pickering Physicians

Authorized to Whom

Critical Care Response Team (CCRT) who have the knowledge, skill, judgement, and have successfully completed the CCRT certification and competency validation program. Competency evaluation on theory and practical simulation testing must be validated prior to becoming a member of CCRT.

Co-implementers:

- Medical Radiation Technologists (MRT[R]) employed at LH who have the knowledge, skill and judgement to perform diagnostic imaging as selected by CCRT from the orders table under this directive.
- Medical Laboratory Assistants/Technologists (MLA/T) employed at LH who have the knowledge, skill and judgement to process blood and other samples as selected by CCRT from the orders table under this directive.
- Phlebotomists employed at LH who have the knowledge, skill and judgement to draw blood samples by venipuncture for laboratory tests as selected by CCRT from the orders table under this directive.
- Nurses who are employed at LH providing care for adult in-patients, as co-implementer(s), who have the knowledge, skill and judgement to carry out CCRT selected orders.

Patient Description/Population

Any patient over 18 years of age admitted into an adult in-patient care department.

Order and/or Procedure

The order and/or procedures are not presented in sequential order. Any one of or combination may be performed by a CCRT member. Refer to the Order Table Form. The CCRT member will also complete the following:

- Review patient's history and diagnosis including recent antibiotics
- Initiate vital sign monitoring including temperature and perform q 5 – 30 minutes and PRN
- Manage airway to prevent and/or relieve airway obstruction

- Utilize Intraosseous Medical Directive if required
- Ensure MRP is aware of the treatment initiated
- Ensure CCRT Intensivist is aware of patient's condition and treatment initiated
- Each intervention will be explained to the patient and/or family, and or Substitute Decision Maker (SDM) when possible
- Obtain ABGs via arterial line if insitu.

Indications to the Implementation of the Directive

Any admitted adult in-patient with indications for Hypotension/Shock, and/or Abdominal Pain, and/or Chest Pain, and/or Respiratory Distress, and/or Suspected Anaphylaxis, and/or Change in Central Nervous System (CNS) as per the Order Table Form.

Contraindications to the Implementation of the Directive

The directive must not be implemented in any of the following circumstances:

- The patient refuses to consent to the procedure
- The patient is not able to cooperate with the procedure(s)
- Patient's advanced care plan doesn't support initiating or continuing with Medical Directive procedure(s).
- Existence of procedure specific contraindications as noted in the Order Table Form

Note: If a patient or substitute decision maker (SDM) refuses treatment, contact the Most Responsible Practitioner (MRP) or delegate immediately to determine plan of care.

Consent

The CCRT Regulated Health Care Provider (RHCP) implementing the medical directive must obtain consent if the patient is capable of providing it. In an emergency situation, if the patient is not capable of providing consent, the CCRT RHCP may administer treatment without consent if, in his or her opinion, all of the following are true:

- the patient is incapable with respect to the treatment
- the patient is experiencing severe suffering or is at risk if the treatment is not administered promptly, of suffering serious bodily harm
- it is not reasonably possible to obtain consent or refusal on the person's behalf

Documentation Requirements

In addition to standard documentation practices, the RHCP implementing this directive must document the following in the order section of the person's health record:

- The name of this medical directive
- The procedure implemented
- The name of the implementer

- The date and time
- Legible signature of implementer including credentials
- Co-implementers will document in the patient's health record and as per standard documentation practices

Review/Evaluation Process

This medical directive will be reviewed every 2 years by the Critical Care Program in conjunction with the Critical Care Response Team (CCRT) Respiratory Distress – Respiratory Therapy Medical Directive.

References

College of Nurses of Ontario (2017). Legislation and regulation RHPA: Scope of practice, controlled acts model. Retrieved from http://www.cno.org/globalassets/docs/policy/41052_rhpascope.pdf

Government of Ontario (2017). Regulated health professions act, 1991S.O. 1992, Chapter 18. Retrieved from https://www.ontario.ca/laws/statute/91r18

Institute for Safe Medication Practices (ISMP) Canada (2016*).* Changes in expression of strength: Elimination of ratios on single-entity injectable products. Volume 16 Issue 2. Retrieved from https://www.ismpcanada.org/download/safetyBulletins/2016/ISMPCSB2016-

Chojecki, D., & Moga, C. (2016). Oxygen therapy in acute care settings. *Institute of Health Economics Report.* Alberta:ON. Retrieved from: https://www.ihe.ca.download/oxygen_therapy_in_acute_care_settings.pdf.

This table must **not** be used independently apart from the Medical Directive

Order Table Form

Hypotension/Shock		
Order	**Indication**	**Contraindication**
1. Oxygen therapy to maintain oxygen saturation above 92%, COPD 88-92% 2. Initiate cardiac monitoring and perform 12 lead ECG 3. STAT blood work (CBC, electrolytes, glucose, urea, creatinine, lactate, CK, Troponin, INR, APTT, Group and Screen, ABG [i-STAT ABG] or VBG [pH, pO2 and pCO2]) 4. Blood cultures x 2, sputum culture and urine culture if temperature greater than 38°C 5. STAT portable chest x-ray – upright if possible 6. Insert a large gauge saline lock (18 if possible)	The patient has symptoms suggestive of hypotension/shock such as: • Low BP (SBP less than 90 mmHg, drop in SBP greater than 20 mmHg, SBP less than patient's baseline, MAP less than 65 mmHg) • Unexplained tachycardia and/or dysrhythmia • Temperature below 35ºC or over 38ºC • Bleeding identified on assessment	The patient's symptoms are not suggestive of hypotension or shock
7. Initiate Ringers Lactate 250 mL bolus over 5 minutes if SBP is less than 90 mmHg **OR** a drop in SBP greater than 20 mmHg from patient's baseline **OR** a MAP less than 65 mmHg 8. Repeat Ringers Lactate fluid bolus to a maximum of 1 Litre		Do not administer RL bolus if patient's chest is not clear on auscultation or patient oxygen saturation has decreased

Abdominal Pain			
Order	**Indication**	**Contraindication**	**Notes (Optional)**
1. Oxygen therapy to maintain oxygen saturation above 92%, COPD 88-92% 2. Initiate cardiac monitoring and perform 12 lead ECG 3. STAT blood work (CBC, electrolytes, glucose, urea, creatinine, lactate, INR, APTT, Corrected Calcium, Magnesium, Phosphorus, Albumin, ALT, ALP, GGT, Bili, AST, Lipase, ABG [i-STAT ABG] or VBG [pH, pO2 and pCO2]) 4. Blood cultures x 2, sputum culture and urine culture if temperature greater than 38°C 5. Specimen for C Difficile if loose stools 6. Insert a large gauge saline lock (18 if possible)	The patient complains of abdominal pain or withdrawals from pain during abdominal palpitation.	The patient's symptoms are not suggestive of abdominal pain.	Check use of antibiotics in past 12 weeks to assist in identifying if potential C Difficile related to antibiotic use
7. STAT portable chest xray – upright if possible 8. Stat Portable abdominal xray – include information about area of abdominal pain			Chest xray in upright position to rule out intraperitoneal air.

Chest Pain			
Order	**Indication**	**Contraindication**	**Notes (Optional)**
1. Oxygen therapy to maintain oxygen saturation above 92%, COPD 88-92% 2. Check BP in both arms 3. Initiate cardiac monitoring and perform 12 lead ECG, notify physician STAT if ST elevation, ST segment depression or new onset LBBB 4. Obtain 15 lead ECG to rule out inferior or posterior MI 5. STAT blood work (CBC, electrolytes, glucose, urea, creatinine, lactate, INR, APTT [if on anticoagulants], Corrected Calcium, Magnesium, Phosphorus, Albumin, Troponin, ABG [i-STAT ABG] or VBG [pH, pO2 and pCO2]) 6. Insert a large gauge saline lock (18 if possible)	The patient complains of chest pain or symptoms such as: • Chest pressure, tightness • Back, jaw or arm pain • Short of breath • Cold sweats • Dizziness or lightheadedness • Nausea or vomiting	The patient's symptoms are not suggestive of chest pain	Checking BP in both arms is to assess for aortic dissection and identify if there is a significant (greater than 20 mmHg) difference in values
7. If SBP greater than 90 mmHg, administer Nitroglycerin 0.4 mg sublingually q 5 min. as required for chest pain to a maximum of 3 administrations 8. Monitor HR and SBP after each Nitroglycerin dose 9. Hold Nitroglycerin if SBP drops to less than 90 mmHg or if HR less than 40 or greater than 140 beats min		If there is a documented allergy to Nitroglycerin, do not administer. Do not give Nitroglycerin if patient is on erectile dysfunction medications	Erectile dysfunction medications can cause severe drop in BP leading to cardiovascular collapse

<table>
<tr><th colspan="3">Respiratory Distress</th></tr>
<tr><th>Order</th><th>Indication</th><th>Contraindication</th></tr>
<tr><td>1. Oxygen therapy to maintain oxygen saturation above 92%, COPD 88-92%
2. Initiate cardiac monitoring and perform 12 lead ECG
3. STAT blood work (CBC, electrolytes, glucose, urea, creatinine, Corrected Calcium, Magnesium, Phosphorus, ABG [i-STAT ABG] or VBG [pH, pO2 and pCO2])
4. STAT Portable chest x-ray – upright if possible
5. Insert a large gauge saline lock (18 if possible)</td><td rowspan="2">The patient complains of respiratory distress or presents with symptoms
such as:
• Shortness of breath
• Tachypnea
• Dyspnea
• Orthopnea
• Cyanosis
• Accessory muscle use
• Stridor
• Crackles/wheezes/silent chest</td><td>The patient’s symptoms are not suggestive of respiratory distress</td></tr>
<tr><td>6. If on auscultation:
a) wheeze or silent chest – give Salbutamol 100 mcg/puff 4 – 8 puffs inhaled q 15 min up to 3 times and Ipratropium 20 mcg/ 4 – 8 puffs inhaled once
b) crackles – position in Semi to High Fowlers</td><td>If there is a documented allergy to Salbutamol, do not administer

If there is a documented allergy to Ipratropium, do not administer</td></tr>
<tr><td>7. Initiate CPAP at 5 cm H20 and increase by 5 cm H20 to maximum 15 cm H20 as required to relieve symptoms/hypoxia</td><td>Respiratory rate greater than 30 and/or oxygen saturation less than 90% on 100% oxygen by non-rebreather or high-flow nasal cannula</td><td>• SBP less than 90 mmHg
• Suspected pneumothorax
• Decrease in LOC leading to airway compromise
• Inability to sit upright
• Abdominal surgery last 7 days
• Nausea/vomiting</td></tr>
</table>

Suspected Anaphylaxis		
Order	**Indication**	**Contraindication**
1. Oxygen therapy to maintain oxygen saturation above 92%, COPD 88-92% 2. Initiate cardiac monitoring and perform 12 lead ECG 3. STAT blood work (CBC, electrolytes, glucose, urea, creatinine, Corrected Calcium, Magnesium, Phosphorus, ABG [i-STAT ABG] or VBG [pH, pO2 and pCO2]) 4. STAT portable chest x-ray if patient is short of breath – upright if possible 5. Immediately stop/discontinue offending agent 6. Insert a large gauge saline lock (18 if possible)	The patient states is having an allergic reaction, and/or who present with a recent exposure to a probable allergen and demonstrate signs and symptoms of an anaphylactic reaction such as: • Rash • Hives • Shortness of breath • Nausea/vomiting	The patient's symptoms are not suggestive of an anaphylaxis reaction
7. Administer DiphenhydrAMINE 50 mg IM/IV push x 1 dose		If there is a documented allergy toDiphenhydrAMINE, do not administer
8. Severe allergic reaction administer 0.3 mL (0.3 mg) EPINEPHrine 1:1000 IM 9. Repeat in 10 – 15 min. if remains in respiratory distress or SBP less than 90 mmHg	Severe allergic reaction: • Respiratory distress • Audible stridor • SBP less than 90 mmHg	If there is a documented allergy toEPINEPHrine, do not administer
10. Initiate Ringers Lactate (RL) 250 mL bolus over 5 minutes if SBP is less than 90 mmHg **OR** a drop in SBP greater than 20 mmHg from patient's baseline **OR** a MAP less than 65 mmHg		Do not administer RL bolus if patient's chest is not clear on auscultation

Change in Level of Central Nervous System (CNS)			
Order	**Indication**	**Contraindication**	**Notes** (Optional)
1. Oxygen therapy to maintain oxygen saturation above 92%, COPD 88-92% 2. Initiate cardiac monitoring and perform 12 lead ECG 3. STAT blood work (CBC, electrolytes, glucose, urea, creatinine, Corrected Calcium, Magnesium, Phosphorus, lactate, INR, APTT, ABG [i-STAT ABG] or VBG [pH, pO2 and pCO2]) 4. POC blood glucose and initiate Hypoglycemic Protocol if required 5. If patient is postictal, place in recovery position 6. Insert a large gauge saline lock (18 if possible)	The patient presents with symptoms such as: • Acute neurological condition change • Focal weakness • Dizziness • Aphasia • Decreasing level of consciousness • Active seizures	The patient's symptoms are not suggestive of a change in CNS	Activate a Code Stroke if indicated
7. Naloxone 0.4 mg IM/IV push STAT if patient unconscious and received opiates within past 24 hours and no alternate explanation has been identified as to reason for decrease in level of consciousness 8. Naloxone 0.4 mg IM/IV push STAT for suspected intentional overdose and give q 3 min. to maximum of 2 mg		If there is a documented allergy to Naloxone, do not administer	