MEDICAL DIRECTIVE
Critical Care Outreach Team (CCOT) – Suspected Anaphylaxis - Like

Approved by/Date: Medical Advisory Committee – October 27, 2015

Authorizing physician(s)

Intensivists who are part of the Critical Care Physician Section

Authorized to who

CCOT Responders (RRTs and RNs) that have the knowledge, skill and judgment and who have successfully attained certification by a course of self-study supplied by the Intensivist – Educators appointed by the Authorizing Physicians, participated in Didactic and Simulation education, completed orientation with Critical Care Outreach Team, and have successfully passed examinations.

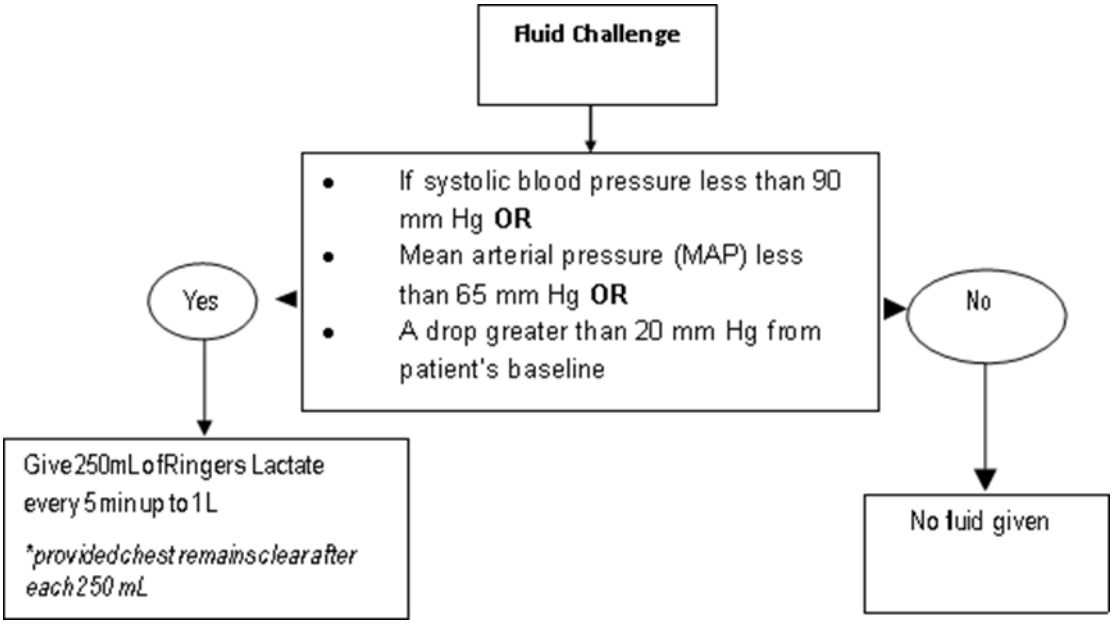
Patient Description / Population

Adult Patients over 18. Patients who present with a recent history of exposure to a probable allergen and demonstrate signs and symptoms of a severe life-threatening anaphylactic reaction such as rash, hives, shortness of breath, nausea and vomiting.

Medical Directive Description/Physician's Order

1. Manage the airway including support of oxygenation and ventilation.
2. Oxygen therapy as required to maintain oxygen saturation above 92%, COPD 88-92%
3. Monitoring including cardiac, blood pressure and pulse oximetry
4. **Immediately stop/discontinue offending agent**
5. Vital signs including temperature q 5 min – 30 min and PRN
6. Review patient history and diagnosis
7. Stat POC or i-Stat ABG (pH, pO2 and pCO2)
8. Stat Blood Work (CBC, electrolytes, glucose, urea, creatinine, Magnesium, Phosphorus, Corrected calcium)
9. Portable Chest X-ray – upright if possible : for shortness of breath
10. Insert a large (18 if possible) gauge IV
11. Intraosseous access may be attained when it is a very unstable, life threatening situation and when IV access has not been successful after 2 attempts or 90 seconds of searching for a suitable vein
12. Administer diphenhydramine (Benadryl) 50 mg IM/IV x 1 dose

13. **Severe allergic reaction:** If patient is in respiratory distress, has audible stridor, or is hypotensive (SBP less than 90) administer 0.3 mL (0.3mg) epinephrine 1:1000 IM. This may be repeated for one additional dose in 10 -15 minutes if remains in respiratory distress or hypotension (SBP less than 90)
14. If systolic blood pressure is less 90mmHg or a drop in systolic BP greater than 20 mmHg from patient's baseline or a Mean Arterial Pressure (MAP) of less than 65 mmHg, initiate a fluid crystalloid solution (Ringers Lactate or Plasma Lyte) challenge (250mL in 5 minutes) and may repeat q 5 minutes to maximum of 1 litre if chest remains clear on auscultation



Specific conditions/circumstances that must be met before the Directive can be implemented

- The patient must have a history of exposure to a probable allergen.
- Each intervention will be explained to the patient and/or family when possible.

Contraindications to the implementation of the Directive

- Patient refuses therapy.
- Patient is incapable of cooperating with the procedures.
- Allergy to Diphenhydramine

Identify relevant Delegated Control Act or Added Skill associated with this Directive

Administering a substance by injection or inhalation.
Performing a procedure below the dermis:

- IV Insertion Certification
- IO Insertion Certification

Documentation requirements

- Implementation of the Medical Directive must be documented on the chart under physician orders.
- Vital signs pre and q15 to 30 minutes post medication.
- Response to medications administered must be documented in the CCOT note.

Review/Evaluation Process (how often/by who)

Every 2 years by Medical Department - Emergency Medicine and Critical Care Council.

Related Documents

ORNGE. Medical Directives and Standing Orders. Environmental-Anaphylaxis. May 2007 Pg. 115- 116.

Ontario Provincial Primary Care Paramedic Medical Directives – Anaphylaxis Medical Directive. Waterloo Region, Ontario, Canada. Base Hospital Program Jan 1, 2007 pg. 14.

Hamilton Health Sciences Corporation. Critical Care Response Team: Care of the Patient with Anaphylaxis Medical Directive. Ontario. Canada. 2003.

Lakeridge Heath Corporation. Medical Directive - Treatment of Anaphylaxis during Hemodialysis or Iron Infusion. Nephrology Services. 2005.

References

1. Garrard, C, Young, D. Suboptimal care of patients before admission to an Intensive care us caused by a failure to appreciate or supply the ABCs of life support. BJM 1998; 316:1841-1842.

2. Buist MD, Jarmolowski E, Burton PR, et al. Recognizing clinical instability in hospital patients before cardiac arrest or unplanned admission to intensive care: a pilot study in a tertiary care hospital Med J. Aust. 1999; 171:22-25.

3. Berwick, DM. Redesigning hospital care. JAMA. 2006; 295:324-327.

4. Hillman K, Chen J, Cretikos M, et al. Introduction of the medical emergency team (MET) system: a cluster-randomized controlled trial. Lancet. 2005; 365:2091-2097.

5. Bellomo R, Goldstein D, Uchino, S et al. A prospective before and after trial of a medical emergency team. Med J Aust. 2003; 179:283-287.

6. Bellomo R, Goldstein D, Uchino, S et al. Prospective controlled trial of effect of a medical emergency team on postoperative morbidity and mortality rates. Crit Care Med. 2004; 32:916- 921.

7. Buist MD, Moore GE, Bernard SA, et al. Effects of a medical emergency team on reduction of incidence of and mortality from unexpected cardiac arrests in hospital: a preliminary study. BMJ. 2002; 324:387-390.

8. Kenward G, Castle N, Hodgetts, T, et al. Evaluation of a medical emergency team one year after implementation. Resuscitation. 2004: 61:257-263.

9. DeVita MA, Braithwaite RS, Mahidhara R, et al. Use of medical emergency team responses to reduce hospital cardiopulmonary arrests. Qual Saf Health Care. 2004; 13:251-254.

10. Jolley J, Bendyk H, Holaday B, Lombardozzi KA, et al. Rapid Response Teams: do they make a difference? Dimens Crit Care Nurs. 2007; 35:2076-2082.

11. Jones D, Opdam H, Egi M, et al. Long term effect of a medical emergency team on mortality in a teaching hospital. Resuscitation. 2007; 74:235-241.

12. Sebat, F et al. Designing, Implementing and Enhancing a Rapid Response System. Society of Crit Care Med. 2009; 1-217.

13. London Health Sciences, Ontario Canada. UWO Program in Critical Care Document. Educational Objectives for the Critical Care Outreach Teams July 2009. Pg. 1-4.

14. Gentofte Hospital. Full-scale simulation training of MET and staff from general ward. June 14, 2009.

15. Bell M et al. Prevalence and sensitivity of MET – criteria in a Scandinavian University Hospital. Resuscitation 2006; 70:66-73.

16. Aneman A et al. The ERC Guidelines for Resuscitation 2005 and the Medical Emergency Team. Scand J Trauma Resusc Emerg Med. 2006; 14:74-77.

17. Bengtsson A et al. Medical emergency team implementation: experiences from the Karolinska University Hospital. Solna, Sweden. 2006.

18. Credit Valley Hospital, Ontario Canada. RACE Team – Preliminary Diagnostics and Interventions. Jan. 2007.

19. Hodder, Rick. Critical Care Response Team Provider Manual; Canadian Resuscitation Institute 2006.

20. Faculty of Medicine, Liverpool Health Science, Liverpool, Australia. Medical Emergency Team, 2005, pg. 1-3.

21. North York General Hospital, Toronto, Canada. Adult Cardiac Arrest Medical Directives. Oct. 2005 pg. 1-7.

22. Institute for Healthcare Improvement: Establish a Rapid Response Team - Getting Started Kit: Rapid Response Teams - How-to Guide. Cambridge, Massachusetts, USA. Oct. 2005.

23. The Canadian Society of Respiratory Therapists (CSRT). CSRT-Advocacy – Rapid Response Teams /Medical Emergency Teams. April 2005.

24. Trillium Health Centre, Toronto, Ontario, Canada. Assessment and Medical Inpatient by Medical Emergency Team. June 8, 2006. Pg. 1-4.

25. McFarlan S, Hensley, S. Implementation and outcomes of a Rapid Response Team. J Nurs Care Qual. 2007, Vol 22; 4:307-313.

26. Jackson M. Rapid Response Teams; what does the RRT bring? Bingham and Women's Hospital, Boston MA. USA. 2005.

27. Anderson N, Sutton A, et al. Lessons from the Field "ICU without Walls". The Calgary Health Regions ICU Outreach Team. Alberta Canada. June 2004.

28. Hamilton Health Sciences Corporation. Critical Care Response Team : Master Medical Directives. Ontario. Canada. 2003.

29. Lakeridge Health Corporation. Medical Directive - Adult Intubation by Registered Respiratory Therapists. Ontario, Canada, Oct 2009.

30. Lougheed D et al. Canadian Respiratory Guidelines. Recommendations for the Management of Asthma, Children (6 years and older) and Adults. Can Respir J 2010. Vol. 17(1).