Case 慈恵医大 No. 1 (For instructor)

RRS: Hypoxemia and respiratory arrest

1. Scenario Concept

Rapid Response System is a tool implemented in hospitals designed to identify and respond to patients with early signs of clinical deterioration on non-intensive care units. To recognize potential dangerous status and request for help should be empower through frequent simulation training. The scenario with respiratory deterioration request participants to perform history taking, early assessment, initial treatment, and most importantly, activation of RRS system.

2. Education Purpose

- ✓ Identify respiratory pattern and desaturation and provide treatment
- ✓ Activate RRS promptly according to RRS activation criteria
- ✓ Perform communication with SBAR (Situation-Background-Assessment-Recommendation) skill for RSS staff

3. Patient Information

Symptoms and signs: respiratory distress
Allergy: None
Medication: bronchodilator, clarice (antibiotic), 10L/min oxygen use
Past history: chronic bronchitis
Last meal: last evening
Weight: 60 kg

4. Observation and debriefing

Initial observation
Recognize hypoxemia and respiratory condition
Perform ventilation support with bag-valve-mask (BVM)

Report to RRS Nursing staff properly

5. Hardware preparedness

- ☐ Resuscitation cart
- ☐ IV fluid and IV setting
- ☐ Oxygen devise: nasal cannula, simple mask, ventri mask, non-rebreathing mask
- ☐ EKG monitor, BP monitor
- ☐ The simulator manikin: SimMan

6. Scenario staging

Scenario Phase 1 (0-3 minutes)

- ☐ Initial vital sign: HR 80 /minutes, BP 120 / 80 mmHg, RR 20 / minutes, Temperature: 38 ^{o}C, Consciousness: E4 V5 M6 , SpO2: 98% (O2 10L/min)
- ☐ Volunteered information: A 74-year-old male was brought to hospital for progressive dyspnea for days
- ☐ Manikin setting:
  - ➢ HR 80 /minutes, BP 120 / 80 mmHg, RR 20 / minutes, Temperature: 38 ^{o}C, SpO2: 98% (O2 10L/min)
  - ➢ Pupils: 3mm/ 3mm, light reflex: +/+
  - ➢ EKG: sinus rhythm, rate: 80 /minutes
  - ➢ Chest: bilateral wheezing
  - ➢ Heart: clear
  - ➢ Abdomen: WNL
  - ➢ Extremities: warm

Scenario Phase 2 (3-6 minutes)

- ☐ Vital sign: HR 120 /minute, BP 136 / 96 mmHg, RR 30 / minute, Temperature: 38.1 ^{o}C, Consciousness: E3 V5 M6, SpO2: 92 % (O2 10L/min)
- ☐ Volunteered information: The patient is too dyspnea to speak well.
- ☐ Manikin setting:
  - ➢ EKG: sinus tachycardia , rate: 120 /minutes
  - ➢ Vital sign: HR 120 /minute, BP 156 / 96 mmHg, RR 30 / minute, Temperature: 38.1 ^{o}C, SpO2: 92 %

- Pupils: 3mm/ 3mm, light reflex: +/+
- Throat: patent
- Chest: wheezing

7. To Do Checklist

- ☐ Recognize hypoxemia (urgent)
- ☐ Use SBAR for reporting RRS Nursing staff appropriately

- ☐ Take a medical record
- ☐ Evaluation of airway / respiration
- ☐ Evaluation of circulation
- ☐ Evaluation of Consciousness
- ☐ Application of monitor (AED or defibrillator)
- ☐ Check vital sign

- ☐ Move the bed and remove the head board and side fence if necessary
- ☐ Perform ventilation support with bag-valve-mask (BVM)
- ☐ Evaluate patient circulation appropriately and management
- ☐ Secure infusion route
- ☐ Re-evaluate patient condition