Pediatric Rural Provider Training: Utilizing An MCI Exercise to Improve Hospital Resource Management And the System of Care of Pediatric Trauma Patients

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Overview

• Background
• Needs Assessment
• Pilot Testing
• Revised Curriculum/ Current Trainings
• Challenges / Lessons Learned
EMS Pediatric Simulation Trainings 2008 - 2010

Photos and video from trainings at
http://www.oregonemsc.org
EMS Pediatric Simulation Trainings 2008 - 2010

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Revisions

• Shift towards local control of planning and coordinating event, educational goals and objectives

• Two-day curriculum
  – Classroom-based simulation training (Day 1)
    • Skills Development
    • Use of video for visual learning enhancement
  – Systems-wide exercise (Day 2)

• Evaluative component
Goals

1. Understand the attitudes, needs, and barriers surrounding pre-hospital pediatric education for EMTs

2. Determine existing state-wide educational resources

3. Develop regionally specific educational curricular for rural pre-hospital and hospital providers utilizing high-fidelity wireless simulation

4. Train providers state-wide to meet their educational needs
Life Flight Network

Holly Love, RN
Director of Customer Service
EMS Pediatric Simulation Trainings 2008 - 2010

Photos and video from trainings at http://www.oregonemsc.org
Goals and Objectives

- Project Background
- Strategy for developing goals for trainings

Day 1
Goals & Objectives

1. Demonstrate a rapid assessment of a pediatric trauma patient.
2. Recognize potential serious injuries.
3. Anticipate need for critical care transfer.
4. Demonstrate prioritization of ABC’s with continued reassessment in the pediatric trauma patient.
5. Demonstrate effective management of airway and breathing for the pediatric patient.
6. Recognize the need for rapid IV/IO access
7. Demonstrate IV or IO technique in pediatric patients.
8. Demonstrate resuscitation of hypovolemic shock in the pediatric patient.
9. Demonstrate appropriate management of pain.
Day 2 OBJECTIVES

1. Roadside Triage of multiple patients
2. On-scene coordination and allocation of resources
3. Identification of critical injuries
4. Support of ABCs for pre-hospital personnel
5. Rapid Assessment and transfer of critical patients at Critical Access Hospitals
6. Regional coordination of communication and tracking of patients for MCI (Develop ATAB protocol)
7. Prepare summary evaluation of event with report of numbers of participants trained, identified areas of strengths and improvement, summary action plan to be shared among all agencies, used for future funding, shared with media and Capitol Hill
Goals

1. Strengthen our relationships with EMS

2. Review & practice our local community response to an MCI

3. Review & practice pediatric trauma
Objectives

1. Demonstrate a rapid assessment of a pediatric trauma patient.

2. Recognize potential serious injuries.

3. Anticipate need for critical care transfer.

4. Demonstrate prioritization of ABC’s with continued reassessment in the pediatric trauma patient.
Objectives

5. Demonstrate effective management of airway and breathing for the pediatric patient.
6. Recognize the need for rapid IV/IO access
7. Demonstrate IV or IO technique in pediatric patients.
8. Demonstrate resuscitation of hypovolemic shock in the pediatric patient.
9. Demonstrate appropriate management of pain.
Observations & Learnings

Drill Observations
1. Communication Issues
2. Equipment
3. Staffing

Learnings
1. Resource Hospital
2. Identify specific role responsibilities
3. Procedures for maintaining/replacing equipment
4. Need for frequent practice
5. Early activation of air transport
GOOD SHEPHERD PEDS SKILLS DAY/MCI EVENT

Rebecca Schwartz, RN
Good Shepherd Hospital
Hermiston, Oregon
• Initial call came in at 1010-Team Leader initiated Trauma Alert based upon mechanism and potential victims and alerted air transport
• 1040 Report of 2 immediate victims — victims arrived in same ambulance with no report
• 1052 Air arrived to assist
• 1100 2 additional victims arrived
Opportunities identified:

• Due to numbers of victims all 3 surgeons were called—one never responded

• Due to various issues we had no physicians available to participate—this left the ER nurse in each room as the only person to manage the patient and perform most of the duties. We had various helpers but were short on ER trained staff.

• Out of 36 staff contacted by ER call tree only 6 were able to respond—3 of those over 35 minutes away
Opportunities identified:

• Did not receive a report on the first 2 victims-had 2 immediate patients arrive at the same time—this can be very real due to multiple services transporting and communication issues that exist due to remoteness of area.

• Communication initially was a little rough, but was corrected quickly-determined early that our 450 emergency radio was never reconnected after our remodel—had to use a handheld which only picked up by the ambulance door
Opportunities identified:

• The staff were able to give the debriefing team the name of their patient

• Although leading the team was a shift for some of the nurses—they did well

• We were able to identify a child care needs number. As part of our disaster plan, we tell staff that we will provide daycare, but the number responding that will need child care has not previously been collected.
Opportunities identified:

• One of the regular main x-ray machines was down for routine maintenance, but DI had an alternate plan together quickly

• Although we were unsure of what we might be getting, the TL prepared to receive whatever might arrive
Challenges and Lessons Learned

- Challenges
  - Geography
  - Time
  - Coordination
  - Limits of technology
  - Participation
  - Funding

- Lessons Learned
  - Importance of partnerships
  - Importance of local participation in planning / development
  - Usefulness of video
  - Adjust expectations
  - Creative funding opportunities