Disclosures

I have no relevant disclosures

I do not have any commercial support

I do not endorse any specific product, service or system

Learning Objectives

Review	Review goals of debriefing, setting up a structure for success
List	List debriefing questions that facilitate team building and uncover system issues
Apply	Apply debriefing questions to video clips of simulation training sessions

Debriefing: The Basics

Definition

- Facilitated discussion of the events of a patient care situation to gain a better understanding of the events that occurred in order to improve care and team performance

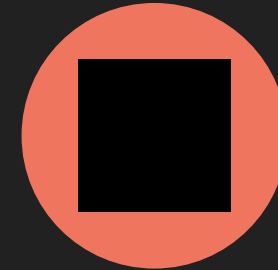- Can occur after training or actual patient event

Sources for Debriefing

LEARNING OBJECTIVES/METRICS

INTERESTING OR UN-ANTICIPATED EVENT DURING SCENARIO

QUESTION OR CONCERN FROM ATTENDEES DURING DEBRIEFING

HYPOTHETICAL SITUATION

Debriefing to Build Teams

- Key part of simulation-based training considered to be an integral part of achieving the goals of improved patient care and team building
  - Knowledge of environment
  - Anticipate and plan
  - Role delegation
  - Communication
  - Leadership
  - Situation awareness
  - Call for help
  - Maintain professional behavior

Team Skills Best Debriefed with Video

- Objective
- Allows attendees to view team skills
- Facilitates discussion about team skills

Video

EQUIPMENT EASY TO USE

MUST HAVE A CLEAR PLAN FOR HOW VIDEO WILL BE USED

MUST HAVE A CLEAR PLAN FOR HOW VIDEO WILL BE DESTROYED

SHARE PLAN FOR VIDEO WITH ATTENDEES

Debriefing Prerequisites

1 Consult with attorney and/or Risk Management to ensure all debriefings and findings are non-discoverable

2 Form for real event debriefing

3 Lead debriefers attend training for debriefing

4 Have a structure in place for evaluation of debriefers

Role of the Debriefer

Observation or recording of team actions to analyze how they impacted patient care

Comparison of performance to a checklist or cognitive aid

Metrics of key actions

Setting Up for Success

Investigate topic for concerns

Measurable learning objectives

Determine metric

Use a checklist

Units of measure that reflect performance

Metrics

- Metrics are measurements of process or system performance
  - Time help requested until time of arrival
  - Time medication requested until time medication is administered
- Goal of metrics
  - Validate that a process or system needs improvement
    - Collect data to support change, evaluate change, confirm improvement in system
  - Aid in identification of best practice

Checklists for Aviation

US Airways Engine Dual Failure Checklist

ENG DUAL FAILURE

1. → If no fuel remaining:
   a. THR LEVERS .... Confirm .... IDLE
   b. EMER ELEC PWR (if EMER GEN not on-line) .... MAN ON
   c. FAC 1 .... OFF then ON

   [Resetting FAC 1 enables the recovery of characteristic speeds displayed on the PFD, and enables rudder trim recovery, even if no indication is available. Once hydraulic power is lost, the right aileron is lost, and is in the up float position. Rudder trim may be used to compensate for this up floating aileron.]

   d. Optimum speed .... Green Dot
   e. Landing Strategy .... Determine

   [Determine most appropriate place for forced landing/ditching.]

   f. ATC (VHF1, HF1, ATC1) .... Notify
      (1) If unable to contact ATC on assigned frequency:
         (a) ATC Code A7700
         (b) Distress Message .... Transmit
            [Use one of the following frequencies: VHF 121.5 MHz, HF 2182 KHz or 8364 KHz]
   g. Oxygen Masks (above 10,000') .... Verify .... ON
   h. Go to step 2.
   → If fuel remaining:

→ If fuel remaining:
   a. ENG MODE Selector .... IGN
   b. THR LEVERS .... Confirm .... IDLE
   c. Airspeed .... Optimum relight speed 300 kts(CFM)/280 kts(IAE)

   (1) → If A319 or A320:

      [For airspeed indication failure (volcanic ash) the pitch attitude for optimum relight speed is 4.5°(CFM)/ 2.5°(IAE) nose down. Add 1° nose up for each 22,000 lbs. above 110,000 lbs.

   or

      CFM: At 300 kts, the aircraft can fly approximately 2.0 nautical miles per 1000 feet (no wind)

      IAE: At 280 kts, the aircraft can fly approximately 2.2 nautical miles per 1000 feet (no wind)]
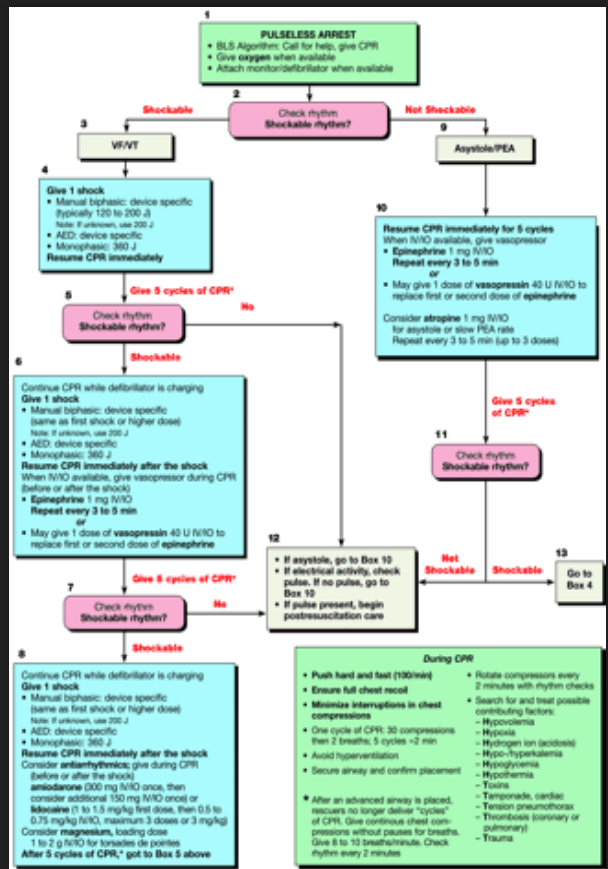
   → If A321:

      [For airspeed indication failure (volcanic ash) the pitch attitude for optimum relight speed is 4.5° nose down. Add 1° nose up for each 22,000 lbs. above 132,000 lbs.

      At 300 kts, the aircraft can fly approximately 2.0 nautical miles per 1000 feet (no wind)]

   d. Landing Strategy .... Determine
      [Determine most appropriate place for forced landing/ditching.]

Checklists for Healthcare…..

Case Example: Post-Partum Hemorrhage

Pre-Work: Investigate the Topic

Why was this topic chosen for simulation training?

What are the main issues with this topic?

QI

Interview nurses, physicians, CNM, techs, clerks

Sentinel events or near misses?

Measurable Learning Objectives

Shorter scenarios are easier to debrief, consider a max of 3-5 learning objectives

Narrow the focus of the training

What is the most urgent issue for staff training

What processes can be put into place to address the other issues that aren't covered in the training

Measurable Learning Objectives

- Know uterotonic medications
  - **Verbalize uterotonic medications in hemorrhage protocol and contraindications for use**
- Review massive transfusion protocol
  - **Verbalize key actions in massive transfusion protocol and role delegation for tasks to accomplish protocol**
- Assist with uterine tamponade device
  - **Set up and assist with uterine tamponade device insertion following process in protocol**

Measurable Learning Objectives

- Utilize good communication skills
  - **Team utilizes directed, closed loop communication for medication orders/administration, role delegation and all communication with the leader**
- Assume the leadership role
  - **Demonstrate leadership through announcing role, continued reassessment of patient/situation, and invitation of input from team**
- Avoid fixation errors
  - **Activate timer when setting up rapid infuser, when timer sounds inform leader on status of use of the equipment**
- Call for help early
  - **Call OB rapid response when bleeding measured at XXXml/presence of early warning criteria**

Metrics: Based on Learning Objectives

O Time uterotonic medication ordered to time correctly administered to patient

O Time uterine tamponade device ordered to time insertion begins

O Time uterine tamponade device insertion begins to time procedure successfully completed

O Time massive transfusion ordered to time blood enters patient room

O Time blood enters room to time patient begins to receive blood

Checklist

- Develop a checklist based on evidence-based protocol
  - Test protocol in simulation
  - Key actions placed into a checklist
- Checklist tested in simulation for usability and readability
- Assign team member to be responsible for checklist

PPH Checklist

Stanford HEALTH CARE STANFORD MEDICINE

PPH Checklist

Recognize | **Call for Help** | **Treat** | **Transfuse early**

STEP 1: CALL FOR HELP!

- ☐ Primary Provider
- ☐ Emergency response team for OB
- ☐ Assign nursing roles.
- ☐ Other :

STEP 2: IDENTIFY & TREAT CAUSE ~ Atony, Laceration, Retained Placenta, Coagulopathy

- ☐ Vitals q1-2 min
- ☐ PPH kit + PPH cart
- ☐ 100% oxygen
- ☐ Fundal massage
- ☐ IV fluids - high rate
- ☐ Urinary catheter
- ☐ 2 wide-bore IVs
- ☐ Uterotonics

Pitocin 1-2 unit boluses (anesthesiologist only) Max 40 u/500 mL (max rate 500 mL/hr)

Methergine 0.2 mg IM q2-4 hr
Hemabate 0.25 mg IM q15 min Repeat dose @
Misoprostol 600-800 mcg SL

Time given:

STEP 3: ASSESS MAGNITUDE
Phase 1 (first 5 - 10 mins)

- ☐ **Consider doing a RECAP now** VS, amt blood loss, cause of bleeding if known, actions completed in Step 2
- ☐ Send STAT labs (ABG, CBC, PT/PTT, INR, Fibrinogen, iCa, TEG)
- ☐ Activate Massive transfusion protocol
- ☐ Resuscitate using rapid infuser
- ☐ Assess QBL
- ☐ Intrauterine balloon placement

Phase 2 (10 - 15 mins)

- ☐ Early transfer to OR (if bleeding is ongoing) or IR (if bleeding ongoing + stable)
- ☐ Consider cryoprecipitate (or fibrinogen concentrate, RiaSTAP) and
- ☐ Consider tranexamic acid 1g IV
- ☐ Treat hypocalcemia
- ☐ Maintain normothermia

Debriefing Questions: Get to WHY

- What uterotonic medications are appropriate for this patient?
  - Determines knowledge base, explanation of why specific medication chosen illustrates decision making process for less experienced staff
- What are the key actions that need to be accomplished in the massive transfusion protocol (insertion of uterine tamponade device)?
  - What actions were accomplished for this patient?
  - What circumstances allowed the team to complete key actions?
    - **How can this be replicated in actual patient care?**
  - What circumstances prevented the team from completing the key actions?
    - What changes can the team make to complete key actions?
    - **How can this be replicated in actual patient care?**

Debriefing Questions: Get to WHY

- Communication
  - What information does the team need to communicate when medication is ordered (roles are assigned)?
    - What information was communicated by the team?
    - What circumstances allowed the team to communicate necessary information?
      - **How can this be replicated in actual patient care?**
    - What circumstances prevented the team from communicating necessary information?
      - What can the team do to ensure complete communication? How can the team consistently make sure closed loop (directed) communication is used?
      - **How can this be replicated in actual patient care?**

Debriefing Questions: Get to WHY

- Leadership
  - Red Flags
    - Several traditional 'leaders' may be involved in the scenario – how will team decide who the leader is OR how will patient management be coordinated if more than one leader
    - Consider adding a nurse leader role; physician/NP manages the patient but the nurse manages and organizes the room
      - GOAL: Anticipate and plan to reduce time between order and execution of the order, reduce errors of omission and commission

Debriefing Questions: Get to WHY

- Leadership
  - Did the team have a leader(s)?
    - How was the role of leader established?
      - How many tasks did the leader have?
      - What impact did that have on patient care?
      - How can the team assist the leader with multiple tasks?
    - If no leader, how did the absence of a clear leader impact patient care?
      - What actions can the team take if no clear leader has been established?

Debriefing Questions: Get to WHY

- Avoid fixation error
  - What effect did the timer have on using the rapid infuser?
  - What impact did the timer have on patient care?

Debriefing Questions: Get to WHY

- Call for help
  - What prompted the call for help?
  - What tasks/activities/roles need to be done by those coming to help?
    - What tasks/activities/roles were completed by those coming to help?
      - What circumstances led to those coming to help taking on (or not taking on) tasks/activities/roles?
  - How can the team make sure those coming to help are given appropriate tasks/activities/roles?
  - **How can this be replicated in actual patient care?**

Data from Debriefing

- Keep a list of:
  - System issues
  - Suggested solutions
  - Examples of best practice

Report back to Attendees

- Let attendees know what changes have been made due to findings from simulation training and debriefing

Case Example: Maternal Cardiac Arrest

Pre-Work: Investigate the Topic

Why was this topic chosen for simulation training?

What are the main issues with this topic?

QI

Interview nurses, physicians, CNM, techs, clerks, code team

Cases of cardiac arrest and outcome

Measurable Learning Objectives

Shorter scenarios are easier to debrief, consider a max of 3-5 learning objectives

Narrow the focus of the training

What is the most urgent issue for staff training

What processes can be put into place to address the other issues that aren't covered in the training

Measurable Learning Objectives

- Verbalize additional actions that need to be taken during *maternal* cardiac arrest
- Demonstrate correct placement of defibrillator pads, generation of a cardiac rhythm and defibrillation (if needed) using manual or AED mode on defibrillator
- State optimal location of emergency equipment in room to facilitate maternal and neonatal resuscitation
- Verbally clarify roles of leader, compressor, ventilator, crash cart/emergency med nurse, documenter/reader
- Assemble supplies for resuscitative perimortem within three minutes after pulselessness established
- Designate location for family in room or immediate area and notify support staff to be with family

Metrics: Based on national standards

- Time pulselessness established to time chest compressions started
- Time pulselessness established to time cardiac rhythm assessed and defibrillation (if needed)
- Time pulselessness established to time of resuscitative perimortem
- Percentage of effective chest compressions
- Peds/neonatal team present before birth
- Area for neonatal resuscitation designated and prepared for resuscitation before birth

Checklist

Debriefing Questions: Get to WHY

- Verbalize additional actions that need to be taken during *maternal* cardiac arrest
  - Were those actions accomplished for this patient?
  - What circumstances allowed (or prevented) the team from completing the actions?
    - What changes can the team make to accomplish all the actions?
  - **How can this be replicated in actual patient care?**
- Cardiac rhythm was evaluated and treated XX minutes after pulselessness established
  - What circumstances allowed(or prevented) the team to (from) evaluating and treating the rhythm within 3 minutes of established pulselessness?
    - What can the team do differently to meet the three minute standard?
  - **How can this be replicated in actual patient care?**

Debriefing Questions: Get to WHY

- Did the maternal and neonatal teams have sufficient room for resuscitation?
  - If no, could the room be organized differently?
  - What barriers did the team face when providing resuscitation to mother/baby?
  - **How can this be replicated in actual patient care?**
- What first responder roles are needed in maternal cardiac arrest?
  - What roles were assigned or assumed in this case?
  - What circumstances allowed (or prevented) all roles to be (being) filled?
    - What changes can the team make to fill all roles?
  - **How can this be replicated in actual patient care?**

Debriefing Questions: Get to WHY

- Were the correct supplies available for resuscitative perimortem by four minutes of established pulselessness?
  - What circumstances allowed (prevented) supplies being available to OB/ED MD?
    - What can team do to ensure supplies for resuscitative perimortem are available within 4 minutes of established pulselessness?
  - **How can this be replicated in actual patient care?**
- What happened to the family during resuscitation?
  - What circumstances allowed (prevented) the team to address (from addressing) the needs of the family?
  - **How can this be replicated in actual patient care?**

Data from Debriefing and Simulation

- Compile a report of findings and send to appropriate committees/departments
- Report changes made due to simulation to staff

Case Example: Debriefing Real Clinical Events

Debriefing Real Clinical Events

Concise – no more than ten minutes

Confidential

Clear strategy to identify issues

Debriefing Real Clinical Events

1 Designate events for debriefing

2 Designate a person to debrief, timer

3 Develop a form for consistency

Components of Form

- Date and time
- Staff that attended
- Brief synopsis of clinical event
- Issues:
  - Getting necessary staff, enough people, correct skills set
  - Issues with medication, blood, fluids
  - Issues with equipment
  - Opportunities for improvement? Challenges? Barriers?
  - Need to schedule a more in depth review, psychological debriefing?

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