

Is your ASC ready for a crisis? Simulation-based training in emergency management



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Objectives

To help you:

- Develop an internal emergency and disaster plan that addresses the risks of your ASC
- Implement simulation-based training using clinically-based scenarios
- Develop corrective action plans based on evaluation of your drills to improve the efficiency and effectiveness of emergency management

The ASC environment

- A variety of unexpected issues can lead to emergencies in Ambulatory Surgery Centers
- Rapid response teams or CODE teams are non-existent in the ASC environment
- Responsibility for emergency management relies on a lean staff wearing multiple hats

Defining simulation-based training for emergencies

Simulation-based training increases emergency preparedness through deliberate practice using clinically-based scenarios to represent “real world” emergency situations.



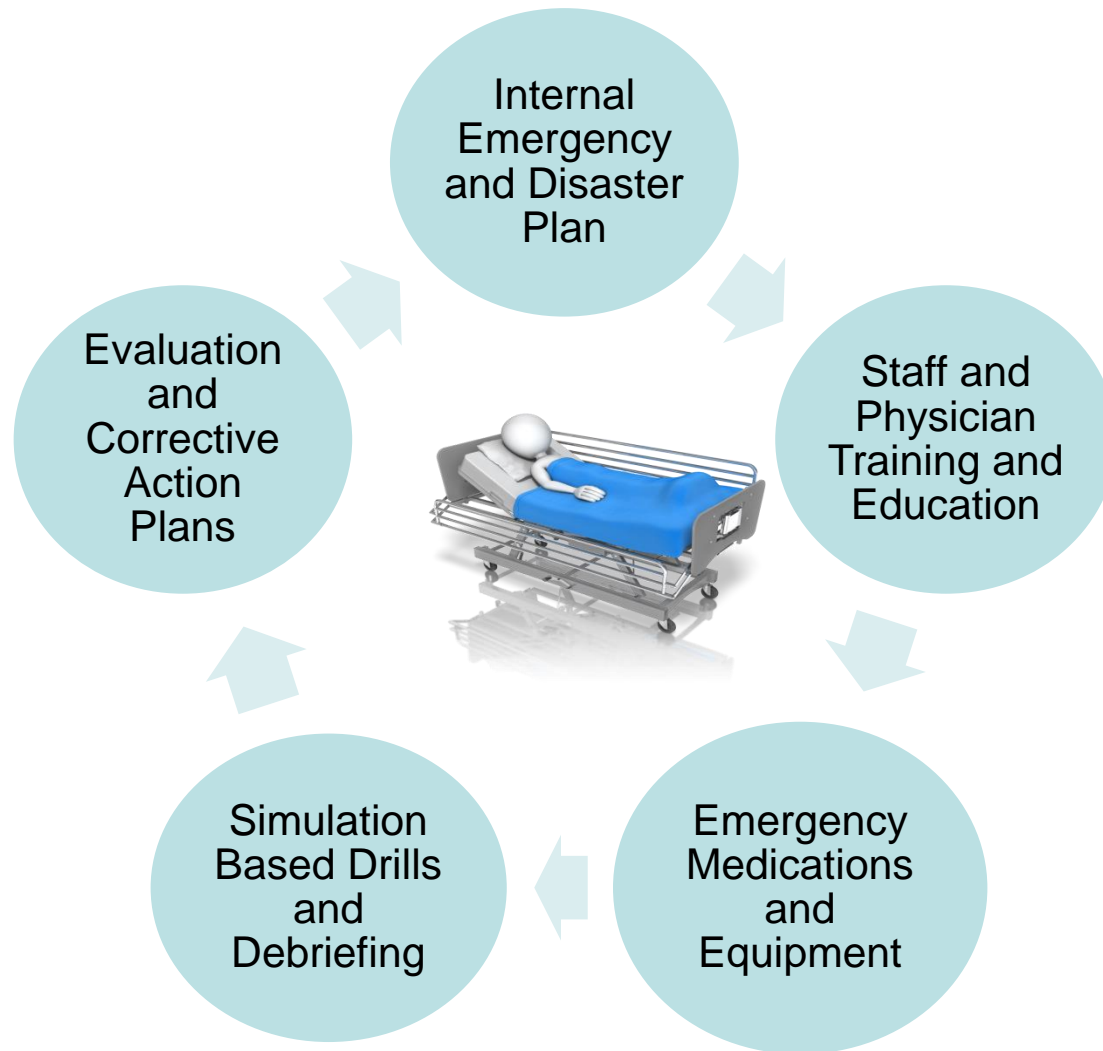
Benefits of simulation-based training

- Assesses internal emergency disaster plan and team's readiness
- Allows for the development and application of clinical and critical thinking skills
- Promotes team collaboration and communication skills
- Facilitates discovery of “broken” processes and problem solving through corrective action plans

Getting Ready



Addressing the elements of emergency management



Internal emergency and disaster plan

- Federal, state and local regulations
- Perform a risk assessment
- Review existing plan and relevant policies

| Risk | Possibility 0 - Not Likely 1 - Very Low 2 - Medium 3 - High 4 - Very High | Impact 0 - None 1 - Some 2 - Moderate 3 - Significant 4 - Severe | Score |
|------------------|--|---|-------|
| Cyber Attack | | | |
| Earthquake | | | |
| Facility Fire | | | |
| Flood | | | |
| Forest Fire | | | |
| Hazmat | | | |
| Hurricane | | | |
| Sabotage | | | |
| Terroist Attack | | | |
| Tornado | | | |
| Total Risk Score | | | |

Multiply Possibility by Impact to score

| |
|---|
| 0 - 25 Low |
| 26 - 40 Moderate - DRP / BCP should be considered |
| 40 - 60 Considerable - DRP / BCP highly recommended |
| 60 and up - http://www.e-janco.com/DisasterPlanning.htm |

Risk assessment

What types of emergencies should you consider?

- Patient factors or pre-existing conditions
- Medical interventions
- Facility issues
- Inclement weather

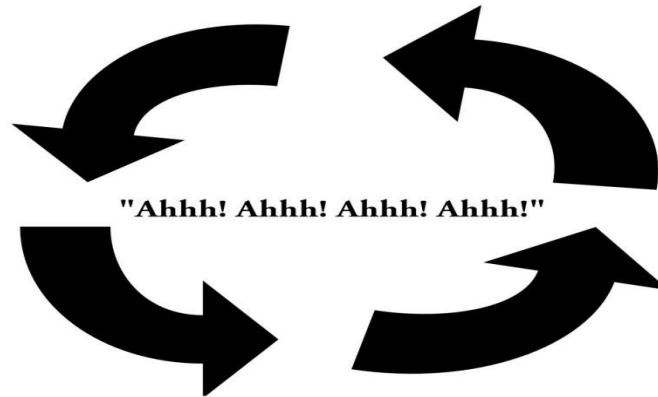
Risk assessment

- What roles have been assigned for emergencies? What is the chain of command?
- How do you notify staff of an emergency?
- Do you have an evacuation plan? Is it accessible?
- Is your facility equipped to handle fire trucks and ambulances at the point of entry?

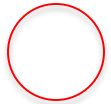
Reviewing your existing plan and policies

- Risk Assessment = Existing Plan
- Purchased plans vs. customized plans
- Safe evacuation plans

**IN CASE OF
EMERGENCY**



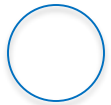
Annual calendar of emergency drills (example)



Fire



CPR



Malignant Hyperthermia



Tornado

January 2015

| S | M | T | W | T | F | S |
|----|----|----|----|----|----|----|
| | | | | 1 | 2 | 3 |
| 4 | 5 | 6 | 7 | 8 | 9 | 10 |
| 11 | 12 | 13 | 14 | 15 | 16 | 17 |
| 18 | 19 | 20 | 21 | 22 | 23 | 24 |
| 25 | 26 | 27 | 28 | 29 | 30 | 31 |

February 2015

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March 2015

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April 2015

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May 2015

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June 2015

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July 2015

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August 2015

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| 23 | 24 | 25 | 26 | 27 | 28 | 29 |
| 30 | 31 | | | | | |

September 2015

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| 20 | 21 | 22 | 23 | 24 | 25 | 26 |
| 27 | 28 | 29 | 30 | | | |

October 2015

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| 18 | 19 | 20 | 21 | 22 | 23 | 24 |
| 25 | 26 | 27 | 28 | 29 | 30 | 31 |

November 2015

| S | M | T | W | T | F | S |
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| 15 | 16 | 17 | 18 | 19 | 20 | 21 |
| 22 | 23 | 24 | 25 | 26 | 27 | 28 |
| 29 | 30 | | | | | |

December 2015

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| 13 | 14 | 15 | 16 | 17 | 18 | 19 |
| 20 | 21 | 22 | 23 | 24 | 25 | 26 |
| 27 | 28 | 29 | 30 | 31 | | |

Detail the calendar (example)

| | Fire | CPR | Malignant Hyperthermia | Tornado |
|---|--------------------------|---|------------------------|--------------|
| 1 | Waiting room | Patient in post-recovery | In the OR | During hours |
| 2 | OR/laser room | Incapacitated physician/ anesthesia provider | In post-recovery | After hours |
| 3 | Gas room with power loss | | | |
| 4 | Pre-procedure room | | | |

Tracking participants (example)

| Name | Title | Type of Drill | | | |
|----------------|--------------|---------------|------|------------------------|---------|
| | | Fire | CPR | Malignant Hyperthermia | Tornado |
| K. Cat, RN | Nurse | 1/5 | 2/19 | 3/19 | 3/2 |
| G. Staples, MD | Physician | 7/6 | 2/19 | 3/19 | 3/2 |
| R. Miller | PA | 4/6 | 8/20 | 9/17 | 11/12 |
| L. Dime | housekeeping | 4/6 | N/A | N/A | 3/2 |
| J. Holt | Front desk | 10/5 | 8/20 | 3/19 | 11/12 |
| S. Peterson | Manager | 7/6 | 2/19 | 9/17 | 11/12 |

Internal emergency and disaster plan

- ✓ Internal emergency and disaster plan customized to the needs of the ASC
- ✓ Yearly calendar of drills developed
- ✓ Participants for each drill identified, date assigned
- ✓ Tracked in personnel file

Training and education

✓ Check State Requirements

| | Fire | CPR | Malignant Hyperthermia | Weather related |
|--------------|-----------------------------------|--|--|--|
| Education | Basic fire safety | | Written protocol for recognition and treatment of malignant hyperthermia | <ul style="list-style-type: none"> • Evacuation plan • Weather alert |
| Training | Use of portable fire extinguisher | <ul style="list-style-type: none"> • BCLS • ACLS • PALS | | |
| Participants | All Staff | Depends on job description | All clinical personnel with direct contact | All staff |

Medication and equipment

✓ Check State Requirements



Drills: Keeping it real

- ✓ Using “real world” drill scenarios
- ✓ Identify roles needed
- ✓ Develop a plan to carry out drill
- ✓ Use an evaluation tool to provide feedback
- ✓ Debrief staff
- ✓ Create and implement a corrective action plan, if needed

Identify roles (CPR)

| Role | Responsibilities | Staff member |
|--------------|---|---|
| Facilitator | <ul style="list-style-type: none"> • Plans the drill • Evaluates the drill • Develops corrective action • Debriefs team | Administrator, nursing staff or medical staff |
| Runner | <ul style="list-style-type: none"> • Gets emergency equipment • Redirects patient flow • Gathers additional items | <ul style="list-style-type: none"> • Support staff • Unlicensed staff |
| Team Leader | <ul style="list-style-type: none"> • Gives order, directs team • Activates plan | Medical staff/Anesthesia |
| Responder | <ul style="list-style-type: none"> • BCLS/ACLS/PALS trained • Initiate AED/CPR algorithm | Nursing and medical staff/Anesthesia |
| Documenter | Records time and sequence of events | All staff |
| Communicator | <ul style="list-style-type: none"> • Communicates emergency to others in the facility/building • Gathers patients charts and prints face sheet • Greets emergency responders | Support staff |

Identify roles (fire)

| Role | Responsibilities | Staff member |
|--------------|---|--|
| Facilitator | <ul style="list-style-type: none">• Plans the drill• Evaluates the drill• Develops corrective action• Debriefs team | Administrator, nursing staff or medical staff |
| Runner | <ul style="list-style-type: none">• Gets fire extinguisher and other equipment• Redirects patient flow and assists with evacuation plan | <ul style="list-style-type: none">• Support staff• Unlicensed staff |
| Team Leader | <ul style="list-style-type: none">• Gives order, directs team• Activates evacuation plan• RACE | Medical staff/Anesthesia |
| Responder | <ul style="list-style-type: none">• Assists with activation plan• Contains fire• RACE | Nursing and medical Staff/Anesthesia |
| Documenter | <ul style="list-style-type: none">• Records time and sequence of events | All staff |
| Communicator | <ul style="list-style-type: none">• Communicates emergency to others in the facility/building; pulls fire alarm• Print surgery schedule and check in sheet• Greets emergency responders | Support staff |

Gather supplies

- Symbols of emergency and code words
- “Fake” support person, if appropriate
- “Fake” patient
- Equipment and medication



“Staging ” the scenario

- Place the “patient” or symbol identifying where the emergency will take place
- Provide instructions to staff about expectations
- Give name tags of roles, if appropriate
- Provide story line of emergency, if appropriate
- Facilitator calls out sequence of events
- Definitive start and stop

Example (CPR)



Case Scenario:

A 72 year old diabetic man with a history of COPD is in the recovery room after cataract surgery. Patient's surgery was uneventful and patient received 2mg of Versed IV for sedation prior to the surgery. IV still infusing. First vital signs are BP 90/48, pulse 102, respiration 36, O₂sat 90%.

- **Start:** nurse performing second post-op check
- Once the code starts, facilitator observes and evaluates:
 - Facilitator shows second post-op vital signs: BP 72/30 pulse 140 resp 46 O₂ sat 78%
 - 2 minutes later, facilitator says "patient codes" and is unresponsive
- **Stop:** 4 rounds of CPR, patient intubated, 1 round of AED

Example (Fire)

Case Scenario:

A 45-year old female with no significant medical or surgical history has been prepped for liposuction surgery of the abdomen by the nurse who performed an alcohol surgical prep on the patient. Patient is draped. Time out performed. Surgeon begins to cauterize the patient and the abdomen lights on fire. Patient receiving oxygen via nasal cannula.

Start: With fire on abdomen

Stop: Evacuation of patient to safety



Evaluation tool and corrective action plan

| | |
|--|---|
| Type of drill: | Date |
| Participants: | Facilitator: |
| Checklist of events: <input type="checkbox"/> _____ <input type="checkbox"/> _____ <input type="checkbox"/> _____ <input type="checkbox"/> _____ <input type="checkbox"/> _____ <input type="checkbox"/> _____ | Corrective Action Plan: <input type="checkbox"/> _____ <input type="checkbox"/> _____ <input type="checkbox"/> _____ <input type="checkbox"/> _____ <input type="checkbox"/> _____ |
| Debriefing <input type="checkbox"/> Yes <input type="checkbox"/> No | Date of completion of Corrective Action Plan: _____ Date Communicated: _____ |



Corrective action plan = QI study (CPR) (1)

| | |
|----------------------------|--|
| | |
| Purpose | The purpose of this QI study is to increase the staff's efficiency in accessing the medications, equipment and supplies within our "Crash" cart. |
| Goal | During a CPR event, the medications, equipment and supplies of the "crash" cart will be accessed within 3 minutes. |
| Current performance | During a recent emergency drill, it took 9 minutes for the staff to access the medications, equipment and supplies within the "crash" cart. |

Corrective action plan = QI study (CPR) (2)

| | | |
|-------------------------------------|--|--|
| Data collection and analysis | Crash cart: Interviewing staff: | <ul style="list-style-type: none">• 6/18 meds were expired• 5 sterile packages were “yellow”• Every drawer was overstuffed ----- <ul style="list-style-type: none">• 10/14 knew the location of the “crash” cart• 4/14 knew the location of the key for the crash cart• 2/14 knew the contents of the crash cart and its location• 3/14 knew the org policy on emergency mgmt |
|-------------------------------------|--|--|

Corrective action plan = QI study (CPR) (3)

| | |
|---------------------------|--|
| Corrective Actions | <ul style="list-style-type: none">• Performed a risk assessment of the potential and actual emergencies that occur• Reviewed the “crash” cart for expired medications and supplies• Removed or replaced all expired medications/supplies or not applicable medications/supplies (according to the risk assessment)• Placed key near the “crash” cart• Educated staff on the location of “crash” cart, its contents and key location during a staff meeting• Reviewed and updated emergency management policies; staff were given 2 weeks to read updated policy and attest to reading it. |
| Re-measurement | A CPR drill was conducted 2 weeks after the corrective actions were completed. During this drill, it took staff 2 minutes to access the medications, equipment and supplies of the crash cart. Goal was met. |
| Communication | The results of the QI study were reported to the MEC and governing body. |

Debrief staff

- ✓ Ask for suggestions to improve process
- ✓ Completed by the facilitator immediately after the drill
- ✓ 10 minutes of time and get feedback from all participants
- ✓ Sample questions:
 - *How do you think it went? (pros and cons)*
 - *What is working well?*
 - *What processes could be improved?*
 - *Suggestions for case scenarios in the future?*
- ✓ Compliment participants
- ✓ Incorporate suggestions into corrective action plan

Implementation of corrective action

- ✓ Timeline of events for implementation of corrective actions
- ✓ Communication to staff, physicians and governing body of any changes in processes or practice

Questions?



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