Video-Enhanced Debriefing during In-Situ Simulation: Tactics, Techniques & Procedures

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Disclaimer

- This workshop will focus on **in situ**, video-enhanced, post-event debriefing
- We do not advocate one specific device, manufacturer or method of conducting video-enhanced debriefing
- The Seattle Children’s Hospital **Synchronous Mobile Audio-video Recording Technology (SMART) Cart** is a proprietary system developed specifically for in situ video-enhanced post-event debriefing
<table>
<thead>
<tr>
<th>Topic</th>
<th>Format</th>
<th>Time</th>
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</thead>
<tbody>
<tr>
<td>Introduction and Background</td>
<td>Introduction- instructors &amp; participants</td>
<td>15 min</td>
</tr>
<tr>
<td>Capturing Teachable Moments on Tape: Integration of Learning Objectives and Videography</td>
<td>Large Group Interactive (lecture) – Taylor</td>
<td>10 min</td>
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<tr>
<td>Simulation Videography: Getting the Shots You Want</td>
<td>Large Group Interactive (lecture) – Don</td>
<td>10 min</td>
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<tr>
<td><strong>High-tech Solutions to in situ Video-enhanced Debriefing: SMART Cart</strong></td>
<td>Small Group Interactive Simulation:</td>
<td>40 min</td>
</tr>
<tr>
<td></td>
<td>• 1 group simulation participants</td>
<td></td>
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<td></td>
<td>• 1 group facilitates and debriefs using video</td>
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<tr>
<td></td>
<td>• Rest of group watches</td>
<td></td>
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<td></td>
<td>• Debrief x 2 with whole group</td>
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<tr>
<td><strong>Low-tech Solutions to in situ Video-enhanced Debriefing: iPad</strong></td>
<td>Large Group discussion</td>
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<tr>
<td>Final summary and questions</td>
<td>Large Group discussion</td>
<td>15 min</td>
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<tr>
<td><strong>Total Time</strong></td>
<td></td>
<td>90 min</td>
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Capturing Teachable Moments on Tape: Integrating Learning Objectives and Videography

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Learning Objectives

- Review basics of in situ simulation
- Summarize the importance of learning objectives in the development of simulation scenarios and debrief planning
- Discuss ways to ensure capture of ‘teachable moments’ on video
- Debriefing with video
In Situ Simulation
In Situ Simulation vs. Center-based Simulation

**Simulation center**
- Simulation often related to a curriculum or course
- Simulated environment
- Lower fidelity
- Video *relatively* easy to capture and use

**In situ**
- *On the job* simulation, and training
- Real environment
- Higher fidelity
- Many challenges in **capturing** and **using** video in situ
Uses of In Situ Simulation

- **Identification**
  - Systems issues
  - Latent hazards
  - Knowledge gaps

- **Rehearsal**
  - Infrequent and/or high-risk clinical scenarios

- **Training**
  - For staff in a realistic situation

Learning Objectives
Scenario Planning Worksheet (SPW)

This form is only to be completed when creating new simulation scenario(s). Please review the Scenario Abstract Library for existing scenarios which may meet your learning objectives. Complete the grey areas, save a copy, and click here to submit this worksheet as an attachment.

For requests related to urgent patient safety issues potentially needing simulation within 72 hours contact us. Email: simulation@seattlechildrens.org
Phone: (206) 987-SIMU

<table>
<thead>
<tr>
<th>Scenario Title:</th>
<th>Barcode Number: #</th>
<th>BARCODE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Simulator Type: --Select--</td>
<td>Age:</td>
<td>Weight: (kg)</td>
</tr>
<tr>
<td>Estimated length of this scenario: minutes</td>
<td>Scenario Author(s):</td>
<td></td>
</tr>
</tbody>
</table>

Scenario Abstract: (Scenario description including patient age, location, clinical history, presenting problem, expected interventions and resolution)

**Scenario Learning Objectives**

List 2-3 objectives in order of importance using behavioral terms, beginning with a actionable and measurable verb, such as Demonstrate, Identify. Refer to Simulation Information Manual (SIM) for Hospital, Surgery and Code Objectives.

<table>
<thead>
<tr>
<th>Metrics</th>
</tr>
</thead>
<tbody>
<tr>
<td>How will you know your learners have achieved their learning objectives? List your outcome metric for each learning objective on the left. Refer to Simulation Information Manual (SIM) for Hospital, Surgery and Code Metrics.</td>
</tr>
</tbody>
</table>

1. [ ]
2. [ ]
3. [ ]

For a list of hospital-wide learning objectives and metrics refer to Simulation Information Manual (SIM)

Hospital Policies and Standards
Examples of Learning Objectives of In Simulation

- Identification
  - Test code response system in a new facility

- Rehearsal
  - Demonstrate effective chest compressions and defibrillation

- Training
  - Education on new massive transfusion protocol
Capturing Learning Objectives on Video?

- **Identification**
  - Test code response system in a new facility

- **Rehearsal**
  - Demonstrate effective chest compressions and defibrillation

- **Training**
  - Utilize new massive transfusion protocol
Capturing Learning Objectives on Video?

- Identification
  - Test code response system in a new facility
Capturing Learning Objectives on Video?

- Rehearsal
  - Demonstrate effective chest compressions and defibrillation
Capturing Learning Objectives on Video?

- **Training**
  - Utilize new massive transfusion protocol
Debriefing with Video – Is it Helpful?

Figure 1 Outcomes of studies comparing alternative approaches to simulation-based debriefing. The figure summarises the results of seven studies, each focused on evaluating one of two key design features using one or more outcomes. The point estimates and 95% confidence intervals (CIs) reflect meta-analytic pooling when they refer to more than one study. Design themes are: (i) video versus non-video debriefing (a positive number favours video debriefing), and (ii) short debriefing (<15 min) with expert modelling versus long debriefing (>30 min) (a positive number favours short debriefing with expert modelling).
Debriefing with Video – Practical Tips

• Use *video sparingly*

• Use video as a segue into a discussion of a learning objective

• Use video to highlight observations of performance of a learning objective

• Use video to clear up disputes
Videos Obtained During In Situ Simulation

- Obtain permission/consent from each individual if:
  - Education
  - Public presentation
  - Maintained for any purpose

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*Witness: _______________________________________________________________________

Address: ____________________________________________

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Seattle Children’s Hospital
P.O. Box 50020/8-217
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Questions?
Simulation Videography: Getting the Shots You Want

Don Stephanian
Development & Design Manager,
Seattle Children’s Hospital, Learning & Simulation Center,
Seattle Washington, U.S.A.
In Situ Video-Enhanced Debriefing
Objectives

• Recording Options
• Playback Options
• How to choose
• Rules of Capture
In Situ Recording Options

[Images of various recording devices, including glasses, a tablet with a microphone, a smartphone, and a handheld camera]
In Situ Playback Options

http://www.secure.server.link.org/watch/in/your/jammies
What works best for you?

- Environment
- Learning objectives
- Time
- Budget
Tech Rules

- Know your equipment
- Come prepared
  - Charger, batteries, W/A lens, extension cord
- Use a tripod whenever possible
- Focus shot on the subject that matters
- Raise the lights
- Ace the audio
Questions?
Small Group Exercise
In Situ Video Enhanced Debriefing Practice

- 2 groups of simulation participants
- 2 groups of simulation facilitators / debriefers
- Simulation scenario?
  - Video taped
    - iPad
    - SMART Cart
- Video-enhanced debriefings:
  - iPad
  - SMART Cart
The Simulation Scenario – LEGO Challenge!

- Identification
- Rehearsal
- Training
The Simulation Scenario – LEGO Challenge!

- **Identification**
  - Crisis resource management skills
    - Establish clear **leadership**
    - Use **close-loop communication**
    - Use all available **resources**
In Situ Video Enhanced Debriefing Practice

- Simulation scenario x **5 Minutes**
  - Video taped
    - iPad
    - SMART Cart
- Video-enhanced debriefings using 2 devices
  x **10 minutes each**
  - iPad
  - SMART Cart