Cross-specialty Collaboration in Society Sponsored Organizational Performance Improvement

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Disclosures

Komal Bajaj, MD, MS-HPEd
• AHRQ National Advisory Council
• Board of Trustees, Center for Medical Simulation
• Advisory Board, Level Ex
• Consultant, The Debriefing Academy

Randolph H Steadman, MD, MS
• Royalties from UpToDate on unrelated topic
• Editor-in-Chief, ASA Simulation Editorial Board, 2006-2018
• Member, ACS-ASA Simulation Collaborative Planning Committee, 2022

Steven Houg, CAE, CHSE
• Nothing to disclose
Simulation + Debriefing

Why Simulation + Debriefing?

- Interprofessional
- Team-based
- Integrated into undergrad/graduate curricula
- Emerging regulatory levers
- Potential to promote health equity

Improves care
$7 saved for every training dollar spent

CLABSI reduction 74%

Fewer needle passes (1.79 vs. 2.78)

16% → 93% achieved minimum passing score

Self-Confidence 68 → 81

Original Research

Association of Simulation Training With Rates of Medical Malpractice Claims Among Obstetrician–Gynecologists

Adam C. Schaffer, MD, MPH, Astrid Babayan, PhD, Jonathan S. Einbinder, MD, MPH, Luke Sato, MD, and Roxane Gardner, MD, DSc
Key findings:

- Retrospective analysis comparing the claim rates before and after simulation training among 292 obstetrician–gynecologists

- Compared with presimulation training:
  - Malpractice claim rates were significantly lower postsimulation training (11.2 vs 5.7 claims per 100 physician coverage years)
  - Attending more than one simulation session associated with a greater reduction in claim rates. (6.3 [1 session], 2.1 [2 sessions], and 1.3 [3 sessions] claims per 100 physician coverage years)
Provision of Care, Treatment, and Services standards for maternal safety
Getting Ready for 2021 Joint Commission Perinatal Standards
Lessons From the Field

Veronica Lerner, MD, FACOG; Komal Bajaj, MD, MS-HPEd

Summary Statement: The new Joint Commission requirements on perinatal safety present a unique opportunity for the simulation community to actively engage with labor and delivery units nationwide. Considerations for implementation using “real-life” experience with the programmatic development of an in situ team-based simulation training program in obstetric emergencies are discussed. We urge simulationists to explore opportunities to promote culture change on a large scale to move the needle of maternal morbidity and mortality. (Sim Healthcare 00:00–00, 2021)

Key Words: In situ simulation, obstetrics, The Joint Commission, accreditation, patient safety, perinatal outcomes, team training.
HEALTHCARE DEBRIEFING: LINKING QUALITY, SAFETY, & WELLNESS
Use of a Surgical Debriefing Checklist to Achieve Higher Value Health Care

Michael R. Rose, MD¹, and Katherine M. Rose, MD²,³

54,003 cases ➔ 4523 events/defect (92 causing harm/critical)
Figure 2. Unadjusted 30-day surgical mortality: baseline through quarter 12 of the intervention (2009-2010). Unadjusted 30-day surgical mortality, which measures death during hospitalization for the index surgery, plus readmission with death within 30 days of surgery was used.
<table>
<thead>
<tr>
<th>Statement</th>
<th>Baseline (n = 156)</th>
<th>Post-Implementation (n = 132)</th>
<th>Top Peer (n = 69)</th>
</tr>
</thead>
<tbody>
<tr>
<td>&quot;I am encouraged to speak up about patient safety concerns that I have&quot;</td>
<td>72%</td>
<td>93%</td>
<td>100%</td>
</tr>
<tr>
<td>&quot;McLeod has a good safety climate&quot;</td>
<td>46%</td>
<td>90%</td>
<td>98%</td>
</tr>
<tr>
<td>&quot;I would feel safe being treated here as a patient&quot;</td>
<td>82%</td>
<td>89%</td>
<td>92%</td>
</tr>
</tbody>
</table>

*Note: A Top Peer of the 69 hospital surgical departments surveyed.*
Promoting Diagnostic Excellence Across the House of Medicine

ACOG
The American College of Obstetricians and Gynecologists

American College of Emergency Physicians
Cross-Specialty Collaboration in Society Sponsored Organizational Performance Improvement

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ASA Simulation Editorial Board

• Maintenance of Certification in Anesthesiology (MOCA®) simulation course:
  • Requirements established in 2006 in conjunction with the American Board of Anesthesiology
  • Course is at least 6 hours
  • Course participant to instructor ratio ≤ 5:1
  • Scenario themes that must be included:
    • Hypoxemia
    • Hemodynamic disturbances
    • Teamwork
Course Format

• Every participant takes a turn as anesthesiologist-in-charge for a scenario
• During other scenarios they observe, act as first responders and participate in the debriefings
ASA Simulation Editorial Board

• MOCA® simulation course goals:
  • Identify optimal care
  • Reflect on whether optimal care is currently provided in your practice
  • Develop an improvement plan that addresses gaps
  • NOT a performance assessment (NOT a test!)
Post Course Follow-up

• Within 3 days of the training, participants:
  • Evaluate the course
  • Submit 3 practice improvement plans

• Within 90 days of the training, participants:
  • Indicate whether their plans have been implemented: not at all, partially or completely
  • Indicate any barriers that were encountered
Practice Improvements Based on Participation in Simulation for the Maintenance of Certification in Anesthesiology Program

Randolph H. Steadman, M.D., M.S., Amanda R. Burden, M.D., Yue Ming Huang, Ed.D., M.H.S., David M. Gaba, M.D., Jeffrey B. Cooper, Ph.D.

ABSTRACT

Background: This study describes anesthesiologists’ practice improvements undertaken during the first 3 yr of simulation activities for the Maintenance of Certification in Anesthesiology Program.

Anesthesiology 2015, 122: 1154
Improvement Plan Categories

- Knowledge, 28%
- Teamwork, 30%
- System, 33%

Over 3 years: 2010-2012
1982 plans
Plan Completion

<table>
<thead>
<tr>
<th>Status</th>
<th>N</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fully completed</td>
<td>1,558</td>
<td>79%</td>
</tr>
<tr>
<td>Partially</td>
<td>310</td>
<td>16%</td>
</tr>
<tr>
<td>completed</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Not completed</td>
<td>114</td>
<td>6%</td>
</tr>
</tbody>
</table>
## Multivariable Analysis

<table>
<thead>
<tr>
<th>Predictor</th>
<th>Odds Ratio</th>
<th>95% CI</th>
<th>P value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Measurability</td>
<td>1.57</td>
<td>0.79-3.08</td>
<td>0.591</td>
</tr>
<tr>
<td>Experience</td>
<td>0.95</td>
<td>0.90-1.01</td>
<td>0.276</td>
</tr>
<tr>
<td>Total number of professions targeted per plan</td>
<td>1.29</td>
<td>1.06-1.57</td>
<td>0.036</td>
</tr>
</tbody>
</table>

Setting was dropped because $P > 0.20$ in univariable analysis.

A Bonferroni correction was made to account for multiple comparisons.
## Individuals Targeted by Plans

<table>
<thead>
<tr>
<th>Target</th>
<th>N</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Self</td>
<td>1,764</td>
<td>89%</td>
</tr>
<tr>
<td>Others</td>
<td>1,546</td>
<td>78%</td>
</tr>
<tr>
<td>Other Anesthesiologists/Anesthesia Providers</td>
<td>990</td>
<td>50%</td>
</tr>
<tr>
<td>Non-Anesthesia Physicians (e.g., Surgeons)</td>
<td>320</td>
<td>16%</td>
</tr>
<tr>
<td>Non-Anesthesia Non-Physicians (e.g., Nurses, Pharmacists)</td>
<td>525</td>
<td>26%</td>
</tr>
</tbody>
</table>

There can be multiple targets per plan. Percentages are based on total N=1,982 plans.
Leadership of the ACS AEI Program

Ajit K. Sachdeva, MD, FACS, FRCSC, FSACME, MAMSE
Director, Division of Education, American College of Surgeons

• Accredited Education Institutes 110 centers accredited throughout the world
• Accreditation involves site visit
• Conferences include annual Simulation Summit
• Joint Half-Day Sessions
• First scheduled for 2020
• Virtual sessions in 2021 and 2022
• Planning in person joint session in March 2023
Prior Joint Sessions - Virtual

• 2021
  • How Do We Restore and Advance the Value of Simulation-Based Training for the Future?
  • Themes emerged regarding what ACS and ASA can do
    • Joint activities
    • Joint advocacy
    • Joint certification
    • Joint financing
    • Joint scholarly activity
    • Joint statements
    • Joint training
Prior Joint Sessions - Virtual

• 2022 Keynote speaker: Kevin Weiss, ACGME, CLER Officer

• Breakout sessions addressed:
  • How can surgeons and anesthesiologists enhance communication and collaboration through simulations?
  • How can ACS and ASA facilitate these activities?
Simulation Summit Joint Half-Day Sessions

• Breakout groups addressed the following:
  • Ensuring effective, ongoing team communication during surgery
  • Conducting effective timeouts / huddles before surgery
  • Conducting effective timeouts / huddles postoperatively, for transfer of patients to PACU or ICU
  • Promoting effective interprofessional practice that includes OR staff, residents and others who participate in the surgical care of patients
  • Foster an understanding of each other’s roles / needs; learning how what you do impacts your colleagues
Future Directions

- ACS-ASA task force with 4 surgeons, 4 anesthesiologists, and administrative support
- Setting agenda for 2023 joint simulation summit
- Priorities:
  - Perioperative quality improvement
  - Joint faculty development / joint curricula
  - Joint instructional events / meetings
  - Multi-institutional collaboration

https://www.asahq.org/meetings/sen-summit
Conclusions

• We work as teams
• We need to train as teams
Operationalizing Simulation Activities
Staff Perspective

Steven Houg, CAE, CHSE
Senior Simulation Education Manager
Education Department
American Society of Anesthesiologists
We are ASA: Leaders in Patient Safety

**Mission:** Advancing the practice and securing the future

**Vision:** A world leader improving health through innovation in quality and safety

**Values:** Patient safety, physician-led care and scientific discovery

**Strategic Pillars**
1. Advocacy
2. Quality & Practice Advancement
3. Educational Resources
4. Member Growth & Experience
5. Leadership & Professional Development
6. Scientific Discovery
7. Financial Performance and Operational Excellence
Simulation-based education is within reach for the Medical Specialty Societies

- Link the work that members are already doing in their home institutions. Utilize existing resources.
- No requirement of a large capital investment by the society
ASA Support for Simulation Education Network

- Committee (Editorial Board for Simulation-Based Training)
- Funding and staff support for Committee Meetings
- Conference (Simulation Education Network Summit)
- Simulation-based Hands-On Workshops at ASA Annual Meeting
- Network Meetings (IMSH, Annual Meeting)
- Endorsement Applications – software portal and application management
- Online Community for Sharing Archiving Scenarios
Impetus for Innovation in Simulation

- Limitations associated with travel to simulation center
- Scheduling, time off work, and availability issues
- “Hot seat” can be uncomfortable in the live environment
- Desire for variety of educational and PI options
Educational Solution: Screen-Based Simulation

- Scenario-based eLearning modules created by ASA simulation experts and driven by ABA High Priority Topics and CAE Healthcare’s validated physiology engine in a virtual environment
- Deployed via the ASA Education Center (LMS)

CAE Healthcare Validated Physiology (Used in the Human Patient Simulation “HPS” Manikin)

SimTabs Virtual Environment
SimSTAT Data

- There are presently 5 modules
- >6000 learners started at least one of the modules
- They create > 100,000 sessions
- We’ve recorded about 2M user actions
- Measured 0.5B physiology data points

…and counting…
Opportunities for Specialty-Board Collaboration

• ASA and ABA collaborated in the early stages (planning stages)
• Several years have passed (we’ve been “doing”)
• It’s time to “study”

• ASA and ABA seek to collaboratively analyze SimSTAT data
  • Collaboratively we can achieve outcomes that a board or society could not achieve independently

• Examples of Proposed Research Areas:
  • Identify training needs based on behavior in simulations
  • Identify training interventions with high impact
  • Evaluate efficacy of this novel format
    • To what extent are participants learning?
    • How does screen-based simulation compare to other QI activities?
Cross-specialty Collaboration

• Involve experts from other specialties in activity planning
• Reference guidelines from other organizations where applicable
Future Opportunities for Collaboration

• Build on each other’s work and resources across specialty lines
• Interprofessional team training via screen-based simulation

https://asahq.org/simulation
In Summary

• Simulation is a robust tool that can be employed in ways that strongly improve performance and patient safety.

• Parallel activities across specialties represent opportunities for greater impact through collaboration.

• Simulation takes many forms. It can be feasible and sustainable for specialty societies.