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What's Trending in Healthcare Simulation

THE QUEST FOR QUALITY AND COMPETENCY



INTRODUCTION

No matter whether you are a seasoned professional in patient simulation or new to simulation-based training, we want to be your trusted source for the latest expertise and information in the field. Our goal with this eBook is highlight trending areas that we are seeing across the field. We have purposefully selected themes that we believe are important to your success—whatever your role might be in simulation.

Change is a constant in healthcare. With change, of course, comes disruption, new learning curves, and even potential patient risk. In the context of our mission of helping save lives, we believe that simulation is an optimal means for mitigating the impact of change. Through simulation, healthcare

practitioners can train in realistic circumstances and build competence before ever taking a human life into their care. As healthcare continues to change, we continue to develop solutions to prepare learners for real-world situations.

In each of the following chapters, you'll find information surrounding the latest trends in healthcare. There will be hyperlinks that you can follow to read additional content varying from articles to infographics to videos. If you like what you read, we hope you'll share it!

Thank you for reading and being part of a community that is working hard to improve healthcare quality for all.

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Embracing Competency- Based Training



*As we move forward into the new era of nursing education, **simulation is going to be a very significant part** of how students are able to demonstrate that they're meeting their competencies through their actions.*



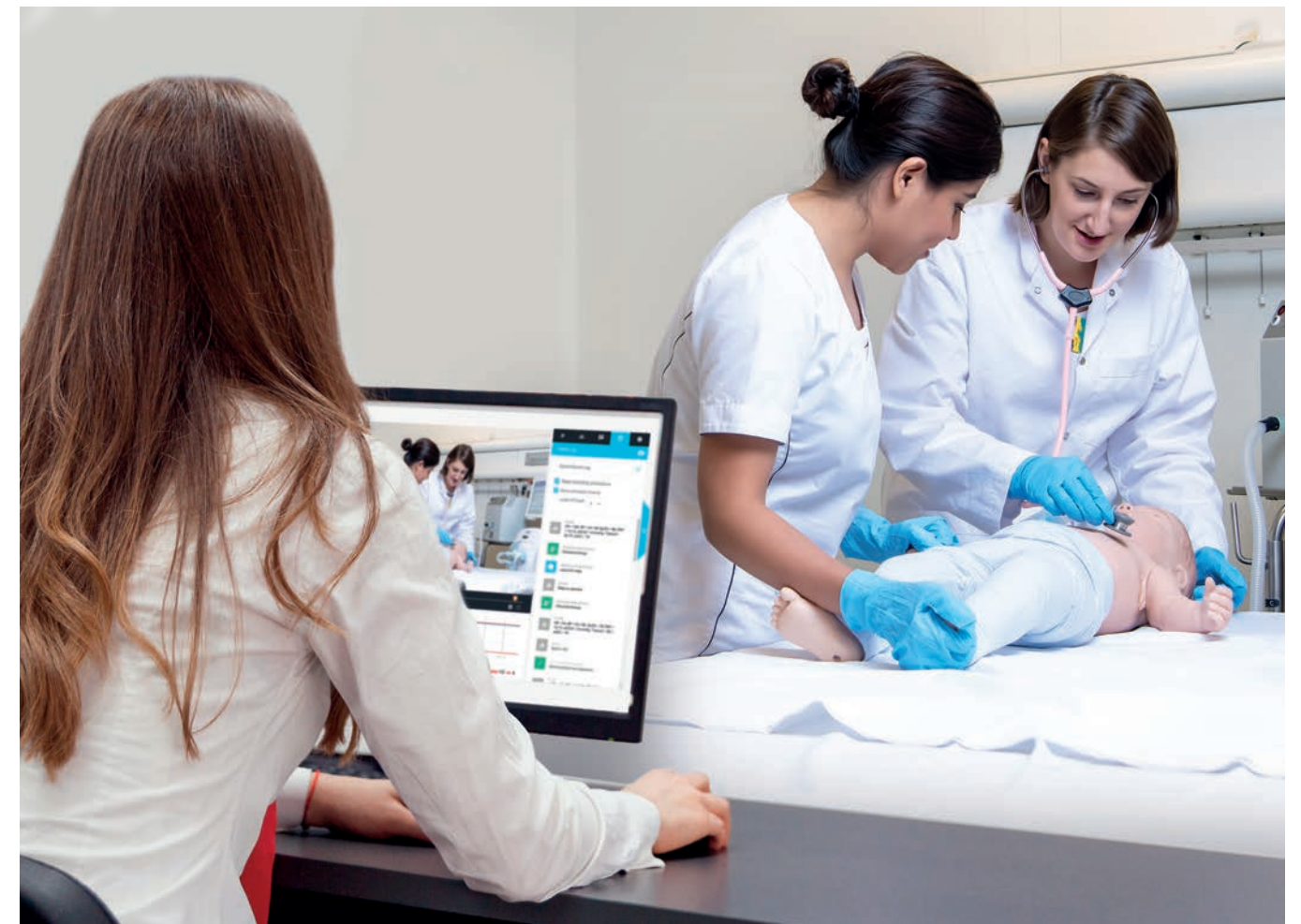
— Jocelyn Ludlow, PhD, RN, CHSE, CNE, CMSRN, HS
Associate Clinical Professor and Simulation Director at
the University of California, Irvine School of Nursing

Simulation is an effective tool for teaching and assessing competence.

At the heart of the shift to competency-based education (CBE) in nursing is for every new graduate nurse to possess the knowledge, skills, and attitudes they need to be successful from day one of their careers.

Simulation supports an approach to building and assessing competency that allows students to “walk before they run.” From fundamental skills-building with task trainers to honing complex decision-making through high-fidelity scenarios, simulation covers the full spectrum of competencies. A simulation management system can help develop, track, and verify competence across every stage of learning.

Explore Laerdal’s [collection of curated CBE resources](#), intended to help you use simulation to embrace CBE.



SimCapture and SimBaby™



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Providing Equitable, Patient-Centered Care



Simulation is a great conduit for us to prepare our learners to view themselves as advocates for health equity.



— Dr. Crystal Murillo, PhD, RN, CHSE-A, ANEF, FAAN
Assistant Dean of Simulation and Assistant
Professor at the University of South Carolina

Simulation can help your learners develop cultural competence.

Simulation can prepare your learners to provide equitable care to patients from diverse backgrounds. The role of healthcare equity in simulation curricula ties back to the common goal that all healthcare providers should share: *quality healthcare for every individual.*

[According to experts](#) who are using simulation to build cultural competence, this means:

- Designing simulations to reflect the goal of quality healthcare for everyone – from conceptualization to evaluation
- Being clear and purposeful about what you want your learners to gain through the simulation experience
- Ensuring repeated exposure to simulation to increase comfort with sensitive topics



[Nursing Anne Simulator](#)

To learn more, explore our eBook: [How to Use Simulation-based Training to Reduce Implicit Bias and Promote Equitable Care](#). Plus, download our checklist of [10 expert-provided tips](#) for using simulation to promote equitable care.

Empowering New Nurses During Residency

50% of New Graduate Nurses (NGNs) miss signs of life-threatening conditions.¹

Simulation can help nurses transition to practice safely and effectively.

The transition to practice has been described as one of the most tumultuous times in a New Nurse Graduate (NGN)'s career. However, research shows that NGNs who've been given support and tools to navigate this difficult period are ultimately able to complete their transition successfully.²

[Experts in healthcare agree](#) that simulation plays an integral role in preparing NGNs for their transition to the workforce. Simulation has been shown to be highly effective for building competency, confidence, and readiness for practice.

Download our [eBook: How Simulation Can Help Prepare New Nurse Graduates](#) to explore how simulation can help empower your NGNs with the skills and confidence they need to make a safe and effective transition to the bedside.



[Nursing Anne Simulator Male](#)

The World Health Organization estimates that there will be a shortage of

4,500,000

nurses by 2030.³

Supporting new nurses through simulation can reduce turnover and improve retention.

Nurses today are struggling with burnout. [New graduate nurses \(NGNs\) are struggling the hardest.](#) Younger nurses are twice as likely to feel burnout than their more senior counterparts.⁴ And, 24% of nurses intending to leave the workforce are new nurses – a dramatic difference from previous years.⁵

Simulation as part of a residency program has been shown to reduce turnover.⁶ By giving your nurses the opportunities they need to build their skills and confidence, you can set them up for a lasting and successful career journey at your organization.

Did You Know?

RNs report wanting to spend more than double the amount of time on growth and development activities.⁷ Some hospitals are [turning to Virtual Reality \(VR\) simulation](#) as a flexible and cost-effective option to help increase opportunities for nurses to refine essential patient care skills in an immersive and realistic virtual environment.



[Nursing Anne Simulator](#)

Reducing Risk during Childbirth

Simulation training has been shown
to reduce malpractice claim rates
in obstetrics by nearly

50%⁸

Simulation can help [keep mothers and babies safe.](#)

Caring for two patients, the mother and the baby, creates double the possibility for complications and requires twice the amount of patient monitoring. Adverse obstetric events occur in 9% of deliveries, and at least [30% of these](#) are preventable.⁹

Simulating low-frequency, high-acuity events like [postpartum hemorrhage](#) can make a major difference in mitigating risk and improving care quality. Simulation has been shown to [significantly lower malpractice claim rates](#) for OB/GYNs.¹⁰ This is largely due to simulation's ability to strengthen teamwork during high-acuity emergencies.

From low-fidelity task trainers to high-fidelity birthing simulators, simulation can provide critical opportunities for deliberate practice at [all levels of learning](#).

Download our eBook: [How Simulation Can Reduce Patient Risk](#) to learn how you can use simulation to reduce risk and improve outcomes – not only in obstetrics, but across every area of your hospital.



Improving Quality Care of Critically Ill Preterm and Newborn Babies

Simulation has been shown to
improve perinatal morbidity by

37% ¹¹

Simulation can help create high-performance NICU teams.

Effective teamwork is critical in the NICU environment, where delicate patients could need emergency care at any moment.¹² Poor communication is a root cause of over 72% of perinatal deaths and injuries.¹³

Simulation-based team training in neonatal resuscitation has been shown to improve team performance.¹⁴ A 2024 study found that a simulation-based interprofessional education program effectively improved teamwork, communication, attitude, and clinical performance of NICU teams.¹⁵

Download our eBook: [Using Simulation to Improve Team Performance in Your NICU](#) for a practical list of tips and tools to help you use simulation to achieve high-reliability status with your NICU team.



SimNewB®

About 13.4 million babies were born premature
in 2020 – which is around

1 in 10

of all live births.¹⁶

Increased realism in simulation can help elicit a true emotional response in learners.

Preterm birth complications are the leading cause of death in children under the age of 5 years.¹⁷

High-quality simulation training can help providers prepare for low-frequency, high-risk premature birth emergencies. An optimal simulation training experience creates a connection that elicits genuine emotional reactions from participants. The result is heightened engagement, empathy, and adaptability. This is known as “[high-emotion simulation](#).”

A [lifelike premature baby simulator](#) with realistic skin and hair, precise anatomy, and true-to-life pathologies can transform a simulation into a full sensory experience. When the training experience is as genuine as possible, learners can better recall what they learned when faced with the same situation in real life.



Paul



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Preventing Harm through Systems Improvement



*Anyone involved in healthcare knows that no matter how good our individuals are, or even how good our teams are, **we ultimately fall or rise to the level of our systems.***

— Dr. Victoria Brazil, Professor of Emergency Medicine and Director of Simulation, Bond University, Queensland, Australia



Approximately

44% to 66%

of adverse events could be prevented by identifying and correcting Latent Safety Threats, or “accidents waiting to happen.”¹⁸

Mitigating latent safety threats can protect patients from harm.

Latent safety threats (LSTs) are often referred to as “accidents waiting to happen.” LSTs are system issues that aren’t immediately apparent and can make it easier for healthcare providers to make errors.

There is increasing recognition of the use of in situ simulation, or simulation that occurs in the real healthcare environment, as a powerful quality improvement tool for uncovering LSTs.¹⁹ Because it takes place in the actual clinical setting, in situ simulation can lend a unique opportunity to uncover LSTs involving a hospital’s own equipment, space, processes, and protocols before they ever reach a patient.

Hospitals have leveraged in situ simulation to identify and remedy LSTs in areas including teamwork, knowledge gaps, medication safety, and protocol inefficiencies. Read more in our article: [How Simulation Can Uncover Latent Safety Threats.](#)



Building Competence in Critical Care

Inadequate handovers, or transitions of care, are a factor in

80%

of all adverse events.²⁰

Effective teamwork and communication are especially crucial in the ICU.

An estimated 1 in 5 Intensive Care Unit (ICU) patients experience patient harm – a higher rate compared to other healthcare settings.²¹ Communication errors are among the most frequent causes of patient harm.²² An estimated 67% of communication errors involve handoffs or the transition of care from one provider to another.²³

Using simulation as part of teamwork and communication training has been shown to increase a provider's communication of crucial information during handoffs.²⁴

In situ simulation, or simulation conducted in the actual environment, can get you even more. In situ simulation provides a risk-free opportunity to assess and

improve handoff communication and teamwork in the actual work setting. [Experts agree](#) that in situ simulation is a key component of team training.

A tetherless critical care simulator designed specifically for in situ simulation can help facilitate multidisciplinary scenarios that span across the transition of care, from pre-hospital to the ICU.

To help you make the most of your in situ simulation efforts to build preparedness in the ICU, download our checklist: [7 Tips for Effective In Situ Sim.](#)



SimMan® Critical Care

Chronic respiratory disease is a **growing global problem.**

The morbidity and mortality rates associated with chronic respiratory diseases (CRDs) are on the rise, indicating an [escalating healthcare challenge](#). Chronic respiratory disease is the 3rd leading cause of death globally.²⁵

In respiratory care, errors made during critical situations, like difficult airway management, can have severe consequences for the patient.²⁶

An immersive simulation environment allows healthcare professionals, students, and respiratory care teams to engage in realistic scenarios, replicating critical situations related to respiratory distress, chronic conditions, or acute respiratory failure. Through deliberate practice in a simulated environment, individuals can refine their decision-making skills, enhance clinical competence, and develop effective communication strategies to deliver optimal respiratory care in diverse and challenging clinical settings.





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Managing Simulation Effectively and Efficiently



*Your data really does tell a story. **But you have to be able to read what the data is telling you** – and then do something with it.*



— Rosemary Samia, MSN, RN, CNS, CHSE
Director, Center for Clinical Education & Research,
University of Massachusetts Boston

Your simulation data is gold.

From smartphones to smart homes, our daily lives are permeated with devices that not only provide convenience but also collect vast amounts of data. A simulation management system like SimCapture is no exception.

SimCapture collects an abundance of data – data that can turn your sim center into a smart center and thereby deliver better learning outcomes.

The idea of diving into large amounts of data might be daunting. But when this data is easily organized into actionable insights for you, you may find that looking at the data becomes empowering instead of intimidating.

Explore how data can help you turn your sim center into a smart center in our article: [Turn Your Sim Center into a Smart Center and Deliver Better Learning Outcomes.](#)



SimCapture

Studies suggest that humans forget approximately

50%

of new information within
an hour of learning.

That rate goes up
to an average of

70%

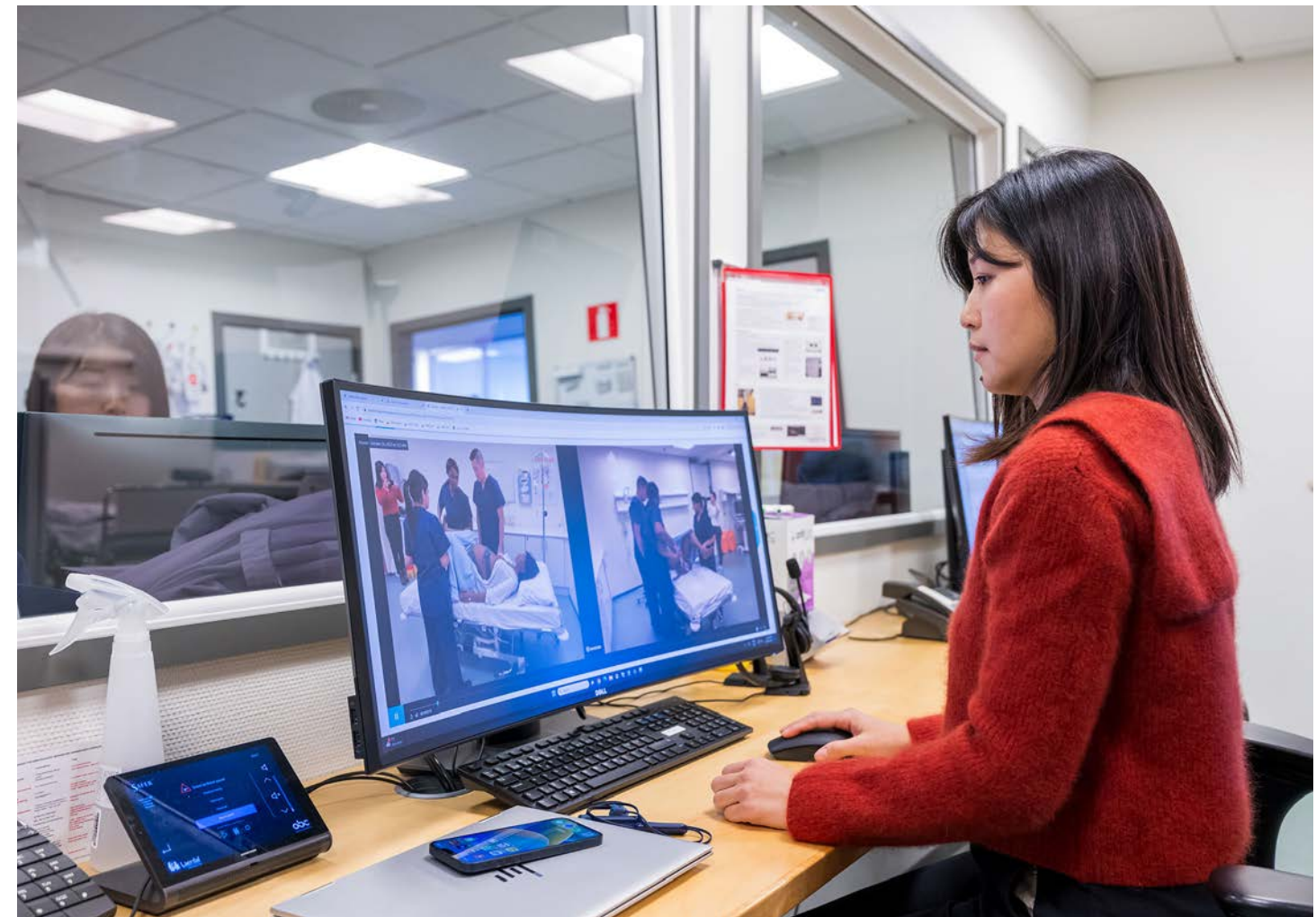
within 24 hours.²⁷

Video can help you enhance your debriefing efforts.

The rate at which a person forgets depends on several factors including memory strength, the significance of the material, and physiological factors such as stress. But therein lies the problem. No one's memory and no one's response to these factors is the same.

Clinical simulations are powerful in part because they create stories for learners – stories that can augment and, in some cases, replace real-world experiences. But what if everyone remembers their own version of the story?

Using video-assisted debriefing with SimCapture can help address this “forgetting curve.” Read more in our article: [The Forgetting Curve: Plus Five More Reasons Why You Should Be Using SimCapture for Debriefing.](#)



SimCapture

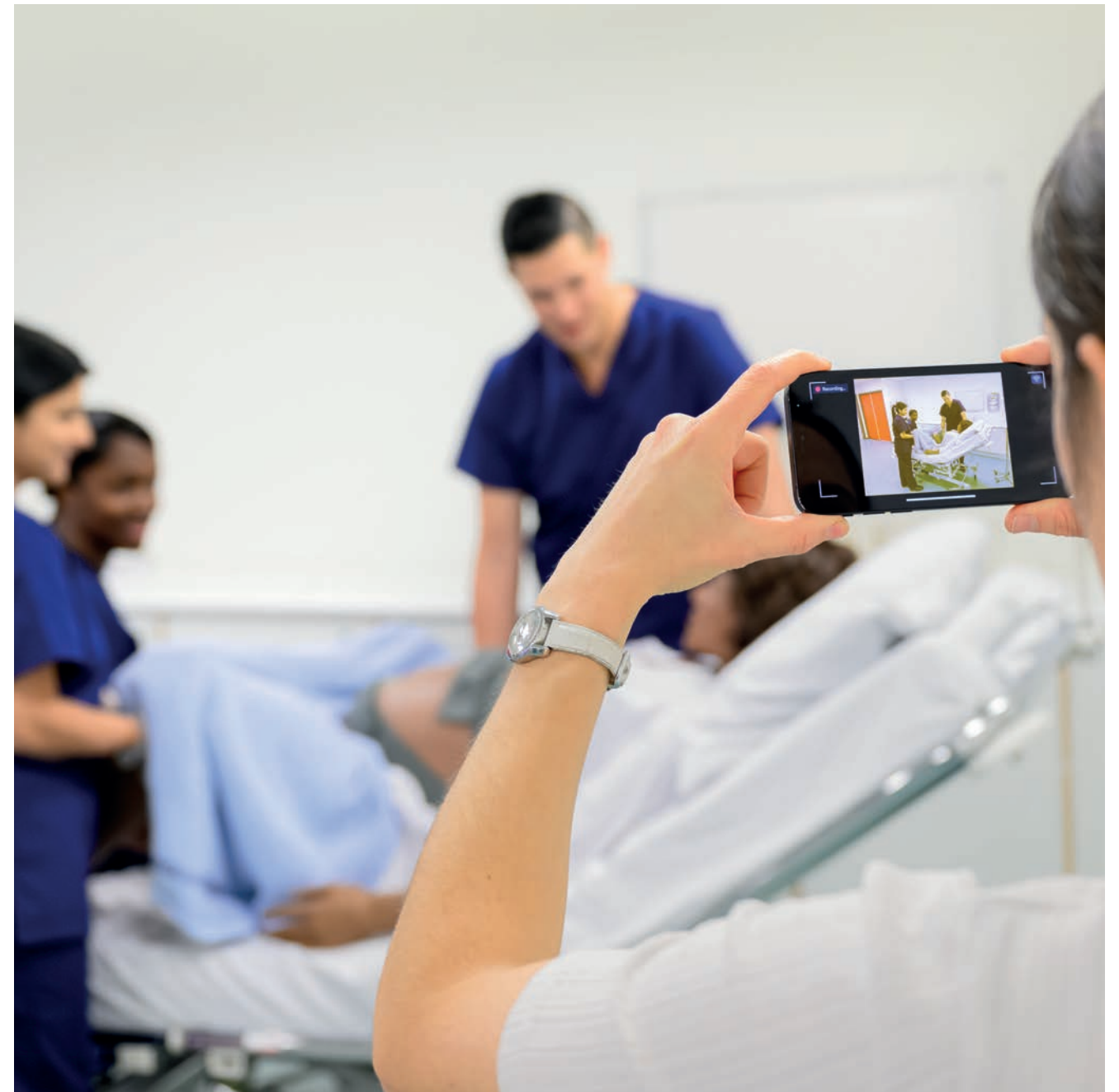
A simulation management system can help you assess competence more easily.

You undoubtedly know the pride that comes from seeing your learners achieve career-level competency. But you may find yourself overwhelmed with the administrative, operational, and budgetary burdens associated with clinical assessments – things that can take some of the joy out of teaching. If you are not equipped to manage these tasks easily and efficiently, your main task of assessing learner competency can seem daunting.

A simulation management system like SimCapture can help make the process easier, in ways including:

- Ensuring objectivity
- Managing and reporting results
- Providing learner feedback
- Saving time and money
- Tracking performance trends and identifying anomalies
- Bridging the gap between theory and practice
- Maintaining accreditation

Read more in our article: [Assessing Clinical Competency: 7 Ways SimCapture Can Make Your Winning Efforts a Bigger Win.](#)



The Current and Future Scope of Global Simulation



*[The Global Consensus Statement on Simulation-Based Practice in Healthcare] not only marks a milestone to reflect on what has been accomplished through healthcare simulation in a brief period but also serves as **a sober reminder of the journey ahead to fully realize simulation's potential in enhancing patient safety and improving patient outcomes.***²⁸



— Barry Issenberg, MD, FSSH, Director, Gordon Center for Simulation and Innovation in Medical Education, Professor of Medical Education | Senior Associate Dean, Continuing Medical Education and Research in Medical Education, University of Miami, Miller School of Medicine

The Global Consensus Statement on Simulation is a “North Star” to guide you forward in your simulation efforts.

In May 2024, the Society for Simulation in Healthcare (SSH) and the Society for Simulation in Europe (SESAM) released an important document: the Global Consensus Statement on Simulation-Based Practice in Healthcare.

The Consensus Statement aims to offer a global view on the current scope of simulation-based practice and gain consensus on future directions.

Read 3 key highlights, along with some tips that may help you embrace the Statement’s recommendations, in our article: [Highlights From the Global Consensus Statement on Simulation-Based Practice in Healthcare.](#)



A Final Word

When Alia was born, she wasn't breathing. But Alia was lucky. Her midwife, Dorcas, had been trained with Laerdal Global Health's [Helping Mothers and Babies Survive](#) programs, and knew what to do. Dorcas began resuscitation immediately. Before long, she heard a sound that lifted her heart – Alia's first cry.

Our mission at Laerdal is Helping Save Lives. Our vision is that no one should die or be disabled unnecessarily during birth or from sudden illness, trauma, or medical errors. Our goal is to help save an additional 1 million lives annually by the year 2030.

We pursue our mission, vision, and goal by supporting you with the best education, training, and quality improvement

strategies possible. We measure our results through yours, keeping a keen eye on your key performance indicators and your desired outcomes. By giving you the tools necessary to incorporate simulation into your training efforts, our intent is to help you improve healthcare quality and empower your current or future caregivers to save more lives.

Learn more about our [commitment to helping save one million more lives](#), every year, by 2030.

We want to support your efforts. Reach out to your Laerdal representative today to discuss how we can help you meet your training goals and make a positive impact on patient outcomes.



Want more content like this?

Explore our collection of educational content at
Laerdal.com/ResourceLibrary



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