Question 1:

The Total Strategies & Tools to Enhance Performance & Patient Safety (TeamSTEPPS) program has been shown to increase quality and safety and reduce medical errors. Many hospitals are requiring staff to have this training yearly to improve quality and safety. Has inclusion of interdisciplinary simulation with nurses and attendings in this training been shown to reduce medical errors or identify systems issues?

Response from Dr. Satin:

Quality and safety programs are often multifaceted and it is often hard to determine the contribution of each component to the overall improvement in quality and safety. Teamwork and communication is a critical element of patient safety and improves with team-based simulations. In terms of clinical outcomes, interdisciplinary-based simulations on labor and delivery have been shown to reduce time from decision to incision and decision to delivery. The American College of Obstetricians and Gynecologists asserts that a protocol with standardized interventions and onsite drills will improve care given in an emergency. By simulating emergencies, teams can learn and practice required interventions, improve efficiency, and reveal and ultimately reduce errors.

In a randomized controlled trial, team training focused on shoulder dystocia and perimortem cesarean delivery, simulation improved team performance and technical skills. A team-based simulation curricula including eclampsia, postpartum hemorrhage, shoulder dystocia, and breech extraction was used to identify common mistakes in management and ultimately served to modify and improve training. In an analysis of teamwork behaviors as related to eclampsia management, teams that are more efficient are likely to exhibit certain team behaviors such as recognizing and verbally declaring the emergency, and managing the critical task of closed-loop communication.
Question 2:

Is it better to perform simulations in the participants’ own setting, both to make the scenario real and to identify individual hospital system problems of flow that may not necessarily arise in a simulation center?

Response from Dr. Satin:

There are pros and cons to performing simulations in a simulation center compared with in situ. A number of reports attempt to address the relative advantages of each location. Simulation centers allow institutions to consolidate very costly simulation resources such as high-fidelity mannequins, realistic operating rooms, and anesthesia and critical care equipment. Simulation centers are separate from clinical areas and most often are in buildings physically separate from hospitals and birthing centers. Centers may facilitate interdisciplinary and multilevel training and provide a core of technical support. Centers allow participants to focus on the tasks and not be distracted by the real time needs of their clinical units. Alternatively, the logistics of going to a simulation center may be a barrier to attendance and may not optimize team performance for a specific condition on a specific unit. The trend in the literature is to show an advantage to simulation in either setting, with no universal advantage for location.

Question 3:

Is it better to plan a simulation or to have impromptu simulations?

Response from Dr. Satin:

In our experience, it is better to plan simulations with the design focusing on who your learners are and what you want them to learn.

Question 4:

Simulation training on a low-fidelity pelvis has been shown to reduce the morbidity and mortality of forceps delivery. As the number of forceps deliveries are decreasing, should a curriculum be developed for all residencies to have this training beginning in the intern year?

Response from Dr. Satin:

Residents and their patients will benefit from simulations focused on operative vaginal delivery including forceps delivery. The ideal time to initiate training may vary with the clinical experience offered to trainees. At Johns Hopkins, we introduce this training in internship.

Question 5:

Should all residencies have shoulder dystocia simulation training on a low-fidelity pelvis starting in the intern year as well?

Response from Dr. Satin:

Based our review of the literature, Johns Hopkins, Columbia, Cornell, Yale, and the University of Rochester (MCIC Collaborative Group) require shoulder dystocia simulation training for all trainees and attendings at initiation of employment and every 2 years thereafter.

Question 6:

Shoulder dystocia is such a large area of litigation of obstetrics. In many of these cases, is documentation and disclosure has been shown to be deficient. Should documentation and disclosure be included in a shoulder dystocia simulation?
Response from Dr. Satin:

At our institution, we include documentation and communication in our shoulder dystocia simulation-training program.

Question 7:

With the numerous demands on their time, it can be difficult for faculty to attend simulation training sessions. How do you maximize faculty participation in these sessions?

Response from Dr. Satin:

Leadership support is key in maximizing faculty participation. Additionally, we mandate shoulder dystocia simulation for all health care providers performing deliveries.

Question 8:

The American Board of Obstetrics and Gynecology (ABOG) has approved simulation for part of its maintenance of certification process. Has it incorporated simulation in the general board examination?

Response from Dr. Satin:

Currently, the basic certifying examination may include the use of a low-fidelity pelvis and baby doll. A more sophisticated pelvis is scheduled to be introduced into the Female Pelvic Medicine and Reconstructive Surgery Certifying examination in 2018–2019.

Question 9:

Has simulation-based training in obstetric hemorrhage been shown to decrease postpartum hemorrhage morbidity and mortality in the United States?

Response from Dr. Satin:

The best data for using simulation to reduce morbidity and mortality from postpartum hemorrhage comes from Norway. The Norwegian group found an association with simulation training and a reduction in the rate of red blood cell transfusion, curettages, and uterine artery embolization. The authors suggest that simulation leads to an increase in competence among health care professionals resulting in improved clinical outcomes.