Analysis will examine safety of in-hospital underwater births

7 June 2012

One of the first systematic examinations of the safety of in-hospital underwater births in the United States commences this month, when Regenstrief Institute fellow Jeanne Ballard, M.D., an obstetrician/gynecologist with more than 16 years of experience delivering babies, collaborates with Regenstrief investigator Michael Weiner, M.D., MPH to put the tools of medical informatics and outcomes research to work to improve reproductive health care.

As the clinical component of her medical informatics fellowship at Regenstrief, Dr. Ballard practices as an obstetrician/gynecologist with HealthNet, a community-based, federally qualified health center in Indianapolis. HealthNet offers underwater birth to low-risk patients. These deliveries are performed by midwives.

"Proponents of natural childbirth believe that water birth decreases the need for medical interventions in labor and offers a less traumatic birth experience for the infant," she said. "Skeptics cite the lack of rigorous scientific study of this therapy and point to case reports of complications in both the mother and infant. However, there is little data out there to support either side."

Dr. Ballard will conduct an analysis of the past five years of underwater deliveries by HealthNet midwives, looking at such things as maternal blood loss, fetal respiration and other indicators of maternal and baby health, to determine the safety of the delivery method. She notes that since the delivery method is selected by the mother, the feasibility of conducting a randomized controlled trial is unknown.

More popular in Europe than in the United States, underwater births have been growing in number in both Europe and the U.S. over the past decade.

With this and other studies, including her ongoing fellowship project to determine the safety of surgical mesh used in pelvic prolapse procedures, Dr. Ballard says she hopes to help the field of obstetrics/gynecology catch up with internal medicine and other specialties that have already harnessed the power of health information technology to improve outcomes.

"This partnership between an academic and a community-based health institution provides us with a special opportunity to generate evidence and improve our understanding about an important public-health issue," Dr. Weiner said.

The underwater birth study is supported by a grant from the Indiana Clinical and Translational Sciences Institute Community Health Engagement Program. It is one of seven community health grants given this year to support projects that involve collaboration between an academic health researcher and community partner. Targeting health issues spanning the state of Indiana, the program's goal is to impact the community and the health of Hoosiers for years to come.

"The opportunity to develop ways to track and affect patient safety may ultimately influence national policy," Dr. Ballard said.

Provided by Indiana University School of Medicine