

reference method. This method was shown to have no systematic bias compared to a plasma hexokinase method, very good precision (CV 2.1%), and be unaffected by common sources of interference such as hematocrit, pH, and  $\text{Po}_2$ .<sup>3</sup> In our practice, we have observed that Radiometer ABL90 glucose is interchangeable with Roche (USA) plasma hexokinase glucose.

The narrow range of glucose values observed is a limitation of our study, as we pointed out in the Discussion section.<sup>1</sup> Some studies have found poor accuracy of glucose meters at very low and very high values, though these tend to be studies of older glucose meter technologies. Like many institutions, we have moved to more moderate glucose target ranges and adapted protocols to proactively prevent hyperglycemia while minimizing hypoglycemia, and rates of hypoglycemia are very low at our institution. We suspect that this will be an ongoing “problem” in studying glucose meter accuracy with current best practices. Manufacturing low and high glucose samples is one option but not applicable to our study comparing capillary to arterial sampling.

We agree with the third point entirely. Although many studies have reported glucose meter accuracies in the intensive care unit, very few intraoperative studies have been performed. The fact that in our study the bias and outlier rates did not differ significantly between capillary and arterial samples in the operating room suggests that there may be something different about the operating room patient population *versus* that of the intensive care unit. One possibility is that the vasodilatory effects of general anesthesia result in more accurate capillary sampling in this environment, but other explanations are certainly possible. We hope other groups will continue investigating the accuracy of capillary and arterial glucose meter testing in different critical care environments.

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### Competing Interests

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## Pump and Dump; Anesthesiologists Lead the Feed

*To the Editor:*

We would like to commend the editors of the October 2017 issue for emphasizing the topic of perioperative lactation for patients having surgery. We especially appreciate the infographic by Wanderer and Rathmell,<sup>1</sup> titled “Anesthesia & Breastfeeding: More Often Than Not, They Are Compatible.” Wanderer and Rathmell’s work represents a paradigm shift in the way breastfeeding patients are managed and invites anesthesiologists to continue to support the maternal–infant dyad after delivery.

We are writing to voice our concern that many of our specialty’s foundational textbooks contain timeworn recommendations including “the mother should discard milk produced within the first 24 h after anesthesia.”<sup>2</sup> Of perhaps equal concern is that many principal anesthesia textbooks omit the subject completely, further perpetuating anecdotal and potentially disruptive practices.

In most cases it is safe for patients to resume breastfeeding as soon as they are awake and alert. It is our hope that as perioperative physician leaders, anesthesiologists will take on the role of educating breastfeeding patients presenting for surgery as well as the healthcare providers involved in their operative encounter. We believe this begins with expanding the teaching of our trainees to include the most current literature regarding this topic. We would respectfully request this be considered for future editions of comprehensive anesthesiology texts, so we may continue to be leaders at the junction of evidence-based and patient-centered practice.

### Competing Interests

The authors declare no competing interests.

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This letter was sent to the author of the original article referenced above, who agrees with this letter.—Evan D. Kharasch, M.D., Ph.D., Editor-in-Chief.

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## In Ultrasound Images, All That Is Black Is Not Always Fluid

To the Editor:

We read with interest the “Images in Anesthesiology” section article entitled “Ultrasound-guided Intraarticular Knee Injection” in the September 2017 issue discussing the utility of local anesthetic injection into the suprapatellar bursa for minor arthroscopic knee surgery *via* an alternative position for better visualization.<sup>1</sup> The authors claim that placing the knee in 90° of flexion accentuates the suprapatellar bursa, thus improving the image quality and overall success of the block. However, the hypoechoic strip labeled as suprapatellar bursa in their ultrasound image could also be interpreted as hyaline cartilage overlying the femoral condyles. This usually happens when the transducer is moved more distally over the femoral condyles (fig. 1), hence the need for video clips and dynamic scanning, which will facilitate better appreciation as opposed to static images. Besides the location in the femur to aid in differentiating between the hyaline cartilage and bursa, the cartilage is uniformly regular and is not compressible, which is again difficult to assess from static images. Injecting the hyaline cartilage, or even a minor trauma from the needle, has the potential to worsen the patient's condition as cartilage heals with fibrosis.

Quadriceps femoris is lax at full extension and becomes taut at 30° flexion, and as the angle of flexion is increased, gradually it becomes more stretched. When it is stretched, the fluid within the bursa tends to run back into the joint. In our personal experience and based on available evidence, there does not seem to be an advantage to flex the knee to 90°, as it would stretch the quadriceps tendon, whereas tightening the quadriceps muscles in 30° of flexion often aids in visualizing the suprapatellar bursa in patients with little fluid collection<sup>2</sup> (fig. 2).

### Competing Interests

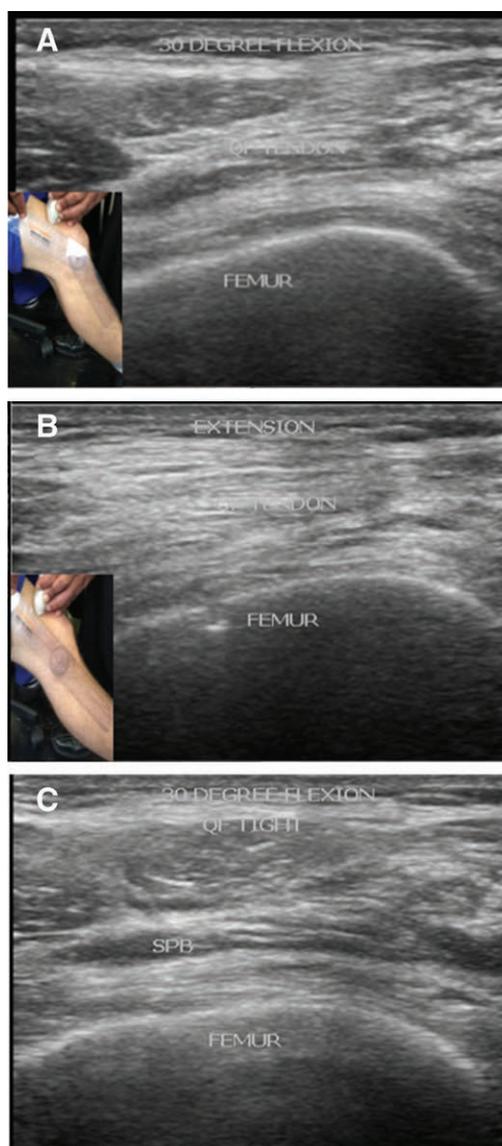
The authors declare no competing interests.

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This letter was sent to the authors of the original article referenced above, who declined to respond.—Evan D. Kharasch, M.D., Ph.D., Editor-in-Chief.



**Fig. 1.** Ultrasound image of the knee in 90° of flexion at distal femur. HC = hyaline cartilage.



**Fig. 2.** (A) Ultrasound of the knee in 30° flexion. (B) Ultrasound of the knee in extension. (C) Ultrasound image of the knee in 30° flexion with contraction of the quadriceps. SPB = suprapatellar bursa; QF = quadriceps femoris.