

Clinical Technology and Glucose Management

To the Editor:

Implementation of perioperative glucose management bundles¹ through integration of technology with clinical decision support systems was recently presented by Ehrenfeld *et al.*² Although their results suggest an association between optimal glucose control and reduction in surgical site infections, the authors did not clearly discuss whether the implementation of the glucose bundle was unique or associated with other quality improvement initiatives earlier or concurrently initiated with the study. In addition, the glycosylated hemoglobin (HgbA1C) value, after the propensity score matching, is missing from table 2 in Ehrenfeld *et al.*

Acknowledgment

The author is grateful to UTHealth (Houston, Texas) and Memorial Hermann Hospital (Houston, Texas) for support.

Competing Interests

The author declares no competing interests.

Davide Cattano, M.D., Ph.D., D.A.B.A., McGovern Medical School, UTHealth at Houston, Houston, Texas. davide.cattano@uth.tmc.edu

References

1. Duggan EW, Carlson K, Umpierrez GE: Perioperative hyperglycemia management: An update. *ANESTHESIOLOGY* 2017; 126:547–60
2. Ehrenfeld JM, Wanderer JP, Terekhov M, Rothman BS, Sandberg WS: A perioperative systems design to improve intraoperative glucose monitoring is associated with a reduction in surgical site infections in a diabetic patient population. *ANESTHESIOLOGY* 2017; 126:431–40

(Accepted for publication October 27, 2017.)

In Reply:

We would like to thank Dr. Cattano for his comments regarding our article, “A Perioperative Systems Design to Improve Intraoperative Glucose Monitoring Is Associated with a Reduction in Surgical Site Infections in a Diabetic Patient Population.”¹ Our local implementation of the glucose bundle primarily focused on (1) implementation of intraoperative decision support, (2) departmental agreement around the utility of intraoperative glucose monitoring, and (3) broadened availability of intraoperative glucose point-of-care testing. The implementation of this bundle was a free-standing initiative, not linked to any other quality improvement initiatives that occurred during the study time course. Glycosylated hemoglobin (HgbA1C) was only available for a subset of patients: 810 (20%) preintervention and

3,088 (26%) postintervention. HgbA1C was therefore not included in the propensity score because matching on HgbA1C resulted in a dramatic decrease in the number of matched pairs.

Competing Interests

The author declares no competing interests.

Jesse M. Ehrenfeld, M.D., M.P.H., Vanderbilt University School of Medicine, Nashville, Tennessee. Jesse.ehrenfeld@vanderbilt.edu

Reference

1. Ehrenfeld JM, Wanderer JP, Terekhov M, Rothman BS, Sandberg WS: A perioperative systems design to improve intraoperative glucose monitoring is associated with a reduction in surgical site infections in a diabetic patient population. *ANESTHESIOLOGY* 2017; 126:431–40

(Accepted for publication October 27, 2017.)

Perioperative Pain Management for Total Knee Arthroplasty: Need More Focus on the Forest and Less on the Trees

To the Editor:

We read with interest the recent network meta-analysis by Terkawi *et al.*,¹ which focuses on pain management modalities for patients undergoing total knee arthroplasty. The authors conclude that the combination of femoral and sciatic nerve blocks provides the best analgesia.¹ Although some may suggest that this study¹ warrants a change in clinical practice,² we believe that these results should be interpreted with caution. It is not surprising that anesthetizing multiple nerves is superior to blocking a single nerve. However, the authors' preferred intervention is associated with the highest incidence of peroneal nerve palsy (7.6%) and patient falls (2.28%).¹ Readers should be aware that the authors excluded studies that combined multiple analgesic modalities.¹ However, combining peripheral nerve block with periarticular injections offers advantages.³ Additionally, the authors' rehabilitative outcomes were limited to range of motion and degree of flexion¹ at 72h. These may have been measured and documented differently at various institutions (*e.g.*, passively, actively with/without assistance, while on a continuous passive motion machine). In addition, range of motion and degree of flexion at 72h may not correlate with long-term outcomes. Ambulation distance and active measurements were not reliably analyzed by network meta-analysis yet play critical roles for meeting discharge criteria.

So how should readers interpret this study? We believe that one size does not fit all. Previous studies have already revealed the heterogeneity of anesthetic practice for total knee arthroplasty patients. Memtsoudis *et al.*⁴ have shown that most total