that "other issues regarding areas of surgical attire need further evaluation."[7]

The authors state that AORN recommends "Arms should be covered with long-sleeved jackets in semi-restricted areas" and that "Non-disposable head coverings should be covered with a disposable head cover. Neither is recommended by AORN."

The most recent AORN guidelines state,[2] "the perioperative team member should wear scrub attire that covers the arms while performing preoperative patient skin antisepsis" and "the perioperative or sterile processing team member should wear scrub attire that covers the arms while preparing and packaging items in the clean assembly section of the sterile processing area." A direct quote from an educational document released by a senior managing editor from the AORN further clarifies that "… all non-scrubbed personnel should completely cover their arms with a long-sleeved scrub top or jacket when in restricted areas to help contain the shedding of skin squames.[3]" This recommendation led directly to our hospitals' use of long-sleeved jackets for all operating room personnel, which seems to be in keeping with the intention of the stated AORN guidelines. The guidelines and the corollary educational materials have led to implementation of long-sleeve jackets in restricted operating room areas, with a consequent increase the cost per single person, per single entry into the operating room by 10 to 20 fold without any scientific evidence to support their use.

We understand the well-meaning position of the AORN as stated in the response letter by Spruce that the "foremost concern for all perioperative professionals should be for patient safety and for providing the cleanest surgical environment possible for all patients undergoing operative and other invasive procedures. Within a bundled approach for reducing risk of SSIs, covering and containing hair is a reasonable and prudent measure. There is no harm in doing so, but the benefit to all patients is a reduced risk of exposure to potentially pathogenic organisms that live on the hair, skin, and facial hair of perioperative team members." We beg to differ. There are multiple recent large scale clinical and basic science studies[8-11] that have failed to offer evidence of benefit associated with these guidelines. Furthermore, our article provides evidence of a staggering increased cost of health care when these standards are implemented on a national level. We continue to encourage that surgical attire guidelines be held to the same evidence-based standard that we expect in the rest of medical practice.

We thank the AORN for continuing this important dialogue and we are looking forward to the new guidelines to be posted for public comment on January 2, 2019.

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Operating Room Attire

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The discussion concerning operating room (OR) attire, although accepting that most surgical site infections result

from the patient's own bacteria, looks at whether hair covering of surgeons is relevant, and attributes more bacterial shedding to men than women. Surely, a very crucial issue not considered in the analysis are other major co-factors, the principal of which (rarely considered) being the propensity of surgeons to exit the OR and wander about the hospital in OR attire. Few actually re-clothe themselves in new clean surgical attire, which rather suggests that there might not be much difference between this and ordinary washed clothes from home! As the latter suggestion, like the rather amusing possibility mentioned by Kothari and colleagues[1] that surgeons operate naked, will hardly acquire universal acceptability, it might be better to study whether the current surgical trend of quitting and re-entering the OR ad lib has indeed any deleterious effect.

In addition, the published reply of Fujita[2] might, at cursory reading, imply that hair was clipped at the surgical site, that is, around the proposed incision, rather than generally in the OR. Also, there seemed to be a suggestion that surgical site infections are related to the debility of duly affiliated American anesthiologists!

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What Constitutes Ideal Perioperative Glycemic Control for Preventing Acute Postoperative Hyperglycemia in Surgical Patients with Nonalcoholic Fatty Liver Disease?

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We commend Ssentongo and colleagues on their interesting article about the relationship between nonalcoholic fatty liver disease (NAFLD) as a high-value predictor of postoperative hyperglycemia and complications of major abdominal surgery.[1]

Serious problems relating to perioperative glycemic control include hyperglycemia, hypoglycemia, and variability of blood glucose concentration caused by surgical stress.[2,3] To avoid these problems, we established a method of perioperative glycemic control using an artificial pancreas.[2,3] Although hyperglycemia induced by surgical stress is one of the main causes of postoperative infection, optimal blood glucose levels during the perioperative period to prevent postoperative infection, remain unclear. As noted by Ssentongo and colleagues,[1] many investigators have recently suggested that aiming for a blood glucose range of 80 to 140 mg/dL (4.4 to 7.8 mmol/L) to obtain good surgical outcomes is valid in surgical patients.[3] However, the optimal blood glucose range for achieving the most favorable surgical outcomes is unclear. One likely reason for this is that glycemic status varies significantly between patients with and without diabetes. Also, the optimal blood glucose range may depend on differences in surgical, oxidative, and inflammatory stress response in each patient. Our research supports the idea that tight glycemic control during the perioperative period—using an artificial pancreas and aiming for a blood glucose range of 80 to 110 mg/dL (4.4 to 6.1 mmol/L)—is superior to conventional glycemic control in several ways. We found that it not only reduces the risk of surgical site infection, but also leads to shorter hospital stays after surgery (compared with conventional glycemic control using a sliding scale) in patients undergoing hepatectomy, pancreatectomy, and esophagectomy.[3]

Nonalcoholic fatty liver disease is a hepatic manifestation of metabolic syndrome that involves insulin resistance and abnormal glucose metabolism.[4] Oki and colleagues[4] reported that patients with NAFLD had more variability in blood glucose concentration using continuous glucose monitoring than patients who did not have NAFLD. They noted that hyperinsulinemia, hyperglycemia, and glycemic variability are important predictive factors for progression of hepatic fibrosis in patients with NAFLD. Adverse outcomes associated with postoperative hyperglycemia in patients with NAFLD may be more serious. Therefore, in surgical settings, patients with severe NAFLD require more careful glycemic management than patients who do not have NAFLD and those with milder NAFLD.

Ssentongo and colleagues[1] concluded that patients with NAFLD who undergo major abdominal surgery are at risk of postoperative hyperglycemia and would benefit from preoperative metabolic optimization. We believe perioperative glycemic control using an artificial pancreas is a novel method of preoperative metabolic optimization