



Response to: “The Role of Bundle Size for Preventing Surgical Site Infections after Colorectal Surgery: Is More Better?”

Christine S. M. Lau¹ · Aleksander Zywot¹

Received: 11 December 2017 / Accepted: 2 January 2018 / Published online: 17 January 2018
© 2018 The Society for Surgery of the Alimentary Tract

We appreciate the editorial comments and suggestions made by von Lengerke et al., as well as the ability to respond to their critiques. The author makes several valid points about the data analysis, which are needed to further better understand the impact of surgical bundles in reducing surgical site infections (SSI). The meta-analysis we published, entitled “Bundles prevent surgical site infections after colorectal surgery: meta-analysis and systematic review” was conducted to evaluate the impact of bundles on SSIs, and in particular, the types of SSIs—superficial, deep, and organ/space SSIs.¹ Although overall results demonstrated a 40% reduction in the risk of SSIs with the use of bundles, the question of which bundle elements are most beneficial remains.¹ Given the nature of a meta-analysis, there was significant heterogeneity and variation among the included studies. The size of the bundles and the specific interventions included in the bundles, as well as compliance rates, all varied between the studies and are factors which may impact bundle effectiveness. The additional

subgroup analysis by von Lengerke et al. provides further insight into this, revealing a significant reduction in SSI rates for all bundle sizes, but especially for those with 11 or more interventions. As mentioned, this may be due to the fact that large bundles included more evidence-based interventions, as well as the key elements of sterile closure trays, mechanical bowel preparation, and oral antibiotics. Further studies are required to delineate these details and determine which bundle size and elements are associated with the highest compliance rates and effectiveness, while balancing cost feasibility, practicality, and effectiveness.

Reference

1. Zywot A, Lau CSM, Fletcher HS, Paul S (2017) Bundles prevent surgical site infections after colorectal surgery: meta-analysis and systematic review. *J Gastrointest Surg* 21(11):1915–1930.

✉ Christine S. M. Lau
clau1@sgu.edu

¹ Saint George’s University School of Medicine, True Blue,
West Indies, Grenada