

univariate analysis were body mass index (BMI)  $\geq 35$  (odds ratio, 11.11; 95% CI, 2.35–52.59;  $P = .002$ ), and number of spinal levels fused  $> 5$  (odds ratio, 18; 95% CI, 2.47–131.27;  $P = .033$ ).

We observed a similar rate of SSI to that observed by Gu et al<sup>1</sup> (3.3% vs 4.4%). Our study was performed in a tertiary care university hospital, where patients usually have more serious pathologies and are therefore more at risk of SSI, and we included patients with history of spinal surgery (which is a risk factor for SSI). Gu et al<sup>1</sup> included patients from level 1 and level 2 hospitals.

The univariate analysis allowed us to identify BMI  $\geq 35$  and the number of spinal levels fused higher than 5, which were not identified as risk factors by Gu et al.<sup>1</sup> This difference could be explained by analytical differences. Indeed, for BMI, we treated the variable as a binary categorical variable (BMI  $\geq 35$  or  $< 35$ ), whereas Gu et al<sup>1</sup> used 5 BMI categories. Our categories for the reason for surgery (herniated disc, trauma, deformation or degeneration) were different from those used by Gu et al<sup>1</sup> (spinal fracture only, spinal cord injury only, fracture combined with spinal cord injury, degenerative disease). Of note, reservations about Gu et al's<sup>1</sup> results were presented in a letter to the editor by Garcia et al,<sup>2</sup> who questioned the validity of their model and therefore their results and their interpretation. We did not perform a multivariate analysis given the small number of cases and the limitations of such an analysis highlighted by Garcia et al.<sup>2</sup>

Our results (BMI  $\geq 35$  and spinal levels fused), based on prospective surveillance, highlight the specificities of obese patients during their hospital care. In a time of rising prevalence of obesity, this risk factor for SSI should be taken into account during a patient's management for spine surgery. Accordingly, following this preliminary study, we have undertaken an evaluation study to explore whether specific measures regarding cutaneous skin preparation before surgery could be implemented in a specific population of obese patients.

## References

1. Gu W, Tu L, Liang Z, et al. Incidence and risk factors for infection in spine surgery: a prospective multicenter study of 1764 instrumented spinal procedures. *Am J Infect Control* 2018;46:8–13.
2. Garcia JA, Del Castillo A, Hernández Vargas JC. Risk factor for infection in spine surgery: are the results correct? *Am J Infect Control* 2018;46:958–9.

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## Standardizing mask use during intra-articular injections



To the Editor:

We read with great interest the case series describing septic arthritis owing to oral streptococci following intra-articular injection. The big question remains, how can we change the standard of care to include wearing a mask when performing these procedures? Implementation can be difficult because of the attitudes and beliefs of practitioners. As Cain et al<sup>1</sup> state in their study, oral flora causing septic arthritis after an intra-articular injection is rare. Therefore, practitioners tend to rely on anecdotal evidence by saying that, previously, they had never experienced an infection after an intra-articular injection. The key to overcoming this barrier is to illustrate that although the circumstance is rare, it can lead to increased morbidity, hospitalization, and financial cost, among other items. First, changing the Centers for Disease Control and Prevention injection safety and outpatient guidelines to include wearing a surgical mask for intra-articular injections would disseminate the recommendation to a wider audience who access these guidelines but may not necessarily be familiar with the APIC position paper. Second, the position paper can be presented to the relevant medical societies (eg, the American Academy of Orthopedic Surgeons) for consideration to create new guidelines.

We recognize that although the widespread uptake of safe injection practices among all practitioners has not yet occurred,<sup>2</sup> using a

mask while performing intra-articular injections must become a standard, along with the other injection safety practices.

### References

1. Cain SM, Enfield KB, Gianneta ET, Sifri CD, Lewis JD. Septic arthritis due to oral streptococci following intra-articular injection: a case series. *Am J Infect Control* 2018;46:1301-3.
2. Kossover-Smith RA, Coutts K, Hatfield KM, Cochran R, Akselrod H, Schaefer MK, et al. One needle, one syringe, only one time? A survey of physician and nurse knowledge, attitudes, and practices around injection safety. *Am J Infect Control* 2017;45:1018-23.

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