

## Prejudice and Truth about the Effect of Plastic Adhesive Incise Drape

Dear Editor-in-Chief,

We appreciate the efforts of all companies that involved in the production of plastic adhesive incise drape (PAID). The aim of producing PAIDs is creating physical barrier to prevent objects like gloves, instruments, and sponges from coming into contact with the patient's skin flora, reducing the risk of surgical wound contamination (SWC) that could cause a costly and potentially devastating surgical site infection (SSI).

However, the key question is whether PAIDs can really prevent SWC and SSI?

Some companies point out that there are different PAIDs on the market and recommend conclusions and judgments regarding the effects of PAIDs should not be generalized to the entire PAIDs manufacturing companies and their category. Because, based on the reports provided from articles, PAIDs have different features like adhesion to skin and antimicrobial properties that are considered important factors.<sup>[1]</sup> From the past to the present, the disappointing results of the studies regarding effect of PAIDs had been inconsistent with the tempting commercials of PAIDs manufacturing companies. PAIDs are currently widely used during a range of surgical procedures. However, so far none of them has been demonstrated to reduce postoperative SSI. In the recently Cochrane review, *Webster and Alghamdi* (2015) found that a higher proportion of patients developed SSI with PAIDs than with no PAIDs (risk ratio (RR) = 1.23; 95% confidence interval (CI): 1.02-1.48;  $P = 0.03$ ). They also demonstrated that no difference in SSIs when either the iodine-impregnated incise drape or normal woven drapes were used (RR = 1.03; 95% CI = 0.06-1.66;  $P = 0.89$ ). PAIDs cannot prevent SSI and may somehow increase it.<sup>[1]</sup> The world health organization (WHO) reported that there are not enough evidences to support use of PAIDs in surgeries and then recommended PAIDs (with or without antimicrobial properties) should not be used for the purpose of preventing SSI against its use.<sup>[2]</sup> A systematic review and meta-analysis by *Eckler et al.* showed PAIDs may increase the incidence of SSI after cesarean delivery.<sup>[3]</sup>

Our study about the effect of PAID on contamination rate of surgical wound showed using PAID is unable to reduce SWC in clean lumbar spine surgery<sup>[4]</sup> and surgeons

should be aware that use of PAIDs can itself recolonize or regrowth the skin flora.<sup>[5]</sup>

We suggest avoid using any kind of PAIDs until the effects of using them in reduction of SWC and SSI rate has been reported unambiguously through more randomized controlled trial studies.

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### Conflicts of interest

There are no conflicts of interest.

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