Reply

B.H. Wittekamp[1,2], M.J.M. Bonten[1,3]

[1]Julius Center for Health Sciences, University Medical Center Utrecht, Utrecht, the Netherlands

[2]Intensive Care Center, University Medical Center Utrecht, Utrecht, the Netherlands

[3]Department of Medical Microbiology, University Medical Center Utrecht, Utrecht, the Netherlands

Correspondence

B.H. Wittekamp - b.h.j.wittekamp@umcutrecht.nl

Spronk and van der Voort provide six explanations for the lack of a statistically significant effect of SDD in preventing ICU-acquired bloodstream infections or improving patients outcome when studied in ICUs with a moderately high prevalence of antibiotic resistance. Indeed, cotrimoxazole was not added for decontamination of non-fermenting bacteria, neither was vancomycin for MRSA, or antibiotics such as paromomycin, temocillin or amikacin for MDRGNB, and nystatin was used instead of amphotericin B. Yet, for the primary outcome there was, in the SDD population, one episode of ICU-acquired bloodstream infection caused by a non-fermenting non-pseudomonas bacteria that might have been prevented by cotrimoxazole. MRSA and yeast bloodstream infection were not part of the primary endpoint.[1]

And, indeed, an intravenous course of antibiotics on admission was not part of the protocol and application of the substances was stopped when mechanical ventilation stopped but exposure to MDRGNB was still a fact. Not to include a standard course of intravenous antibiotics was considered more appropriate than using cephalosporins in ICUs selected upon a high prevalence of MDRGNB, as was using carbapenems for this purpose. The potential effects of this choice and of stopping substances before actual ICU discharge were analysed in a post-hoc sensitivity analysis that failed to demonstrate a large impact of these decisions on the occurrence of bloodstream infection rates or patient outcome.

And indeed, active laxation was not used as an additional measure to achieve high rates of decontamination.
It is important to realise that the contribution of any of the mentioned variations of the initial protocol to the effectiveness of SDD has never been quantified. Therefore, we simply do not know whether omission of these measures will change the effectiveness of SDD.

Disclosures

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References

1. Wittekamp BH, Plantinga NL, Cooper BS, et al. Decontamination strategies and bloodstream infections with antibiotic-resistant microorganisms in ventilated patients. A randomized clinical trial. JAMA. 2018; 20:2087-98.