Colistin Resistance during Selective Digestive Tract Decontamination Is Uncommon

D. F. Zandstra,^a J. H. Rommes,^b M. A. de la Cal,^c L. Silvestri,^d N. Taylor,^e H. K. F. van Saene^e

Department of Intensive Care, Onze Lieve Vrouwe Gasthuis, Amsterdam, The Netherlands^a; Intensive Care Unit, Gelre Ziekenhuizen, Apeldoorn, The Netherlands^b; Department of Intensive Care Medicine, Hospital Universitario de Getafe, Getafe, Spain^c; Department of Emergency, Unit of Anesthesia and Intensive Care, Presidio Ospedaliero, Gorizia, Italy^d; Institute of Ageing and Chronic Diseases, University of Liverpool, Liverpool, United Kingdom^e

We read the report entitled “Emergence of colistin resistance in *Enterobacteriaceae* after the introduction of selective digestive tract decontamination in an intensive care unit” by Halaby and colleagues (1). Although we are quite familiar with the issue of selective digestive decontamination (SDD) and resistance (2–4), this report on the subject raises some concerns.

Apparently the intensive care unit (ICU) in Enschede, The Netherlands, faces three problems: (i) an outbreak or endemicity of extended-spectrum beta-lactamase (ESBL)-producing *Klebsiella pneumoniae* (ESBL-Kp) strains, (ii) an increase in colistin resistance (CR) among ESBL-Kp strains, and (iii) an increase in tobramycin resistance (TR) among CR potential pathogens. The authors tested one potential cause: the use of SDD.

We are concerned with the study for five reasons: the authors fail (i) to provide basic data on the type of patients included in the study; (ii) to use appropriate epidemiological estimators such as prevalence, cumulative incidence, or density incidence (the authors use the term occurrence); (iii) to distinguish imported from ICU-acquired potential pathogens; (iv) to report whether the studied potential pathogens originated in SDD-treated or in non-SDD-treated patients (SDD was stopped in 2007 when there were only three cases of ESBL-producing *K. pneumoniae* in the last 9 months of 2006, the lowest incidence of the study period); and (v) to detail the frequency of sampling (diagnostic samples from 2001 are included, a period when surveillance samples were not taken).

Most importantly, essential data, e.g., whether there is an increase or decrease in the incidence of studied potential pathogens, are not available, as there is no control of potential confounding factors.

Finally, in the discussion the authors ignore the published evidence that SDD is associated with a reduction of antibiotic resistance and with control of outbreaks due to multiresistant potential pathogens (2–4). They are not interested in explaining that observation.

In conclusion, we feel that this is an inappropriate study with a

low level of evidence (5). The message that “SDD should not be applied in outbreak settings when resistant bacteria are prevalent” is supported only by one sophisticated statistical analysis when the explanatory variables included in the model are SDD, sampling day, and type of culture. This ICU study does not pay attention to the imported cases, the antibiotic policy, or the type of patients to explain antibiotic resistance.

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Address correspondence to H. K. F. van Saene, nia.taylor@liv.ac.uk.

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