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### Notice of Retraction and Replacement

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**Conflict of Interest Disclosures:** Dr Black has completed and submitted the ICMJE Form for Disclosure of Potential Conflicts of Interest and none were reported.

1. Sorita A, Ahmed A, Starr SR, et al. Off-hour presentation and outcomes in patients with acute myocardial infarction: systematic review and meta-analysis. *BMJ*. 2014;348:f7393.

**Notice of Retraction and Replacement: Oostdijk et al. Effects of Decontamination of the Oropharynx and Intestinal Tract on Antibiotic Resistance in ICUs: A Randomized Clinical Trial. *JAMA*. 2014;312(14):1429-1437.**

**To the Editor** In the Original Investigation entitled “Effects of Decontamination of the Oropharynx and Intestinal Tract on Antibiotic Resistance in ICUs: A Randomized Clinical Trial” published in the October 8, 2014, issue of *JAMA*,<sup>1</sup> we inadvertently reported incorrect secondary outcomes. This was a cluster randomized crossover study comparing the ecological effects of selective digestive decontamination (SDD) vs selective oropharyngeal decontamination (SOD) in 16 intensive care units (ICUs) in the Netherlands.

The errors were due to misclassification of the 2 intervention periods of 1 of the 16 ICUs, discovered in the course of re-checking the code in conjunction with an individual patient data meta-analysis. We have corrected the errors and confirmed that there are no other errors after reviewing our original analysis and findings. The correction, though, has changed some of the secondary end points of the study: the previously reported absence of statistically significant differences in day 28 mortality, ICU mortality, hospital mortality, length of stay, and rate of candidemia are now statistically significant, favoring SDD over SOD. Thus, we have requested that the original article be retracted and replaced.

As a result of the mislabeling of interventions in 1 ICU, the flow diagram and Tables 1, 3, 4, and 5 have changed. For day 28 mortality the correct data are 25.7% during SOD and 23.8% during SDD with a corresponding adjusted odds ratio (OR) of 0.850 (95% CI, 0.774-0.933). For ICU mortality the correct data are 20.0% during SOD and 18.4% during SDD with a corresponding adjusted OR of 0.842 (95% CI, 0.759-0.933). For hospital mortality the correct data are 28.2% during SOD and 26.3% during SDD with a corresponding adjusted OR of 0.857 (95% CI, 0.783-0.938). For length of ICU stay the correct data are median of 6 days (IQR, 4-10 days) during SOD and 6 days (IQR, 4-11 days) during SDD (OR, 1.056 [95% CI, 1.014-1.100]). For candidemia the correct data are 1.0% during SOD and 0.5% during SDD with a corresponding OR of 0.47 (95% CI, 0.30-0.75).

The corrections for these errors indicate that the previously reported absence of statistically significant differences in secondary outcomes has been changed and the article now concludes: “Unit-wide application of SDD and SOD was associated with low levels of antibiotic resistance. Compared with SOD, SDD was associated with lower mortality, reduced length of stay, lower rates of ICU-acquired bacteremia and candidemia, and lower prevalence of rectal carriage of antibiotic-

resistant gram-negative bacteria, but a more pronounced gradual increase in aminoglycoside-resistant gram-negative bacteria.”

We deeply regret this error as well as the confusion caused to *JAMA*, readers, and potentially to physicians. The original article has been corrected. An additional online supplement has been added that includes a version of the original article with the errors highlighted and a version of the replacement article with the corrections highlighted.

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**Conflict of Interest Disclosures:** All authors have completed and submitted the ICMJE Form for Disclosure of Potential Conflicts of Interest. Dr Kesecioglu reported receiving personal fees from Becton Dickinson. No other authors reported disclosures.

1. Oostdijk EA, Kesecioglu J, Schultz MJ, et al. Effects of decontamination of the oropharynx and intestinal tract on antibiotic resistance in ICUs: a randomized clinical trial. *JAMA*. 2014;312(14):1429-1437.

## CORRECTION

**Errors in Study Group Numbers and Outcome Interpretation:** The Editorial entitled "Rational Use of Antibiotics in the ICU: Balancing Stewardship and Clinical Outcomes"<sup>1</sup> published in the October 8, 2014, issue of *JAMA*, included errors in the numbers of participants randomized and inaccurate sentences regarding the findings of the accompanying trial.<sup>2</sup> The corrections in the Editorial are to accommodate the retraction and replacement of the trial. The numbers of participants, reported in the third paragraph of the Editorial, should be 6040 patients random-

ized to selective digestive tract decontamination (SDD) and 5957 randomized to selective oropharyngeal decontamination (SOD). The last sentence of the third paragraph is revised from reflecting no differences in any outcomes by group to the following: "Compared with SOD, SDD was associated with lower mortality and length of stay." Finally, the penultimate sentence in Editorial about favoring SOD as a more reasonable approach has been removed. This article was corrected online.

1. Kollef MH, Micek ST. Rational use of antibiotics in the ICU: balancing stewardship and clinical outcomes. *JAMA*. 2014;312(14):1403-1404.

2. Oostdijk EAN, Kesecioglu J, Schultz MJ, et al. Effects of decontamination of the oropharynx and intestinal tract on antibiotic resistance in ICUs: a randomized clinical trial. *JAMA*. 2014;312(14):1429-1437.

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