Bone cement implantation syndrome - responses to queries

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Editor—We appreciate the comments from Dr Karnwal and colleagues and Dr Jain and colleagues and their interest in our recent publication.1 Regarding the question from Dr Karnwal and colleagues on the type of anaesthetic administered to the patients, an overwhelming majority of the included patients (85–90%) received spinal anaesthesia for their surgery, as also stated in Table 1. In addition, the patients were sedated by propofol. We agree that the use of MMA could be a problem for the working environment.

Here follow the responses to the comments from Dr Jain and colleagues:

1. All patients were operated on after traumatic femoral neck fracture. Those patients with previous instrumentation of the femoral canal were excluded.
2. A cement gun is routinely used at our centre. Although there may have been isolated cases where ‘finger packing’ was used, the absolute majority of procedures were done with cement gun. Unfortunately, we do not have data on the exact number of patients in whom the cement gun was used or not used.
3. Vacuum mixing is routinely used at our centre.
4. We do not have data on the incidence of osteoporosis from DEXA screening or the use of anti-osteoporotic drugs in our study group. As our patient material consisted of predominantly elderly patients with a mean age of 85 yr, and that fractured femoral neck is a typical injury seen in osteoporosis, we can assume that the majority of patients had osteoporosis to some degree.

Declaration of interest

None declared.

Reference

doi:10.1093/bja/aev281

SDD and contextual effect

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Editor—The nation-wide survey of usage of selective decontamination of the digestive tract (SDD) among ICU’s in the UK, as recently published by Canter and colleagues is of great interest as a real world experience with this intervention.1

Among >280 000 admissions to 203 ICU’s in the UK reporting data to the Intensive Care National Audit and Research Center (ICNARC), unit acquired bacteremia occurred in 2.7 percent of ICU admissions for nine ICUs that were using SDD vs 2.8 percent for 196 that were not.1 These findings are similar to those in a nation-wide survey of 19 Dutch ICUs, amongst which the bacteremia rates were 5 vs 4 per 100 patient days for ICUs using vs not using SDD, respectively.2 The findings in these surveys contrast to the findings of published randomized concurrent control trials (RCCT) of SDD as summarized in two meta-analyses, which indicate an apparent reduction in bacteremia as great as 31%.3 4

Moreover, in a sub-analysis of the UK survey, the nine ICUs using SDD includes three that were using SDD with an i.v. component, for which the bacteremia rates was 0.1%. The bacteremia rate amongst the other six ICUs that were using SDD without an i.v. component is unknown but presumably higher than 2.7%.

Critical to the interpretation of both the UK and the Dutch survey findings is clarifying whether the bacteremia rates as reported by the units was for the entire unit and not limited to those patients receiving SDD for those units that reported use of SDD.

The apparent effect of SDD regardless of formulation and components requires a cautious interpretation and more information is needed in this regard to determine the direct vs indirect (contextual) contributions toward the apparent effect of SDD in the survey.1 2 7

In contrast to the survey findings, among published randomized concurrent control trials (RCCT) of SDD, the mean bacteremia and VAP incidences are unusually high for the control groups.5 6 7 For the incidence of bacteremia this is as much as two-fold higher vs groups within studies of comparable populations, either without any study intervention, or studies with a non-antibiotic method of intervention. The incidences among concurrent control groups of SDD studies are higher than that among studies of SDD for which the control group was either non-concurrent or concurrent and receiving only the i.v. component of SDD. Presumably, the i.v. component mitigates against this risk. Underlying this discrepancy is a selective increase in coagulase negative staphylococci (CNS), but not in Pseudomonas aeruginosa among bacteremia isolates within concurrent control groups of SDD-RCCT’s vs benchmark groups with data available.5