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Letter to the Editor:

Bathing babies – current practices in UK neonatal intensive care units

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Bathing and skin cleansing/disinfection practices are important infection prevention and control measures in hospitalised patients. Yet for the neonatal intensive care unit (NICU) environment there are few studies and some practices may pose peculiar risk, for example inadvertent infection when using contaminated tap water.¹ While a meta-analysis in adult patients, mostly in intensive care, showed that daily washing with chlorhexidine gluconate halved the risk of catheter-related bloodstream infections,² the latest national evidence-based guidelines for preventing healthcare-associated infections in the NHS ('epic3') contain no specific recommendations regarding bathing or regular antiseptic washes for neonates/children.³

To investigate current UK practices we conducted a telephone questionnaire of all 60 tertiary-level NICUs. We asked senior/lead nurses about their unit's bathing/skin cleansing policy. We surveyed between November 2019 and February 2020 and used a bespoke pro forma. [Supplementary File S1]

We obtained responses from 57 (95%) of 60 NICUs. Of responding units, 44 (77%) bathed regularly starting from when babies first moved from the NICU/high-dependency to special care, when considered better able to maintain body temperature; 10 (18%) bathed infrequently, namely only when a baby was ready for discharge, visibly dirty, or after a protracted in-patient stay; 3 (5%) either never or only very rarely bathed babies routinely during their whole admission.

Among the 44 units that routinely bathed their babies, bathing frequency was ad hoc in 30 (68%) and daily to three-times-a-week in 14 (32%) units; 36 (67%) used their unit's tap water for bathing while 18 (33%) used sterile water; 40 (70%) provided routine 'top and tail' (practising cleansing of face, hands, feet and nappy area with cotton wool and sterile water/wipes) until babies could maintain body temperature and tolerate a bath; 8 (14%) used adjunct antiseptic agents or cleansing products including Octenisan[®] wipes, Conti[®] cloths, Infacare[®] wash, Johnson's[®] baby wash, and Cetraben[®] lotion. No unit had a postnatal or gestational age limit for allowing bathing. Only 12 units (21%) had

a written bathing policy: one stipulated once-daily Octenisan[®] washes for all babies from ≥ 26 weeks post-menstrual age.

Concerns have been raised about the possible selection of antiseptic-resistant bacteria and studies suggest this may occur in practice.⁴ However, very few data are available to assess what clinical risk is represented by bathing babies using antiseptics. More work is needed to inform future policies to take this into account.

Infections caused by *Pseudomonas aeruginosa* caused the death of four babies in Northern Ireland in 2012 and resulted in a recommendation that only sterile and not tap water be used for washing babies while in neonatal care.¹ Our finding that most NICUs presently use tap water for bathing is therefore potentially concerning.

Our study highlights wide variation in bathing practices in UK tertiary NICUs. Firm evidence to guide routine cleansing practices is currently lacking. Given the potential importance of routine skin cleansing in preventing neonatal sepsis, we consider this area demands further investigation of safety and efficacy.

Author contributions: PC conceived the idea for the study, and designed the questionnaire with MD; MD conducted the telephone survey and analysed the data. MD and CF wrote the first manuscript draft. All authors contributed to manuscript revision and approved the final version.

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