We conducted a systematic review of studies targeting adult patients in neuro-intensive care units (neuro-ICUs) with an intervention designed to prevent ICU-acquired infections” Lord et al (2018).

Abstract:

Hospital-acquired infections are common in neurointensive care units. We sought to review interventions which may reduce infection rates in neurocritically ill populations. We conducted a systematic review of studies targeting adult patients in neuro-intensive care units (neuro-ICUs) with an intervention designed to prevent ICU-acquired infections. Our outcome of interest was change in the prevalence or rates of infection between active and control arms of these studies. We excluded studies based on the following criteria: no English full-text version available; pediatric population; non-neurosciences ICU population; pre- or intraoperative methods to prevent infection; lack of discrete data for infection rates/prevalence; studies that were purely observational in nature and did not test an intervention; and studies performed in resource limited settings. We initially retrieved 3716 results by searching the following databases: PubMed/MEDLINE, EMBASE via Ovid, and Cochrane CENTRAL via Ovid. No date or language limits were used in the search.

Computerized deduplication was conducted using EndNote followed by a confirmatory manual review resulting in 3414 citations. An additional 19 manuscripts were identified through review of references. The screening process followed a standard protocol, using two
screeners at the title/abstract level to determine relevance and at the full-text level to determine eligibility for inclusion. The 3427 titles/abstracts were independently screened by two board-certified neurointensivists to determine relevance for full-text review, and 3248 were rejected. The remaining 179 abstracts were reviewed in full text using predetermined inclusion/exclusion criteria. Ultimately, 75 articles met our inclusion criteria and were utilized in the final analysis. The reviewed literature highlights the need for collaborative, multi-disciplinary, and multi-pronged approaches to reduce infections. Rates of VRI, SSI, VAP, CAUTI, and CLABSI can approach zero with persistence and a team-based approach.

Reference:
