“In intubated patients, the use of topical polymyxin/tobramycin/amphotericin B plus mupirocin/chlorhexidine was associated with the reduction of all-cause ICU-acquired infections.” Camus et al (2014).

Reference:

Abstract:
Objectives: In a multicenter, placebo-controlled, randomized, double-blind trial, we showed that acquired infections in intubated patients were reduced by the combination of topical polymyxin plus tobramycin and nasal mupirocin plus chlorhexidine body wash. Because intubated patients are particularly at risk for acquired infections, we reassessed the impact of this protocol as a routine procedure to control acquired infections in the ICU.

Design: Nonrandomized study comparing acquired infections in ICU patients during two 1-year periods: the last year before (group A, n = 925) and the first year after the implementation of the protocol (group B, n = 1,022). Acquired infections were prospectively
Routine use of a decontamination regimen reduces CLABSI

recorded.

Setting: Polyvalent medical ICU at a university-affiliated hospital.

Patients: All patients admitted to the ICU.

Interventions: Administration of polymyxin/tobramycin/amphotericin B in the oropharynx and the gastric tube plus a mupirocin/chlorhexidine regimen in intubated patients and standard care in the other patients.

Measurements and Main Results: The comparison of acquired infection rates between groups was adjusted for differences at baseline. Infection rates were lower in group B compared with group A (5.3% vs 11.0%; \( p < 0.001 \)), as were the incidence rates of total acquired infections (9.4 vs 23.6 per 1,000 patient-days; \( p < 0.001 \)), intubation-related pneumonia (5.1 vs 17.1 per 1,000 ventilator-days; \( p < 0.001 \)), and catheter-related bloodstream infections (1.0 vs 3.5 per 1,000 catheter-days; \( p = 0.03 \)). There were fewer acquired infections caused by ceftazidime-resistant Enterobacteriaceae (0.8‰ vs 3.6‰; \( p < 0.001 \)), ciprofloxacin-resistant Enterobacteriaceae (0.8‰ vs 2.5‰; \( p = 0.02 \)), ciprofloxacin-resistant Pseudomonas aeruginosa (0.5‰ vs 1.6‰; \( p = 0.05 \)), and colistin-resistant Gram-negative bacilli (0.7‰ vs 1.9‰; \( p = 0.04 \)). Fewer patients got acquired infections due to multidrug-resistant aerobic Gram-negative bacilli (\( p = 0.008 \)).

Conclusions: In intubated patients, the use of topical polymyxin/tobramycin/amphotericin B plus mupirocin/chlorhexidine was associated with the reduction of all-cause ICU-acquired infections. Long-term emergence of multidrug-resistant organisms deserves further investigation.

Other intravenous and vascular access resources that may be of interest (External links – IVTEAM has no responsibility for content).
