

Research Compact

Tags

MDRO, Octenidine. Nosocomial

Title

Universal decolonization with octenidine: First experiences in a tertiary burn intensive care unit

Authors

Baier C.*, Ipaktchi R., Schwab F., Smith A., Liu X., Ebadi E., Limbourg A., et al.

*Corresponding author: Institute for Medical Microbiology and Hospital Epidemiology, Hannover Medical School

Source

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Aim of the study

Burn patients are predisposed for nosocomial infections. Several outbreaks of Methicillin-resistant *Staphylococcus aureus* (MRSA) were reported in burn units. A universal decolonization approach was applied to address this issue.

Study design

Retrospective analysis

Methods

Daily, universal decolonization of 340 severe burn patients with Octenidine wash mitts, nasal gel and mouth washes. Monitoring of nosocomial bloodstream infections (CLABSI), the frequency of nosocomial clusters, with multidrug-resistant bacteria (MDRB) and the incidence of MRSA.

Results

The incidence rate of central venous catheter-associated bloodstream infections (CLABSI) decreased from 2.03/1000 to 0.82/1000 central venous catheter days in the washing phase. The CLABSI incidence rate per 100 patients decreased from 1.91 to 1.07 in the decolonization phase. The number of reported MRSA and MDRB cases decreased from three and four to both zero in the decolonization period, respectively. However the results were not statistically significant.

| | Pre-Decolonization | Decolonization | p-value |
|---|--------------------|----------------|---------|
| Number of Patients | 661 | 340 | |
| Patient days | 5811 | 3380 | |
| Outcome | | | |
| Number of CLABSI cases | 8 | 2 | |
| Incidence rate of CLABSI per 1000 CVC days | 2.03 | 0.82 | 0.254 |
| Incidence of CLABSI per 100 patients with CVC | 1.91 | 1.07 | 0.491 |
| Number of nosocomial MRSA cases | 3 | 0 | |
| Incidence rate of nosocomial MRSA cases per 1000 patient days | 0.52 | 0.00 | 0.505 |
| Number nosocomial MDRB cluster | 4 | 0 | |
| Incidence rate of nosocomial MDRB cluster per 1000 patient days | 0.69 | 0.00 | 0.320 |

Conclusion

The results indicate that the universal decolonization with Octenidine in burn patients is a promising concept to prevent nosocomial bloodstream infections. A study with a larger patient pool might provide statistical significance.