

Antimicrobial therapies linked to neonatal infection outbreaks

October 1 2013

Administration of antibiotics may have caused successive outbreaks of vancomycin-resistant enterococci (VRE) in a Greek neonatal intensive care unit (NICU), according to a study in the October issue of the *American Journal of Infection Control*, the official publication of the Association for Professionals in Infection Control and Epidemiology (APIC).

A team of physicians at the Aristotle University School of Medicine in Greece responded to two occurrences of VRE in their 44-bed NICU with a bundled intervention of active surveillance, enhanced infection control measures, optimization of antimicrobial usage, and investigation of potential risk factors for VRE colonization over a six-month period. Out of 253 newborns screened, 39.9 percent were found to be carriers of VRE. During the first wave of this outbreak a single clone predominated.

Antimicrobial usage, particularly administration of vancomycin and other glycopeptide antibiotics, was reduced significantly until the outbreak appeared to be over. Just as antimicrobial usage returned to previous levels, a new case of VRE was discovered and a second wave of the outbreak began.

Analysis of the data revealed antimicrobial treatment for late-onset neonatal sepsis and hospitalization during the outbreak as significant [risk factors](#) for VRE.

The authors conclude, "Both a high prevalence of VRE colonization and antimicrobial use promoted the transmission of VRE during this biphasic [outbreak](#). Adherence to [infection control](#) measures and antimicrobial stewardship policies are of utmost importance."

Provided by Elsevier

Citation: Antimicrobial therapies linked to neonatal infection outbreaks (2013, October 1)
retrieved 18 April 2024 from
<https://medicalxpress.com/news/2013-10-antimicrobial-therapies-linked-neonatal-infection.html>

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