

Panton-Valentine Leukocidin-Positive *Staphylococcus aureus*: a successful infectious enemy?

ABSTRAK

Objective: To highlight the current knowledge on pathogenicity, mode of transmission and emergence of antimicrobial resistance in panton-valentine leukocidin (PVL)-positive *Staphylococcus aureus*. **Material and Methods:** Previously published abstracts and full articles relating to the study topic were selected, and relevant articles were downloaded and reviewed. Manuscripts which covered PVL and *S. aureus* were chosen for structured review. Quality assessment checks were performed on the papers and the findings were compared and interpreted. **Results:** Recent reports have shown a worldwide increase in *S. aureus* infections caused by PVL-positive organisms. Moreover, PVL-positive *S. aureus* is responsible for more than one-third of all community and hospital based infections, associated with high mortality and morbidity. Nasal carriage transmission of PVL-positive *S. aureus* is an important risk factor for staphylococcal infections, with the primary source of infection in hospitals coming from colonized patients and healthcare workers. **Conclusions:** Increased diagnostic and management surveillance of suspected and confirmed staphylococcal infections will help decrease PVL-positive *S. aureus* spread. Indiscriminate antibiotics use must be strictly controlled in healthcare settings and communities to prevent further resistance selection by microorganisms. It is therefore crucial to initiate a global enhancement in the surveillance of PVL-positive *S. aureus*, to control the spread of infection.