

ANTIMICROBIAL STEWARDSHIP IN ICU

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Antimicrobial resistance (AMR) is a growing threat to global health compromising the effectiveness of life-saving treatments and undermining the foundations of modern medicine. Increasing rates and types of antimicrobial resistance and a limited antibiotic pipeline, particularly for gram-negative pathogens, have led to the global crisis. The burden is highest in low- and middle-income countries (LMICs) due to limitation in AMR surveillance and microbiological diagnostic capacity and access to effective alternative treatment. Antimicrobial stewardship is a systematic, coordinated approach to optimizing the use of antimicrobial agents which aims to ensure the right drug is given at the right time, at the right dose and for the right duration, aiming to eradicate infection whilst minimizing collateral damage. Intensive care units (ICUs) are an appropriate focus of antimicrobial stewardship program (ASP) because a large proportion of any hospital's use of broad-spectrum parenteral antibiotics occurs in the ICU to treat patients with life-threatening infections due to multidrug resistant (MDR) pathogens. There will be potentially competing goals of treating patients with broad-spectrum antimicrobial therapy and antibiotic stewardship. Potential solutions are ASP must ensure to improve overall antibiotic use, not simply reducing antibiotic use or increasing de-escalation and must address the fear of inadequate empirical treatment in the critically ill patients. Antibiotic stewardship should be a core competency of critical care practitioners.

Keywords: Antimicrobial resistance (AMR), Antimicrobial stewardship, Intensive care unit (ICU)

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