

P0260

Poster Session I

Antibiotic choices: clinical studies

DEFINITION AND SIGNIFICANCE OF SALVAGE TREATMENT FOR GRAM NEGATIVE INFECTIONS IN CRITICALLY ILL PATIENTS: PRELIMINARY RESULTS OF AN ESGCIP SURVEY

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Objectives: The era of potentially untreatable infections caused by Extensively - and Pan- Drug-Resistant (XDR/PDR) Gram (-)microorganisms has introduced into clinical practice various treatment modalities. No clear definition exists for 'salvage treatment' (ST) in this context. We aimed to investigate needs and approaches for ST, in a multinational group of physicians treating critically ill patients.

Methods: We conducted an electronic survey among multidisciplinary experts to investigate the frequency, type of infections and pathogens and for which various approaches of ST are used. Increased dosing, pharmacokinetic maneuvers, combinations, off label use and use of neglected or revived antimicrobials was explored. Demographics relating to the responders and their institutions were collected.

Results: A total of 144 partially completed and 109 full responses (49.6% intensivists, 38.5% infectious diseases, 64.7% with >10 years of experience) were collected from 34 countries across all continents. Combination of >=2 agents against a single pathogen and administration of an antibiotic off-label best fitted the responders' beliefs of what constitutes ST; *Pseudomonas aeruginosa* was the most troublesome bug requiring ST in the previous year for the majority. Frequency of off-label administration by infection type and salvage approaches for meropenem, tigecycline and colistin are shown in Table 1. Doses and indications were compared to the European Summary of Product Characteristics (SPC). Any use of colistin was considered an ST, for which the SPC has not universally been updated with the recent recommendations for loading and total daily dose. Use of inhaled colistin ranged from 0-30% among centers. Rifampicin, sulbactam and fosfomycin (in descending order) were in use as ST sometimes/often. Suboptimal dosing of meropenem, tigecycline, colistin and fosfomycin as ST, was reported in non-negligible percentages. Table 1:

	Meropenem (%)	Tigecycline (%)	Colistin (%)
Frequency* of off-label administration by infection type			
Ventilator-associated Pneumonia	92.7	51	NA
Ventilation-associated Tracheobronchitis	72.7	26.6	NA
Urinary Tract Infections	NA	12	NA
Catheter-related Bloodstream Infections	80.9	34.9	NA
Central Nervous System Infections	NA	13.8	NA
Primary Bacteremia	82.7	28.4	NA
Empirically in Sepsis	85.5	28.4	39.4
Salvage approaches			
Increased total daily dose per SPC	46.4	22.9	52.1
Extended infusion or increased loading dose	48.2	14.7	52.5

*Excludes only those who responded they 'never' use for that indication.

NA: the drug is indicated for this infection

Conclusions: There is an indisputable increasing need for ST in difficult to treat infections, associated with individual approaches in terms of dosing, combinations and literature endorsement. A definition of 'ST' seems imperative, in order to harmonize purpose-constructed Guidelines and SPCs.