

P1025 **Evaluation of the efficacy of digestive decolonization with a non-absorbable antibiotic regimen on 54 patients colonized by multi-resistant Gram-negative bacilli**

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**Background:** Digestive decolonization (DD) with non-absorbable antibiotics may be a valuable strategy to reduce transmission and infections due to multidrug-resistant gram-negative bacilli (MR-GNB). The aim of this study was to evaluate the efficacy of a regimen consistent of oral amikacin plus colistin in patients with MR-GNB gut colonization admitted to an area of digestive diseases, including an ICU.

**Materials/methods:** Observational prospective study performed between November-2016 and September-2017 in a tertiary-care hospital in Barcelona on patients with MR-GNB gut colonization who received DD for at least 3 days.

**Results:** Fifty-four patients received DD. Mean age was 61±13 years and 81.5% were male. Mean Charlson index was 5±2 and the main comorbidity was cirrhosis (n=32, 59% Child-Pugh C; mean MELD 20.3±7.8). Thirty-five (64.8%) patients were in ICU (APACHEII score 18.2±6.2). Main MR-GNB isolates were ESBL-producing *Klebsiella pneumoniae* in 40.7%, OXA48-producing *Klebsiella pneumoniae* in 29.6%, XDR-*Pseudomonas aeruginosa* in 11.1%, porin-loss ESBL-producing *Klebsiella pneumoniae* and VIM-producing *Klebsiella oxytoca*, 5.6% each. Mean duration of DD was 10.54±5 days. Twelve (22%) patients did not have any control rectal swab culture and were considered lost to follow-up. Decolonization within the first month was associated with a Charlson index ≥3 ( $p=0.044$ ) and a lower rate of infection caused by MR-GNB (23% vs 73%,  $p=0.015$ ). Decolonization rate during the whole follow-up period was 47.6%. It was not related to a lower rate of infections. When infections by microorganism were analyzed, decolonization was associated with a trend towards a lower rate of infection due to the index MR-GNB (20% vs 45.5%;  $p=0.081$ ) but to an increased rate of infection caused by other microorganisms (50% vs 18%,  $p=0.029$ ). Decolonization was not associated with better survival (4/20 vs 1/22 dead,  $p=0.122$ ). Non-decolonization was related to index isolation of *K. pneumoniae* (60% vs 91%,  $p=0.019$ ). Two patients presented *Clostridium difficile* infection and resistance to amikacin and colistin emerged in two isolates after DD onset.

**Conclusions:** DD may decrease the infection rates of the index MR-GNB at the expense of increasing those due to other microorganisms. No effect of DD on mortality was noted. Clinical benefit of DD should be confirmed in further studies.

### Kaplan-Meier curve

