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ANALYSIS OF PNEUMONIA ASSOCIATED WITH MECHANICAL VENTILATION IN CRITICALLY ILL PATIENTS UNDERGOING SELECTIVE DIGESTIVE DECONTAMINATION

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BACKGROUND AND IMPORTANCE

The Pneumonia Zero project is a multifactorial intervention proposal based on the concurrent application of a series of measures to prevent ventilator-associated pneumonia (VAP) with the intention of reducing this complication at a national level. Within the package of measures, selective digestive decontamination (SDD) is included as an optional but highly recommended therapeutic measure.

AIM AND OBJECTIVES

SDD was recently implemented in our centre with a paste and solution formulation based on colistin, tobramycin and nystatin. Our aim is to analyse the incidence and mortality of VAP after SDD implantation and related factors.

MATERIAL AND METHODS

Retrospective observational study in a second level hospital including all patients who consumed DDS formula in the Intensive Care Unit (ICU) during the year 2022. Data were collected from digital medical records and the FarmaTools[®] electronic prescription software: age, sex, cause of admission to ICU (medical, surgical or trauma), days of ICU stay, days with mechanical ventilation (MV), presence or absence of MVN during admission, use of intravenous antibiotics during MV, presence or absence of multidrug-resistant microorganism in cultures and deaths. For data analysis, we calculated the cumulative incidence of MVN, median days with MV in patients with MVN, multidrug-resistant organisms in patients with MVN, incidence of deaths in patients without MVN and incidence of deaths in patients with MVN.

RESULTS

N: 71 patients (73% male)
Median age: 61 [17-85]

Median days ICU: 14 [1-82]

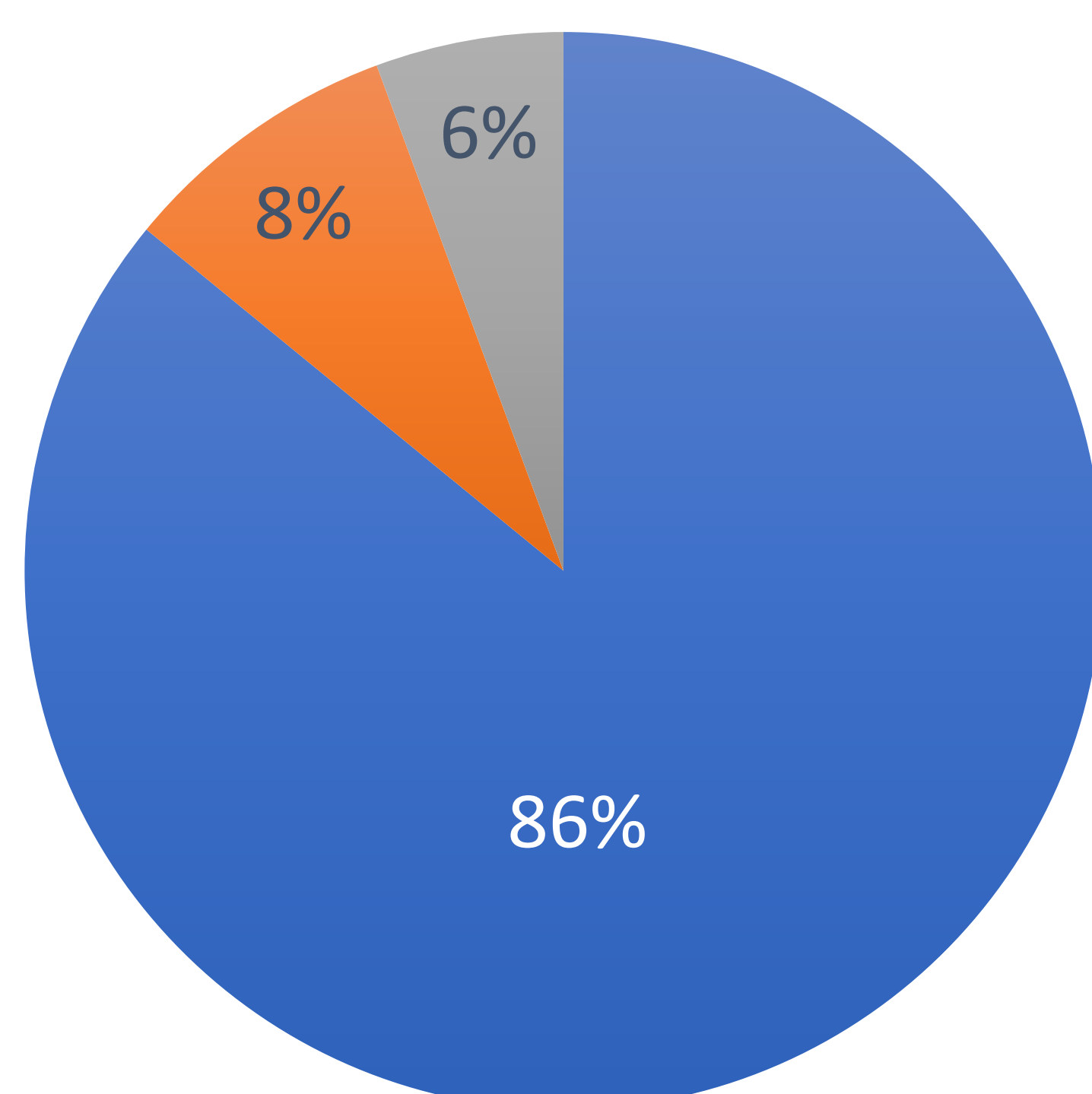
Median days with MV: 10 [1-75]

1 year

Antibiotics during MV: 57 (80%).
Deaths: 41 (57%)

CAUSE ICU ADMISSION

■ MEDICAL
■ SURGICAL
■ TRAUMA



MECHANICAL VENTILATION NEUMONIA 18 (25%)

Median days of MV in pneumonia patients : 14 [4-63]

MDR microorganisms in NVM: 9 (50%).

Death incidence patients without NVM: 18%

Death incidence MVN: 44%.

CONCLUSION AND RELEVANCE

The data suggest a significant incidence of MVN and a higher associated mortality in patients who have not suffered this complication during admission. As would be expected the incidence increases with the number of days on MV. In most cases, intravenous antibiotics were used as a measure included in the Zero Pneumonia protocol, although their use could be improved. It should be noted that half of the micro-organisms isolated in patients with VNM