

**P2457 Clinical outcome and mortality association of INCREMENT-CPE score in the recipients of intravenous fosfomycin from neurocritical care unit: a retrospective cohort study**

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**Clinical outcome and mortality association of INCREMENT-CPE score in the recipient of intravenous fosfomycin from neurocritical care unit – A retrospective cohort study.**

**Background:** Though clinical evidence on usage of fosfomycin in CRE infections is promising, it's limited. We intent to observe the clinical outcome with fosfomycin and also to validate the INCREMENT-CPE mortality score [ICS] proposed by Gutiérrez-Gutiérrez et al in patients with BSI due to CPE in the recipient of intravenous fosfomycin in neurocritical care settings in India.

**Materials/methods:** Retrospective cohort study was planned in all consecutive fosfomycin-treated patients suffering from CRE infections. Patient's demographics, clinical history, combination therapy, Charlson comorbidity index, Pitts score, AST report, serum electrolytes, and treatment details were captured. Association of INCREMENT-CPE score  $\geq 8$  with mortality was analyzed using chi-square test.

**Results:** 25 patients received fosfomycin during study period, 21 considered suitable for effectiveness analysis. VAP (n=10) and sepsis (n=5) were the main infections. Carbapenem resistant K.pneumoniae (N=13) was the most common pathogen. Mean meropenem MIC was  $>8\mu\text{g/ml}$ . Fosfomycin was administered intravenously at a median dose of 16g/day (Range: 8g-24g) for a median duration of 6 days (Range: 2-14 days). Sixteen patients received combination therapy majority with polymyxins (37%), meropenem (31.25%). Successful clinical outcome was documented in 57.1% of patients. All-cause mortality at Day 28 was 38%. Median INCREMENT-CPE mortality score was 3. Near significant ( $p = 0.061$ ) association of Pitts score of  $\geq 4$  was observed with clinical failure or death, however the high ( $\geq 8$ ) INCREMENT-CPE score association with mortality was lacking ( $p=0.54$ ). The main adverse event was hypernatremia in 47% cases.

**Conclusions:** Intravenous fosfomycin was effective in majority of the critically ill patients. Due to lack of association between high INCREMENT-CPE score and mortality in our study, we feel the need to further validate the same in larger cohort in Indian setting.

Table 1: Mortality association of INCREMENT-CPE score in our cohort (N=21)

	No mortality	Mortality	Total
ICS $\geq 8$	3	1	4
ICS $< 8$	10	7	17
<b>Total</b>	13	8	21

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