

ORAL Submission**ALLIED (NURSING, TECHNICAL ASPECTS SUCH AS GRAFT PROCESSING, CRYOPRESERVATION, ETC) (ORAL-664)****DRUG RESISTANT BACTERIAL SEPSIS IN CHILDREN UNDERGOING HSCT IN INDIA- THE VALUE OF STOOL SCREENING**

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Aims & Objectives: We present data on the spectrum of bacterial organisms isolated, methods for early detection and treatment of bacteremia to reduce sepsis related mortality in children undergoing hematopoietic stem cell transplantation (HSCT).

Patients / Materials & Methods: We performed a retrospective analysis in children up to 18 years undergoing HSCT from January 2016 to June 2020. Xpert CARBA-R assay in the stool samples for NDM, KPC, OXA, VIM and IMP was performed from rectal swab at the time of admission till December 2019. Blood Xpert CARBA-R replaced stool screening from January 2020. The cost of each CARBA R is 100 USD.

Results: A total of 488 children underwent HSCT and 95 blood cultures were positive with gram negative bacteria. The most common organism isolated was Klebsiella pneumonia (39%) followed by E.coli (18%) and Pseudomonas species (14%). Over 80% of the Klebsiella and E.coli isolates were carbapenem-resistant. Stool screening prior to HSCT detected carbapenem-resistant organism positive for NDM and OXA only in 31% of these children. Blood CARBA R was performed in 5 children since January 2020 and the antibiotic therapy was escalated to ceftazidime avibactam combination for children with OXA positive species and colistin for NDM positive species. The turn-around time was less than 6 hours

Discussion & Conclusion: K Pneumonia and E Coli are the most common organisms isolated in HSCT recipients in our cohort and over 80% of these being carbapenem-resistant. Stool CARBA R no longer helps guide antibiotic therapy in neutropenic children and adds to the cost of HSCT. In children with gram negative bacterial sepsis, blood CARBA R is a powerful screening tool for early and rational use of antimicrobial agents and optimal antimicrobial stewardship and is cost effective

Disclosure of Interest: None Declared

Keywords: CARBA R, RESISTANT BACTERIAL INFECTION, STOOL SCREENING