



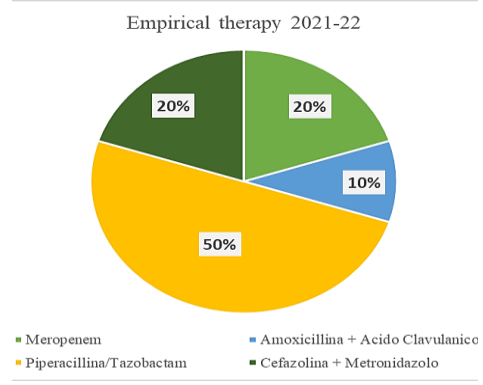
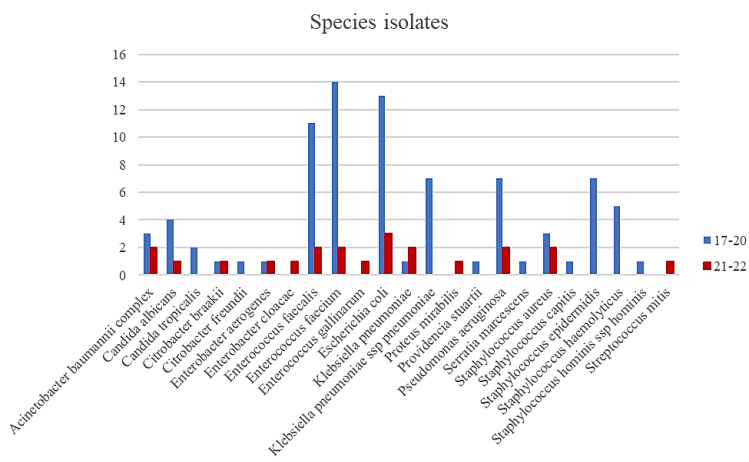
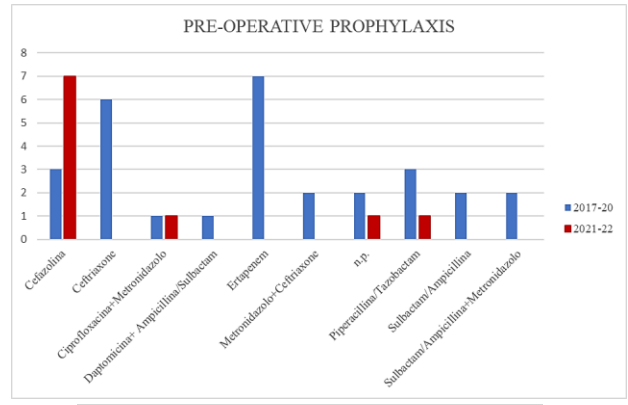
ANTIMICROBIAL STEWARDSHIPS AND POST-OPERATIVE INTRABDOMINAL INFECTIONS: A SINGLE CENTER EXPERIENCE

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BACKGROUND & OBJECTIVE: Healthcare-Associated Infections (HAIs) pose a serious threat to public health. Post-operative intrabdominal infections represent a great challenge for elective surgical patients. The aim of this study is to evaluate changes in microbial species cultured from intrabdominal samples in post-operative infections and their resistance profile before and after introduction of an antimicrobial stewardship program.



METHODS: This study conducted in A.O.U. San Giovanni e Ruggi D’Aragona hospitals in Salerno. From September 2021 in the general surgery ward an awareness interventional program of antimicrobial stewardship was introduced in elective procedures, including preoperative prophylaxis and empirical therapy in cases of intrabdominal post-operative infections. We prospectively collected clinical and microbiological data from intrabdominal samples for all consecutively patients who developed a post-operative IAI from September 2021 to December 2022, comparing with a pre stewardship population from January 2017 to December 2019.

RESULTS: A total of 29 patients were included in the pre-interventional study group. Twenty-one developed a post-operative abscess, 4 a post-operative peritonitis and 1 a tertiary peritonitis. We also included 3 post-operative cholangitis after CDP. Twelve patients were treated with combined antibiotic therapy and 14 with monotherapy. Three out of 29 patients died. The most common microorganisms isolated were Gram-positive (41) followed by Gram-negative (29) and fungi (6). *Enterococcus* spp (30.6%) and *Staphylococcus* spp (23.5%) were the main isolated among Gram-positive. *Staphylococcus* methicillin-resistant were 45%, and only 1% of *Enterococcus* spp were vancomycin resistance. *Escherichia coli* (13%) and *Klebsiella pneumoniae* (9%) were the most isolated among Gram-negative, of these only 35% of isolates were multidrug resistant. The post interventional population included 9 patients. Seven presented with intrabdominal abscess, 2 with post-operative cholangitis. None was reoperated, while in 3 cases we performed percutaneous drainage. None of these patients died.

CONCLUSION: Interventions to reduce excessive antibiotic prescribing to hospital inpatients, based on multidisciplinary stewardship approach may have an effect on intrabdominal flora in post-operative intrabdominal infections.