P2720 Outcomes associated with pre-operative asymptomatic bacteriuria in patients undergoing joint arthroplasty or coronary artery bypass graft

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Background: Patients undergoing surgery are often screened for bacteriuria, and therefore may receive antibiotics even in absence of urinary symptoms. Guidelines do not recommend testing or treating asymptomatic bacteriuria (ASB) prior to non-urologic procedures, although this happens frequently in our institution. Our primary objective was to determine the incidence of surgical site infections (SSI) in adult patients with planned joint arthroplasty or coronary artery bypass graft (CABG) who were given antibiotics for ASB.

Materials/methods: We conducted a single center, retrospective observational evaluation. We evaluated adult patients who had undergone elective total knee (TKA) or hip (THA) arthroplasties, or CABG, between January 2015 and December 2017 at Cooper University Hospital. All patients had to have a positive urine culture within 60 days prior to surgery. Patients were excluded if they had any symptoms of an infection, or who were receiving antibiotics for any other infectious indication.

Results: We included 135 patients receiving joint arthroplasty and 98 undergoing CABG. Fifteen (11%) arthroplasty patients and 5 (5%) CABG patients received antibiotics for a positive urine culture. There was no significant difference found in incidence of surgical site infections, length of stay, or hospital readmission within 90 days post-operation between those treated with antibiotics and those who were not. Six (4.5%) arthroplasty patients had surgical site infections and another 6 (4.5%) had other post-op infections. Fourteen (14%) CABG patients had surgical site infections and 19 (19%) had other post-op infections. In patients with any post-operative infection, the isolated pathogens from the urine and surgical site were not related. We did not find a correlation between ASB and risk of surgical site infections.

Conclusions: Our evaluation showed that pre-operative urine cultures did not correlate with surgical site infections in either surgical group. Positive urine cultures were often not treated with antibiotics, and it seems that pre-op urine cultures are unnecessary. Some limitations of this analysis include the retrospective design, small sample size and it was single-centered. Additionally there was variability noted in the level of detail provided in physician notes for each patient.