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843 Improving Antibiotic Prophylaxis Prescribing in Arthroplasty Surgery Following Neck of Femur Fracture (NOF#): A Clinical Audit Revealing Multi-Factorial Influences on Prescribing Accuracy

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Introduction: Post-op infection is a serious complication in surgery, particularly in arthroplasty. NICE guidelines advise antibiotic prophylaxis for all arthroplasty procedures to avoid this. This audit aimed to assess our concordance with our local guidelines and achieve improvements where we were deficient.
**Method:** Electronic prescribing records were analysed for 60 patients who underwent arthroplasty following NOF# across St. Richard’s and Worthing Hospitals between 4/3/19 – 17/6/19. We presented these initial findings at our local orthopaedic clinical governance meeting to educate team members. We then collected a second cycle of data between 1/11/20 – 16/12/20.

**Results:** Patients receiving some form of antibiotic prophylaxis improved from 90% to 100%. Patients receiving the appropriate prophylaxis as per local guidelines increased from 78% to 83%. However, more patients were given incomplete prophylaxis in the second cycle: 5% of patients were on concurrent antibiotics for chest infection and were not given full prophylaxis, 5% of patients were under-dosed on gentamicin and 3% of patients were not given the full 24 hours’ worth of flucloxacillin. No patients developed joint infections post-op after following up for 6 months.

**Conclusions:** Although all patients were given prophylaxis in the second cycle, patients not receiving the full recommended course of antibiotics represents an avoidable risk in developing post-op infection. We identified that communication between orthopaedic surgeons, anaesthetists and orthogeriatric ward team members and awareness of prescribing responsibility were implicated in accurate prescribing of prophylactic antibiotics. We aim to address these with further education and amendments to performas and then re-audit to look for further improvements.