An Audit of Anti-Microbial Prescribing Practices in Acute Medical Unit of a tertiary care University Hospital

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Introduction

Adherence to anti-microbial prescribing guidelines as a pillar of antimicrobial stewardship is essential in ensuring safe and effective management of infections and to limit the emergence of resistant organisms. To determine the extent to which the local guidelines were being adhered to, we carried out an audit of the anti-microbial prescribing practices for patients being admitted to the AMU of our hospital.

Method

Prospective data by convenience sampling over one month was gathered on 30 patients who were on antimicrobials using a proforma.

Results

66.7% of patients were over 65 (N=20) and 63.3% of those were male (N=19).
1.24% (N=4) had no allergy status documented and 2.17% (N=7) were documented to have a penicillin allergy.

Of the 31 patients included in the audit, the infectious diagnosis at presentation is shown in Figure 1.

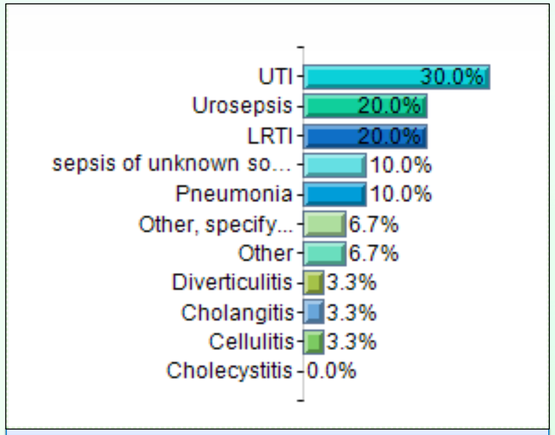

Figure 1: Indication for antibiotic

60.7% (N=17) of initial antimicrobials were prescribed on presentation to the emergency department while 25% (N=7) started by the admitting team and 14.3% (N=4) were started by the staff in the acute medical unit. For two other patients it was unclear as to who had started antimicrobials.

55.2% (N=16) were prescribed in accordance to the SVUH local guidelines.
51.7% (N=16) had the antimicrobial indication documented in the drug kardex and 48% (N=14) had the indication documented in the medical chart. 76% (N=23) had the antimicrobial choice document in the medical notes.

58.6% (N=17) of those included in the audit had blood cultures taken prior to commencing antimicrobial therapy and 80% (N=24) had a relevant microbiological specimen sent. The specimens are outlined in figure 2.

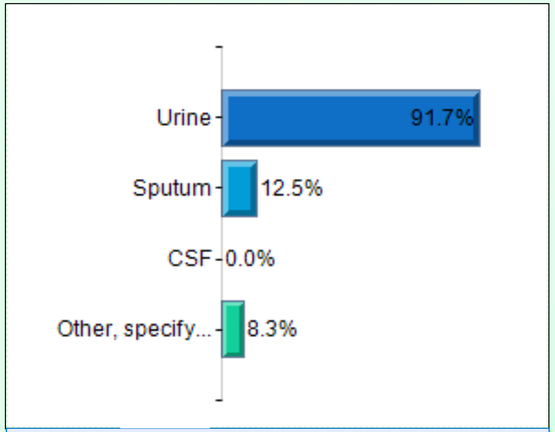

Figure 2: Microbiological specimen type

Twenty-five (83.3%) of patients identified did not have an antimicrobial review date or duration date documented. Two (6.7%) patients received antimicrobial therapy within 1 hour of admission as shown in figure 3. 73.3% of antimicrobials were started after the patients initial assessment in the AMU and 3.3% of antimicrobials were started at another time during the patients admission. (Figure 3.)

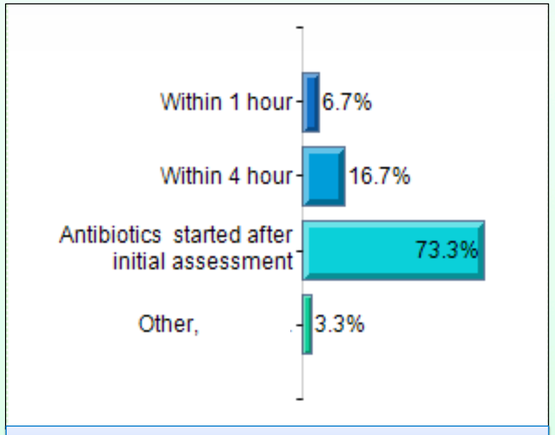

Figure 3: Time of admission to receiving antibiotics

Conclusion

Overall the adherence to antimicrobial prescribing guidelines was moderate. Need for improvement in documentation of antimicrobial duration and of review plan was also identified. Awareness of staff needs to be increased to prevent delay in administration of first dose of antibiotics. Educational sessions on these aspects for relevant staff have been planned both at their induction and periodically afterwards.

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