'EVERY DAY COUNTS'

An Evaluation Of Antibiotic Duration At time Of Hospital Discharge At St James's Hospital

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BACKGROUND

The overuse of antibiotics is one of the key drivers of antimicrobial resistance. Antibiotics are commonly prescribed to patients on discharge to complete a course of treatment. The Antimicrobial Stewardship (AMS) programme in St James's Hospital monitors in-patient hospital antimicrobial prescribing. Heretofore, discharge prescriptions were not reviewed. The purpose of this study was to evaluate total antibiotic duration of therapy at time of hospital discharge. The study focused on three conditions: skin/soft tissue infection (SSTI), uncomplicated urinary tract infection (UTI) and community-acquired pneumonia (CAP).

METHODS

A retrospective Electronic Patient Record (EPR) review was conducted for January 2022, patients were identified if they had received an antibiotic for one of the following indications: SSTI, UTI, CAP. A full chart review was performed if an antibiotic was continued at discharge. Patients were excluded if on review received antibiotics for an alternate indication, discharged on parenteral antibiotics, or had complicating infection factors such as immunosuppression, bone/joint infections, diabetic foot infections or urological abnormalities. The number of days of therapy of each inpatient and outpatient antibiotic prescribed was collected and compared to St James's Hospital antimicrobial guidelines (SSTI: 7-10 days, uncomplicated UTI: 3 days, CAP: 5 days).

RESULTS

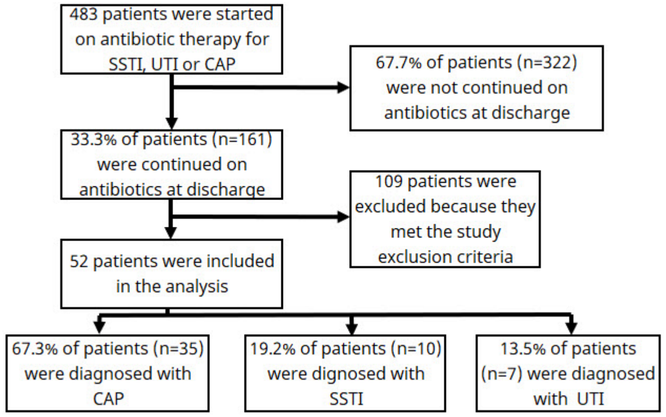

Figure 1: Flowchart of patients included in this study.

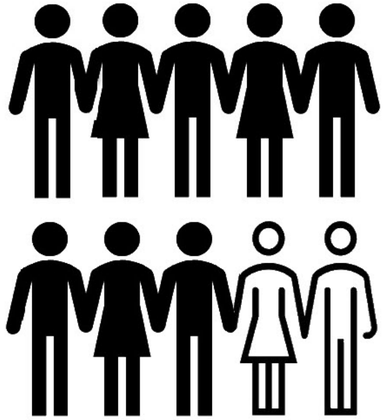

Figure 2: 78.8% of patients (n=41) exceeded SJH guidelines for duration of antibiotic prescribing, for CAP, SSTI and UTI

Table 1: Median duration of treatment with antibiotics in days for CAP, SSTI and UTI

Indication	n	Duration of treatment in Days Median (IQR)		
		As Inpatient	As Outpatient	Total
CAP	35	3 (3-4.5)	4 (2-5)	7 (7-9)
SSTI	10	4.5 (3-5.75)	5 (4-7)	9 (7-12.75)
Uncomplicated UTI	7	3 (3-5)	4 (3-4)	7 (7-8.5)

Abbreviations: CAP, community-acquired pneumonia; SSTI, skin and soft tissue infection; UTI, urinary tract infection.

Duration of antibiotics for 30 out of 35 CAP cases (85.7%) exceeded the guideline of 5 days therapy, median duration of overprescribing was 2.5 days. For SSTI group, 4 patients (40.0%) exceeded the guidelines of the upper duration 10 days therapy; median duration of overprescribing was 3.5 days. For uncomplicated UTI, all 7 patients exceeded the guidelines of 3 days therapy; median duration of overprescribing was 4 days. In total, for all three indications, 41 out of 52 patients (78.8%) exceeded the St James Hospital guidelines by a median 3 days.

CONCLUSION

Despite the complex process of hospital discharge, this pilot data highlights an opportune moment to optimise antimicrobial prescribing. A targeted intervention is planned to reduce unnecessary prolonged antibiotic usage.