

# Audit to Monitor the Compliance of Antibiotic Prescribing and Reviewing According to the Trust Guidelines at Acute Medical Unit at George Eliot Hospital NHS Trust

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## BACKGROUND AND AIMS

In 2018, second cycle of an audit was carried out with the view to measure the improvements since the previous audit in 2017. As the George Eliot Hospital NHS Trust did not meet the CQUIN targets in 2017/2018, we predicted that the trust antibiotic guidelines are not followed and the antibiotic prescriptions are not reviewed at least after 72hrs of prescription.

We aimed to

- Monitor the compliance of trust doctors with antibiotic prescriptions (Against Trust Guidelines - Expectation 100%. But according to the RCPATH guidance, will mark green if compliance is >95%, amber if compliance is between 85-95%, red if compliance is <85%).
- Monitor the compliance of trust doctors on review of antibiotics after prescriptions (National Guidance on Start Smart and then Focus - Expectation 100%. But according to the RCPATH guidance, will mark green if compliance is >95%, amber if compliance is between 85-95%, red if compliance is <85%).
- Determine the unnecessary over prescriptions of antibiotics in the trust (Against Trust Guidelines - Expectation 0%. But will mark green if over prescriptions are <5%, amber between 5-15%, red if >15%).
- Determine the compliance of trust doctors on collecting an appropriate microbiology specimen before prescribing antibiotics (Against Trust Guidelines - Expectation 100%. But according to the RCPATH guidance, will mark green if compliance is >95%, amber if compliance is between 85-95%, red if compliance is <85%).

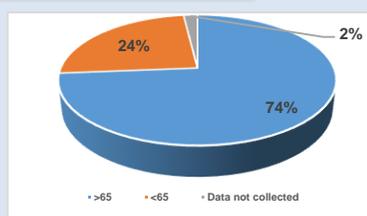
## MATERIALS AND METHODS

Two hundred and thirty-six patients on AMU were reviewed prospectively in March and April 2018 for antibiotic prescriptions. Drug Kardex and medical notes were reviewed to see indication and a review date for antibiotics prescribed. If a prescription out of the guidelines was noted, discussed with the medical team looking after the patient to change over to the correct choice. Trust intranet and pathology systems were reviewed to see whether the appropriate investigations were requested or not.

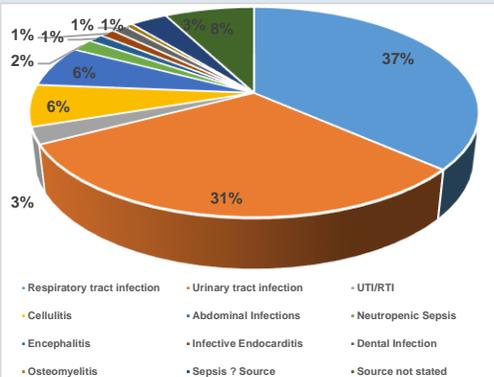
Where a diagnosis could be made with clinical signs and other investigations without microbiology specimens, those patients were removed from the analysis for appropriate specimens were sent or not. It was considered as appropriate specimens were sent if they have at least sent one relevant microbiology specimen.

## RESULTS

### 1. Age Distribution of Patients



### 2. Indications for Antibiotic Prescriptions



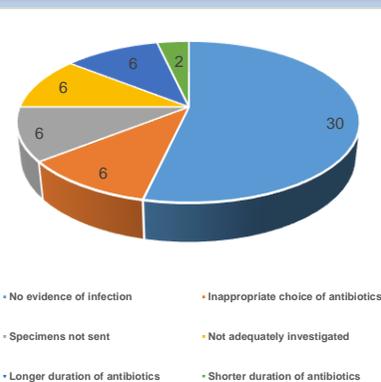
### 3. Comparison of Results in 2017 and 2018 According to RCPATH Guidance for Antibiotic Stewardship

	2017	2018
Number on antibiotics	11/14 (78.57%)	156/236 (66.1%)
Compliance with antibiotic guidelines	4/11 (36.36%)	100/156 (64.10%)
Duration reviewed	7/11 (63.63%)	133/156 (85.25%)
Unnecessary over prescriptions of antibiotics	1/11 (9.1%)	30/156 (19.23%)
Microbiology specimens sent	8/11 (72.72%)	64/81 (79.01%)



## RESULTS

### 4. Reasons for Non-compliance with Trust Antibiotic Guidelines



## CONCLUSIONS

- Proportion of patients on antibiotics is declined which is a good trend.
- Compliance with trust guidelines on antibiotic prescriptions in the unit is much improved compared to 2017 [64% Vs 36.36%], but needs further improvement.
- Review of duration of antibiotics was better than that of 2017 [85% Vs 63.6%].
- There were at least 19.23% unnecessary antibiotic prescriptions as there was no evidence of infection when reviewed with investigations done. This is a deterioration from 2017 which was 9.1%.
- Request for microbiological investigations is also slightly improved compared to that of 2017 [79.01% Vs 72.7%], but requires further improvement.

## LIMITATIONS

Sample size of the initial audit was very small.

## REFERENCES

1. Medical Microbiology audit template by Royal College of Pathologists (Version 5)
2. Start Smart - Then Focus Antimicrobial Stewardship Tool Kit for English Hospitals 2015 by Public Health England
3. Trust Antimicrobial Guidelines for George Eliot Hospital NHS Trust

## DECLARATIONS

None of the authors have any conflicts of interest.