Category :**Infections + antimicrobials**

A19 - ***Using Positive Reinforcement to Improve Prescribing Behaviours at a Large Teaching Hospital in the UK.***

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Introduction:

Antimicrobials are administered to 70% of patients on Intensive Care Units (ICU), despite less than half having a confirmed infection [1]. Robust antimicrobial stewardship is crucial to tackle resistance. Guidelines recommend antimicrobial prescriptions include the duration and indication [2]. We aimed to use positive re-enforcement to improve adherence to antimicrobial prescribing within our ICU.

Methods:

Baseline data on antimicrobial prescriptions was collected in December 2022 at a 100-bed ICU in the UK. Between February and April 2023, 8 random weeks were selected to review prescriptions and certificates were sent to those prescribers who had met all the required standards. This was repeated in August 2023 to coincide with rotation of the medical work force. Data collected included the number of patients on antibiotics and the number of prescriptions that met the required standards.

Results:

A total of 335 patients were on antimicrobials in the first phase of this study. Baseline data demonstrated that only 29% (n=10) of the prescriptions met the required standard. Over the following 8-weeks there was a significant improvement in prescribing to 70% by week 7 (n=18). In total 127 certificates were issued during this time.

In the second, phase 322 patients were on antimicrobials. Baseline data was similar at 29% (n=12). Again, as the study progressed and positive re-enforcement was implemented, an increase in compliance was observed with a peak of 78% (n=18) in week 6, (Figure 1).

Conclusion:

This study has demonstrated that the use of positive re-enforcement can significantly improve prescribing habits and that a sustained change can be achieved. We propose that positive feedback should be used more widely in critical care to implement behavioural changes and postulate that these may improve patient care.

References:

1. Pandolfo et al. BMJ. Vol 31(3); P199-210. 2022.
2. NICE. Antimicrobial Stewardship. (QS121); P10. 2016.

Image :

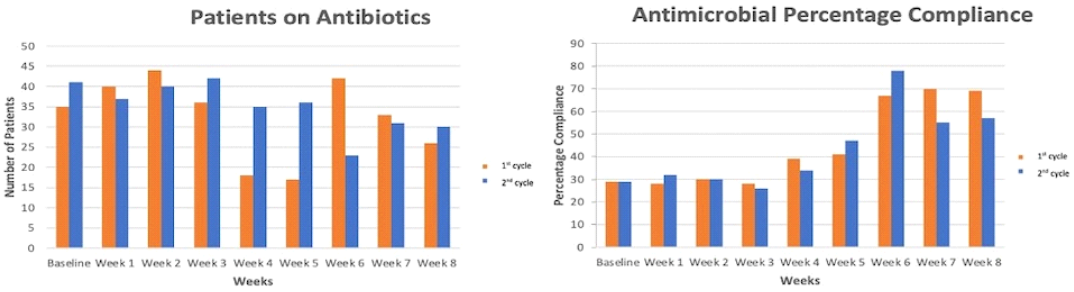

Figure 1. Bar chart comparison of antimicrobial prescribing compliance in audit cycle 1 and 2.