

AB113. 22. An audit of perioperative antibiotic prophylaxis: compliance with local guidelines on the GAPP app

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Background: Antibiotics prophylaxis within 60 minutes before incision has been shown to lower the incidence of postoperative infection rates across all types of surgery. Galway University Hospital provides a phone app with surgical antibiotic prophylaxis guidelines. The objective of this study was to assess and audit the use of antibiotic prescribing in theatre and compare practice to local guidelines.

Methods: One hundred patients' anaesthetics records were randomly selected in the theatre recovery room over a 2-week period. Details regarding procedure name, antibiotics given and timing of administration were collected and the raw data was entered into Microsoft Excel. Descriptive statistics were used to analyse the data and compare current practice to the local antibiotic prescribing guidelines.

Results: One hundred patients who had procedures under orthopaedics, ENT, gynaecology, GI, max fax, plastics, urology and vascular were audited. Overall there was 84.1% concordance with antibiotic prescribing guidelines in terms of antibiotic administration. Antibiotics were indicated in 53% (53/100) of cases and 85% (45/53) of these were

given in accordance to the guidelines. Antibiotics were not indicated in 12% (12/100) of cases and were correctly not given in 83.3% (10/12) of procedures. No case omitted antibiotics where they were indicated. No specific guidelines were given for plastic surgery procedures therefore data for these cases could not be interpreted. In a further 19% (19/100) of cases it was unclear if antibiotics were indicated for specific patients e.g., if patient was deemed 'high risk' of infection in laparoscopic cholecystectomy and not all procedures were listed in the guidelines. 16.6% (2/12) of cases administered antibiotics when not indicated. Antibiotics were given in 69% (69/100) of cases. In relation to timing of antibiotic administration, 2.9% (2/69) of cases had no time documented, 4.3% (3/69) were given before theatre, 29% (20/69) were given at the time anaesthetic monitoring commenced and 63.8% (44/69) documented that antibiotics were given at various times after monitoring began.

Conclusions: The 'GAPP app' provides antimicrobial prescribing guidelines which are easily accessible in theatre via any smart phone. In the majority of cases audited antibiotics were prescribed according to local guidelines. Timing of antibiotic dose in relation to incision time was impossible to determine as incision time was not documented. A tick box on the anaesthetic record could alleviate this problem. Guidelines could be expanded to include a wider range of procedures, particularly in relation to plastic surgery.

Keywords: Anaesthesia; antibiotics; peri-operative; prophylaxis; technology

doi: 10.21037/map.2019.AB113

Cite this abstract as: Walsh S, Al-Rikabi M. An audit of perioperative antibiotic prophylaxis: compliance with local guidelines on the GAPP app. *Mesentery Peritoneum* 2019;3:AB113.