

## Surgery SOP

### Systemic antimicrobial prescribing at the Hospital for Small Animal (HfSA)

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Veterinary Surgeons working within the Easter Bush Campus must prescribe antimicrobials responsibly to ensure their safe, effective use and minimise antimicrobial resistance as required by the Royal College of Veterinary Surgeons (RCVS) Guide to Professional Conduct and Practice Standards Scheme.

The Veterinary Medicines Directorate (VMD) states that “Responsible antibiotic use under the cascade requires vets to take into consideration not only the most appropriate active substance(s) but also the most appropriate formulation, the posology (i.e. determining the most appropriate dose), the current pattern of resistance in their locality, an awareness of how to reduce selection pressure, and related factors (e.g. good biosecurity and husbandry/hygiene, avoiding surgical sepsis etc.). If a vet can demonstrate that these steps have been taken, then cascade use of antibiotics is supported.”

It should be noted that the VMD does not support the administration of antibiotics for the purpose of prevention of disease (i.e. prophylaxis) except under exceptional circumstances specified in this SOP, which is only relevant to surgical HfSA department. All other disciplines should follow guidelines in the overarching SOP “Pharmacy SOP 3.2 Systemic antimicrobial prescribing at the Hospital for Small Animal”.

#### Prophylactic use of antimicrobials

Peri-operative antimicrobials are **indicated** for:

- Routine orthopaedic procedures where surgical implants are placed (such as fracture stabilisation with plates and screws, tibial plateau levelling osteotomies, total hip replacements).
- Routine soft tissue procedures with expected contamination (such as surgical entry into a contaminated viscus, such as the gastrointestinal tract).
- Surgical procedures of prolonged duration (>90 minutes), pre-existing infection at site, surgical management where there is devitalised tissue and immunocompromised patients)

For these, the choice of antimicrobial is:

- Cefuroxime (2<sup>nd</sup> line of antimicrobial treatment as described in Pharmacy SOP 3.2)\* at a dose of 20mg/kg which is administered 30 minutes prior to the start of surgery. This should be repeated every 60-90 minutes during the procedure.

\*Prophylactic of choice is a 2<sup>nd</sup> generation cephalosporin due to high incidence of hypersensitivity reactions associated with previously used 1<sup>st</sup> line of antimicrobial treatment (amoxicillin-clavulanate).

Alternative antimicrobials may be considered where there is a specific risk from bacteria known or suspected to be resistant to cefuroxime. This should be discussed with Dr Tim Nuttall and the senior surgeon involved in the case before surgery. The justification for this should be recorded in the animal's clinical notes on Provet®.

Pre-operative and post-operative antimicrobials can be considered in specific cases (e.g. open wounds, contaminated wounds, published evidenced-based outcomes etc.). The choice of antimicrobial should be based on the Pharmacy SOP 3.2 (see above) taking into account the site of infection, the impact of surgery and implants, and the known or likely bacteria and their antimicrobial susceptibility.

Peri-operative antimicrobials are **not indicated** for:

- For routine and clean procedures where surgical implants are not placed and/or that last <90 minutes (such as arthroscopy or minor/moderate oncological resections).