Antimicrobial prescribing for canine pyoderma in UK primary-care practices
Summers JF*, Hendricks A*, Brodbelt DC*

*Royal Veterinary College, London (UK)

Background:
Concern has been raised regarding the potential contributions of veterinary antimicrobial use to increasing levels of resistance in bacteria critically important to human health1. Canine pyoderma is a frequent, often recurrent diagnosis in pet dogs, usually attributable to secondary bacterial infection of the skin2. Antimicrobials are recommended for lesion resolution3,4.

Aims:
• To estimate pyoderma prevalence in a UK vet-Visiting canine population.
• To describe case characteristics & treatment prescribed in a large number of dogs diagnosed with pyoderma in UK primary-care practice.

Methods:
Electronic patient record (EPR) data routinely collected in 2010 by UK primary-care veterinary clinics participating in VetCompass5 were used to identify dogs diagnosed with pyoderma. Patient & prescribing data (one pyoderma episode per dog) were extracted. Additional case data were reviewed in a subset randomly selected for case validation.

Results:
Of 54,600 dogs presented to 73 participating practices in 2010, 683 (1.3%) had at least 1 recorded pyoderma diagnosis.

Superficial pyoderma was recorded most frequently (Table 1):

Table 1: depth of pyoderma lesions in the 90 episodes reviewed in detail

<table>
<thead>
<tr>
<th>Recorded pyoderma type</th>
<th>Number of dogs</th>
<th>% of 90 dogs reviewed in detail</th>
</tr>
</thead>
<tbody>
<tr>
<td>Surface</td>
<td>2</td>
<td>2.2</td>
</tr>
<tr>
<td>Superficial</td>
<td>37</td>
<td>41.1</td>
</tr>
<tr>
<td>Deep</td>
<td>6</td>
<td>6.7</td>
</tr>
<tr>
<td>Mixed (deep + other)</td>
<td>5</td>
<td>5.6</td>
</tr>
<tr>
<td>Unclear, ambiguous or absent clinical description</td>
<td>40</td>
<td>44.4</td>
</tr>
<tr>
<td>Total</td>
<td>90</td>
<td>100</td>
</tr>
</tbody>
</table>

Agents most frequently prescribed were amoxicillin-clavulanate, cefalexin, clindamycin & cefovecin (Figure 2).

Prescribed daily doses were below minimum manufacturers recommended daily dose in 26% of 43 dogs with sufficient information for dose evaluation.

Systemic antimicrobials were prescribed for fewer than 14 days in around 40% of cases reviewed in detail (Figure 3).

Conclusions:
• Antimicrobial prescribing behaviour for treatment of canine pyoderma was variable but frequently appeared inconsistent with current recommendations for clinically effective but prudent use3,4.
• Use of clinical data from primary practice EPRs can provide valuable insight into common clinical conditions and associated prescribing.

Acknowledgements: Our thanks go to the participating practices for sharing their EPR data, to Peter Dron & to Noel Kennedy (RVC).

References
6. PROTECT poster (British Small Animal Veterinary Association & Small Animal Medicine Society advice on the use of antibiotics) [http://www.bsava.com/Resources/PROTECT.aspx]