

VetTeamAMR

Launch event for companion animal practices
Tuesday 20 June at 7pm (BST)

rcvsknowledge.org/VetTeamAMRequine



Antimicrobial Stewardship in itchy dogs

Anette Loeffler

Professor in Veterinary Dermatology and Cutaneous Bacteriology

Royal Veterinary College

Nothing “anti-itch” in antimicrobials

The Veterinary Journal 224 (2017) 18–24

Contents lists available at [ScienceDirect](#)

 **The Veterinary Journal** 

journal homepage: www.elsevier.com/locate/tvj

Original article

Patterns of antimicrobial agent prescription in a sentinel population of canine and feline veterinary practices in the United Kingdom 

D.A. Singleton^{a,*}, F. Sánchez-Vizcaíno^{a,b}, S. Dawson^c, P.H. Jones^a, P.J.M. Noble^c, G.L. Pinchbeck^a, N.J. Williams^a, A.D. Radford^a

^aInstitute of Infection and Global Health, University of Liverpool, Leahurst Campus, Chester High Road, Neston, CH64 7TE, United Kingdom
^bNational Institute for Health Research, Health Protection Research Unit in Emerging and Zoonotic Infections, The Farr Institute @ HeRC, University of Liverpool, Waterhouse Building, Liverpool, L69 3GL, United Kingdom
^cInstitute of Veterinary Science, University of Liverpool, Leahurst Campus, Chester High Road, Neston, CH64 7TE, United Kingdom

62,655 consultations for pruritus: 51% prescribed antimicrobials (25.5% systemic)

Summers et al. *BMC Veterinary Research* 2014, **10**:240
<http://www.biomedcentral.com/1746-6148/10/240>



RESEARCH ARTICLE **Open Access**

Prescribing practices of primary-care veterinary practitioners in dogs diagnosed with bacterial pyoderma

Jennifer F Summers^{1*}, Anke Hendricks² and David C Brodbelt¹

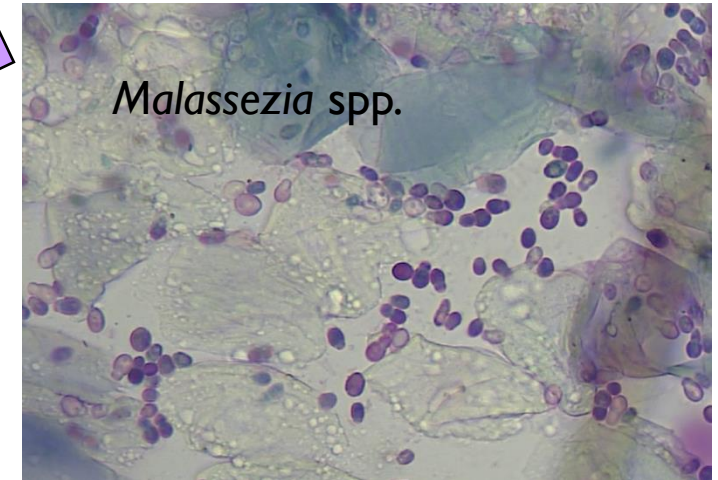
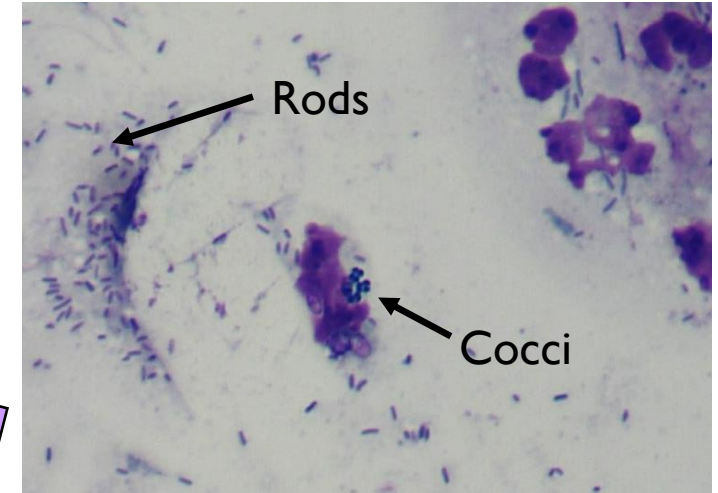
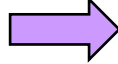
683 UK with pyoderma
92% received systemic antimicrobial therapy

Opportunities for better use of antimicrobials animals with skin disease



- **Opportunity 1** Confirm it's bacterial – **cytology**
- **Opportunity 2** Treat **primary cause** – prevent recurrences
- **Opportunity 3** **Topical** antibacterial therapy can be effective on its own
- When systemic therapy is needed:
 - **Opportunity 4** Which bug/which drug?
 - **Opportunity 5** Shorter duration replace with closer monitoring
- Awareness, communication and guidelines

In-house cytology: quick, cheap and extremely valuable

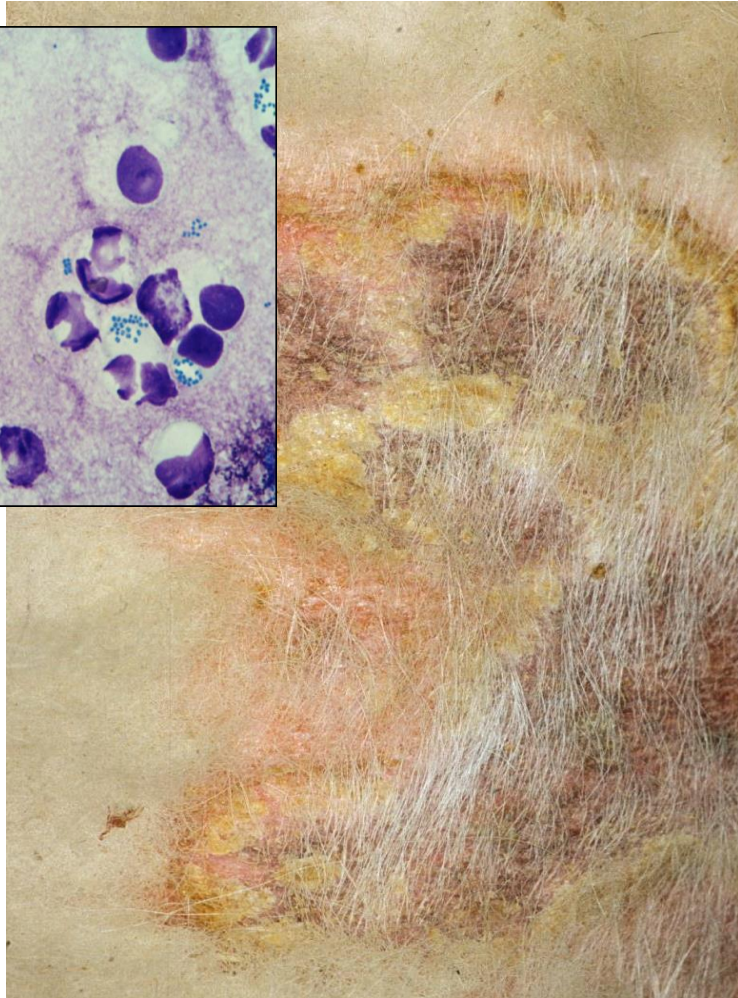
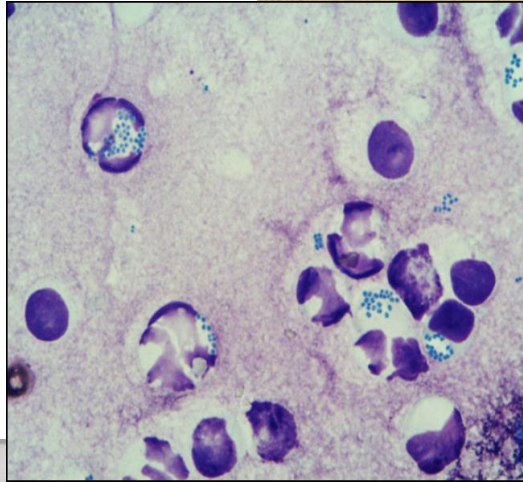


X100 objective, oil immersion

Opportunity 1

Opportunity 1

Confirm bacterial involvement



Staphylococcal pyoderma

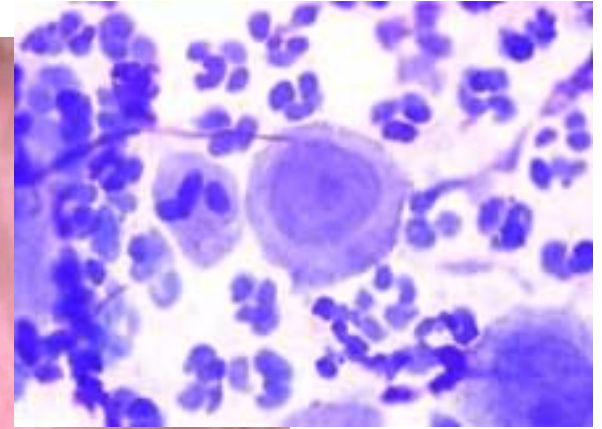
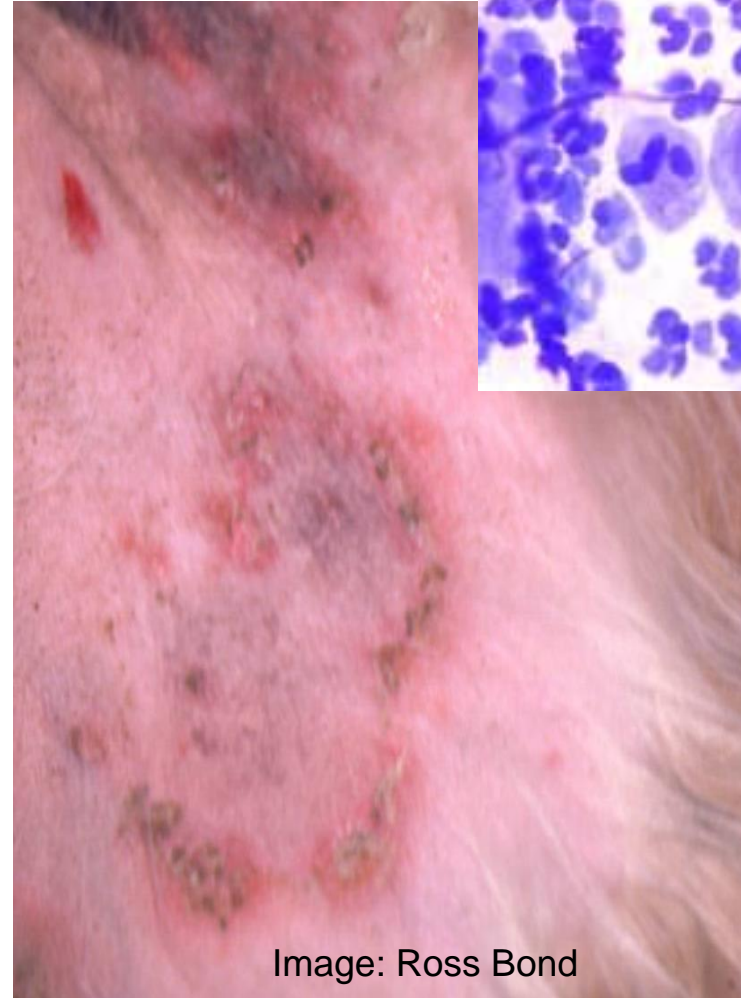


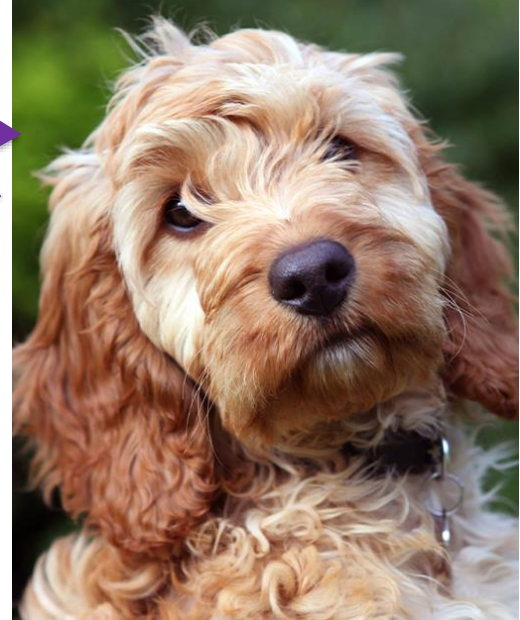
Image: Ross Bond

Pemphigus foliaceus



Why do dogs get pyoderma?

Opportunity 2



30 dogs with recurrent pyoderma, >3 episodes/year

(Bensignor & Germain, 2014)

- Allergic skin disease 74%
- Endocrinopathy 11%
- Demodicosis 4% (and 11% other and none)

157 dogs with recurrent pyoderma

(Seckerdieck & Mueller 2018)

- Allergic skin disease 63
- Hypothyroidism 12
- Hyperadrenocorticism 6
- Demodicosis 16
- Others

Treat the **primary cause** before the pyoderma recurs

Editorial > Vet Rec. 2012 Nov 10;171(19):472-3. doi: 10.1136/vr.e7516.

Pulse antibiotic therapy: it's time to cut back

Tim Nuttall

Olivry et al. *BMC Veterinary Research* (2015) 11:210
DOI 10.1186/s12917-015-0514-6

BMC
Veterinary Research

CORRESPONDENCE


Open Access



Treatment of canine atopic dermatitis: 2015 updated guidelines from the International Committee on Allergic Diseases of Animals (ICADA)

Thierry Olivry^{1*}, Douglas J. DeBoer², Claude Favrot³, Hilary A. Jackson⁴, Ralf S. Mueller⁵, Tim Nuttall⁶, Pascal Prélaud⁷
and for the International Committee on Allergic Diseases of Animals

Opportunity 2

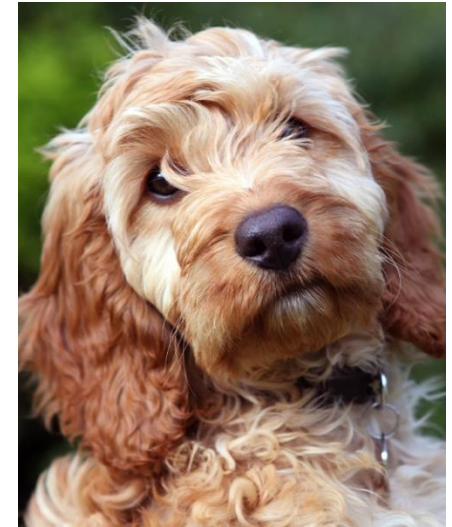


Resolve
pyoderma, then
re-assess.
Remaining signs
to diagnose
primary cause

Not always allergic..



Opportunity 2



Topical antibacterial therapy instead of systemic

Opportunity 3

- To prevent recurrences long-term
- To resolve superficial pyoderma - Good evidence for efficacy
- Resistance testing NOT needed (no breakpoints)
- Effective if owner & dog compliant



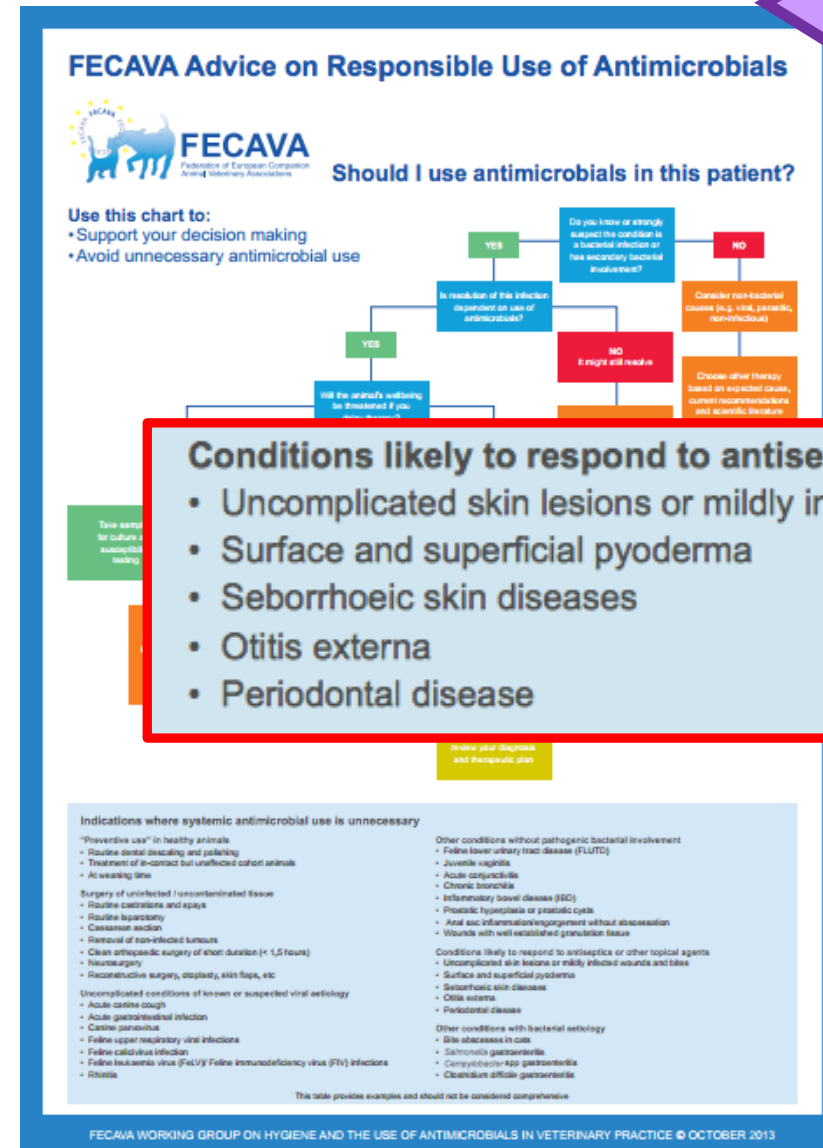
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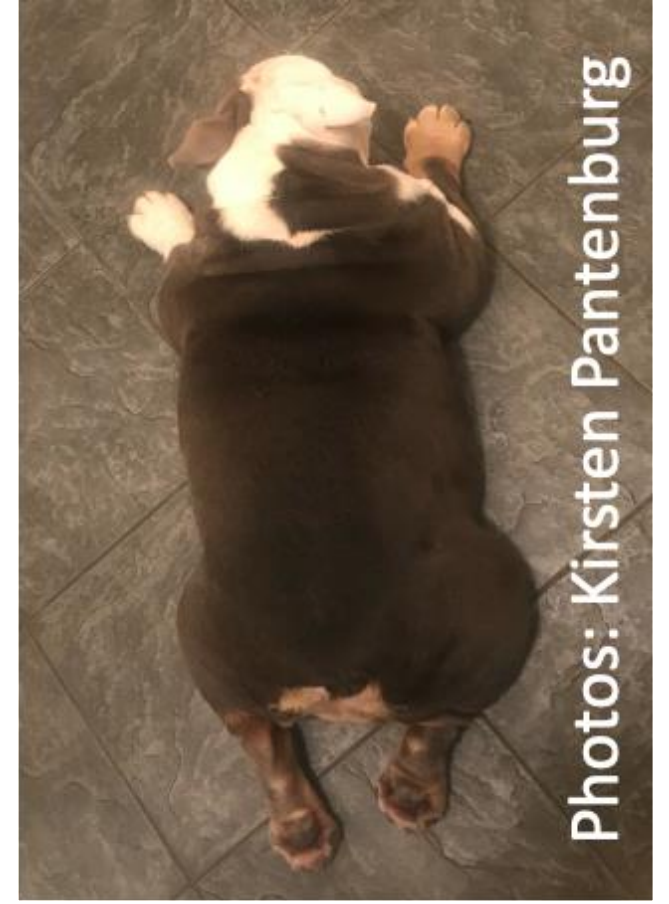
Indications where systemic antimicrobial use is unnecessary

Opportunity 3

- “Preventative” use in healthy animals
- Clean surgery
- Uncomplicated conditions of known or suspected viral aetiology
- Other conditions without pathogenic bacterial involvement
- Conditions likely to respond to antiseptics or other topical agents
- Other conditions WITH bacterial aetiology



Topical therapy can work on its own: superficial pyoderma



Photos: Kirsten Pantenburg

Bulldog puppy with superficial MRSP pyoderma:
Before, 3 weeks & 3 months after twice weekly 2% chlorhexidine/2% miconazole washes

When systemic antimicrobials are indicated...

Opportunity 4

New pyoderma guidelines end of 2023



Veterinary Dermatology

Vet Dermatol 2014; 25: 163–e43

DOI: 10.1111/vde.12118

Guidelines for the diagnosis and antimicrobial therapy of canine superficial bacterial folliculitis (Antimicrobial Guidelines Working Group of the International Society for Companion Animal Infectious Diseases)

Andrew Hillier*, David H. Lloyd†, J. Scott Weese‡, Joseph M. Blondeau§, Dawn Boothe¶, Edward Breitschwerdt**, Luca Guardabassi††, Mark G. Papich**, Shelley Rankin‡‡, John D. Turnidge§§ and Jane E. Sykes¶¶

Research



OPEN ACCESS

Suggested guidelines for using systemic antimicrobials in bacterial skin infections (2): antimicrobial choice, treatment regimens and compliance

L. Beco, E. Guaguère, C. Lorente Méndez, C. Noli, T. Nuttall, M. Vroom

Veterinary Dermatology

Vet Dermatol 2017; 28: 304–e69

DOI: 10.1111/vde.12444

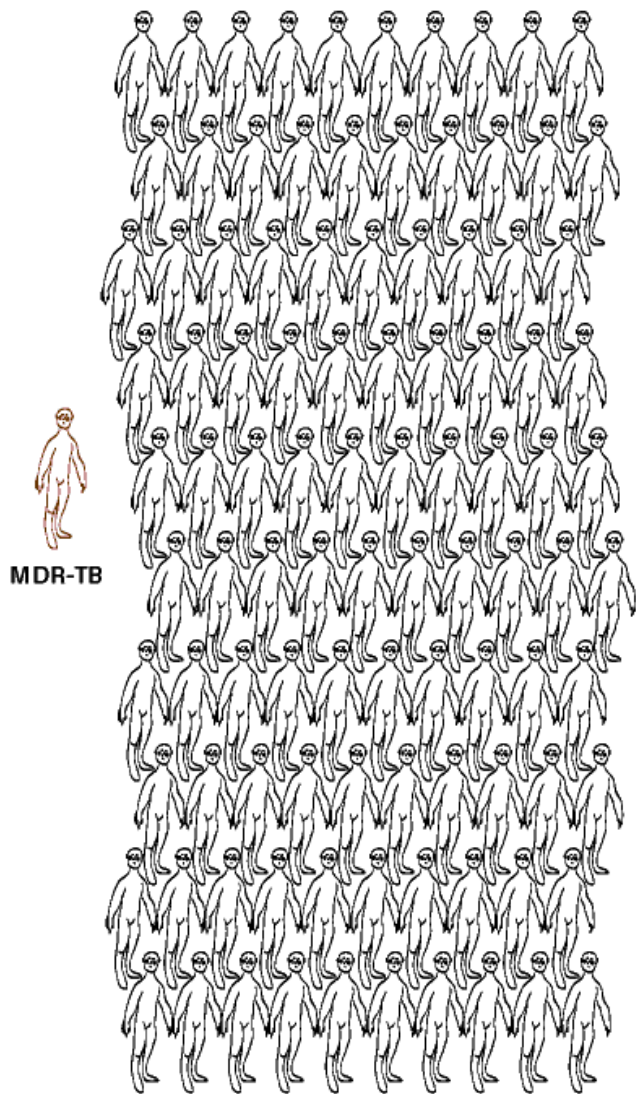
Recommendations for approaches to meticillin-resistant staphylococcal infections of small animals: diagnosis, therapeutic considerations and preventative measures.

Clinical Consensus Guidelines of the World Association for Veterinary Dermatology

Daniel O. Morris*, Anette Loeffler†, Meghan F. Davis‡, Luca Guardabassi§ and J. Scott Weese¶

**IT'S CHEAPER TO TREAT PATIENTS
RIGHT THE FIRST TIME:**

Treating one MDR-TB patient costs the
same as treating 100 with regular TB



Source: World Health Organization/CDS

When and how to culture?

- Never contraindicated but cost to owners
- Always for deep pyoderma, always when risk factors for multidrug-resistance, immediately when empirical treatment does not work
- Voluntary in the UK, differences between countries
- Efforts on diagnostic stewardship ongoing

Susceptibility testing obligatory in some countries: for fluoroquinolones or 3rd generation cephalosporins (e.g. Scandinavia, Germany since February 2018)

How long to treat for ?

Opportunity 5

Aim: Shorter duration
complemented by
topical therapy & clinical
monitoring



Superficial folliculitis

- Always add topical therapy
- 14d, re-assess while on therapy
- Primary lesions resolved
- Correct primary cause



Deep pyoderma

- Start treatment when lab results available (unless risk of septicemia)
- 3 weeks, then re-assess & repeat cytology
- Always add topical therapy
- Stop when no bacteria on cytology and no draining lesions
- Or continue and re-assess fortnightly

Take home goals

- More in-house **cytology**
- More **topical** therapy
- Treat the **underlying causes**
- Systemics **more** targeted

- Flea prophylaxis & e.g. glucocorticoids
- Monitoring/re-visits to reduce the duration of systemic therapy

