As discussed in Part 1 of this series (Disease Overview & Diagnosis), canine pyoderma can be classified by depth of infection as:

- Superficial or surface pyoderma
- Deep pyoderma.

Treatment decisions for canine recurrent pyoderma include consideration of the:

- Distribution of lesions (localized versus generalized)
- Underlying cause of recurrent infections.

TREATMENT OPTIONS

The classifications above help determine the treatment regimen for each case of pyoderma:

- **Very superficial or localized cases** of canine pyoderma may be treated with topical antibacterial medications alone (Table 1, page 38).

- **Generalized or deep cases** are usually best treated with a combination of oral antibiotics and topical antibacterial therapies (Table 2, page 40).

- **In very pruritic patients**, a short (1–2 week) course of oral anti-inflammatory doses of prednisone may be helpful; however, antibiotics should always be continued beyond steroid discontinuation. Long-acting, injectable steroids should never be used in cases of canine pyoderma, as they will make healing difficult to assess, impair immune response to infection, and potentially have a harmful effect on the hypothalamic–pituitary–adrenal (HPA) axis.

This is the second article in a 3-part series discussing the latest information available regarding canine pyoderma. The first article, Challenges & New Developments in Canine Pyoderma: Disease Overview & Diagnosis, can be found at todaysveterinarypractice.com under Article Lists.
**TOPICAL THERAPY**

**Localized or Superficial Infection**

For localized areas of infection, topical antimicrobial ointments or creams containing 2% mupirocin or silver sulfadiazine applied twice daily can be very helpful.

- Although helpful in some cases for short-term therapy, sprays and ointments that contain combinations of steroids and antibiotics are NOT recommended for long-term use due to potential for cutaneous atrophy (Figures 1 and 2).
- Neomycin has more potential for allergic sensitization compared to other topical antibiotics, and susceptibility is variable for gram-negative organisms.
- Polymyxin B and bacitracin in combination may be effective for both gram-negative and gram-positive organisms; however, they are rapidly inactivated by organic debris, including pus, and do not penetrate well.¹

**Generalized or Deep Infection**

Unless skin infection is very mild or shampoo therapy is done every 1 to 2 days, topical therapy alone is unlikely to resolve a more generalized or severe pyoderma, but it can be very helpful in abbreviating infection when used in combination with systemic antibiotics.

- Most clinicians prefer chlorhexidine products as first-line therapy.
- Antibacterial shampoos need contact with the skin for 5 to 15 minutes to provide the desired therapeutic effect (label recommendations should be followed and clients should receive specific instructions on use).
- In dogs with deep pyoderma or heavily crusted lesions, clipping of lesions or whirlpool therapy may be beneficial.

**Shampoo Therapy**

Shampoo frequency depends on severity of infection:

- **In severe cases or in cases of methicillin-resistant pyoderma**, shampoo therapy every 1 to 2 days is recommended.
- **In milder pyoderm cases**, twice weekly shampoo therapy may be sufficient.
- **For maintenance prophylactic therapy**, minimum once weekly antibacterial shampoo therapy is recommended; leave-on antibacterial conditioners are also very helpful.

**Other Therapy**

Vetericyn All Animal Wound and Infection Treatment (vetericyn.com), an oxychlorine compound, has had anecdotal success and safety in the treatment of canine pyoderma. See todaysveterinarypractice.com/resources.asp to view and download a comprehensive table outlining Topical Antibacterial Products.

**SYSTEMIC ANTIMICROBIAL THERAPY**

Systemic antibiotics are used for bacterial skin infections that may not be treatable with topical therapies alone. Antibiotic choice for a particular case is dependent on multiple factors, including:

- Depth of infection
- Culture and sensitivity results (if applicable)
- Potential drug side effects (ie, avoiding cephalixin-induced gastrointestinal adverse effects in a dog with a historically sensitive stomach or sulfa drugs in a dog with pre-existing dry eye or keratoconjunctivitis sicca)
- Age- or breed-related predisposition for side effects
- Drug cost
- Frequency of administration, which affects client compliance.²

**Antibiotic Action**

Antibiotics are either time dependent or concentration dependent in their action.

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1. In recurrent cases of canine pyoderma it is essential to identify and treat the underlying cause. Depending on clinical presentation, age of onset, seasonality, and other clinical signs, this may include:

- Stringent flea control
- Deep scrapings for Demodex
- Trial treatment for scabies
- Hypoallergenic diet trial
- Intradermal allergy testing and desensitization
- Laboratory analysis to identify endocrinopathies
- Skin biopsy for keratinization disorders.

2. Figure 2. Cutaneous atrophy and tearing secondary to chronic administration of a spray containing triamcinolone

3. Figure 1. Cutaneous atrophy and milia formation secondary to chronic topical administration of a spray containing betamethasone
Table 1: Canine Superficial or Surface Pyoderma: Clinical Signs & Treatment

<table>
<thead>
<tr>
<th>Pyoderma</th>
<th>Clinical Signs</th>
<th>Treatment</th>
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</thead>
<tbody>
<tr>
<td><strong>SURFACE PYODERMA</strong></td>
<td></td>
<td></td>
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<tr>
<td>Impetigo</td>
<td>• Nonpruritic pustules not associated with follicles</td>
<td>• Apply topical antibacterial therapy (ie, chlorhexidine)</td>
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<tr>
<td></td>
<td>• On sparsely haired areas of the skin, such as inguinal area</td>
<td>• Rarely, refractory lesions may require oral antibiotics for 10 to 14 days</td>
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<td></td>
<td>• Pustule results in epidermal collarettes and scaling</td>
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</tr>
<tr>
<td></td>
<td>• Often seen in young puppies(^1)(^2)</td>
<td></td>
</tr>
<tr>
<td>Intertrigo (Fold Dermatitis/Pyoderma) (Figure 3)</td>
<td>• Dermatitis occurs in areas of skin folding, such as face, lip, and tail folds and vulvar area</td>
<td>• Cleanse area every 1 to 3 days with antibacterial wipe, flush, or shampoo</td>
</tr>
<tr>
<td></td>
<td>• Lesions are areas of moist, inflammatory dermatitis with surface bacterial overgrowth(^2)</td>
<td>• Apply topical antibiotic cream or solution daily for 5 to 7 days</td>
</tr>
<tr>
<td></td>
<td>• Refractory cases may require surgical excision of excessive folds(^2)</td>
<td></td>
</tr>
<tr>
<td>Mucocutaneous Pyoderma (Figures 4–6)</td>
<td>• Dermatitis occurs on lip margins, eyelids, nares, or anus(^2)</td>
<td>• Apply topical antibacterial therapy (ie, mupirocin Q 12 H for 14 days)</td>
</tr>
<tr>
<td></td>
<td>• Erythema, inflammation, and crusting +/- depigmentation</td>
<td>• For severe cases, systemic antibiotics should be administered for 3 to 4 weeks(^2)</td>
</tr>
<tr>
<td>Pyotraumatic Dermatitis (Acute Moist Dermatitis) (Figure 7)</td>
<td>• Areas of acute, painful, moist, exudative, inflammatory dermatitis created by self trauma</td>
<td>• May need sedation to clip/clean</td>
</tr>
<tr>
<td></td>
<td>• Often occurs in thick-coated dogs with underlying flea allergy or atopic dermatitis</td>
<td>• Follow with a 1- to 2-week course of oral steroid and topical astringents/antibacterial products +/- topical steroids or pramoxine; avoid products containing alcohol</td>
</tr>
<tr>
<td></td>
<td>• Peripheral papules/pustules or thickened lesions indicate pyotraumatic folliculitis(^1)(^2)</td>
<td>• If peripheral papules/pustules noted or lesion is thickened, a 2- to 4-week course of systemic antibiotics is indicated.(^1)</td>
</tr>
<tr>
<td><strong>SUPERFICIAL PYODERMA</strong></td>
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<tr>
<td>Bacterial Folliculitis (Figures 8–10)</td>
<td>• Primary lesions: Papules (1–2 mm raised and/or crusted, pink or red bumps) and pustules</td>
<td>• Apply antibacterial shampoos, conditioners, and/or sprays</td>
</tr>
<tr>
<td></td>
<td>• Secondary lesions: Expanding areas of alopecia; surrounding scaling (epidermal collarettes), crusts, hyperpigmentation, and lichenification(^1)(^2)</td>
<td>• Administer 3-week minimum course of systemic antibiotics(^1)</td>
</tr>
<tr>
<td>Bacterial Overgrowth Syndrome (Figure 11)</td>
<td>• Erythema, scaling, lichenification, hyperpigmentation, odor, pruritus, and eventual alopecia</td>
<td>• Apply antibacterial shampoos, conditioners, and/or sprays</td>
</tr>
<tr>
<td></td>
<td>• Often present on ventral trunk, axillary, and inguinal areas</td>
<td>• Administer 3-week minimum course of systemic antibiotics(^2)</td>
</tr>
<tr>
<td></td>
<td>• No papules, pustules, or epidermal collarettes present(^1)</td>
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</tbody>
</table>

Note: All oral antibiotic treatment should be continued 1 to 2 weeks past clinical resolution; a recheck visit is needed prior to discontinuation of therapy.

References
Antibiotic Selection

When choosing empiric antibiotics, it is first important to avoid antibiotics to which staphylococcal bacteria are usually intrinsically resistant, including amoxicillin, ampicillin, penicillin, tetracycline, and nonpotentiated sulfonamides.

- **Antibiotic classes** that are usually effective for canine pyoderma include:
  - Cephalosporins
  - Macrolides
  - Lincosamides
  - Potentiated sulfonamides
  - Beta–lactamase-resistant penicillins
  - Fluoroquinolones
  - Aminoglycosides
  - Chloramphenicol.

- **For first-line therapy** for canine pyoderma, most veterinary dermatologists use:
  - Cephalosporins
  - Clavulated penicillin
  - Potentiated sulfonamides.

- **For second-line therapy** for deep, fibrotic infections and/or *Pseudomonas* infections and when no other reasonable antibiotic choices are available, fluoroquinolones are used when indicated by culture and sensitivity. Veterinary-labeled fluoroquinolones (which have near complete bioavailability) are preferred over generic ciprofloxacin due to marked variability of ciprofloxacin absorption in dogs.  
  - In one study, the oral absorption of generic ciprofloxacin tablets in dogs ranged from 98% to 29% and even at a high oral dose of 20 to 30 mg/kg, the area-under-the-curve (AUC) did not attain a high enough level for bacteria considered “susceptible.” This may result in therapeutic failure and increased selection of resistant bacteria, particularly when low doses are used.
**Table 2. Deep Pyoderma: Clinical Signs & Treatment**

<table>
<thead>
<tr>
<th>Deep Pyoderma</th>
<th>Clinical Signs</th>
<th>Treatment</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Acral Lick Dermatitis</strong></td>
<td>• Alopecic, firm, raised, thickened plaque or nodule that may become ulcerated</td>
<td>• Administer 8-week minimum course of systemic antibiotics</td>
</tr>
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<td>(Figure 12)</td>
<td>• Often found on the dorsal carpus or dorsolateral metatarsus</td>
<td>• Prevent licking with Elizabethan collar or bandaging</td>
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<tr>
<td></td>
<td>• Multifactorial, self-inflicted (by licking) disorder often associated</td>
<td>• Identify and treat underlying cause(s)</td>
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<tr>
<td></td>
<td>with underlying atopic dermatitis, food allergy, trauma, endocrinopathy, bone</td>
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</tr>
<tr>
<td></td>
<td>pain, neuropathy, or behavioral causes</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• Perpetuated by secondary deep pyoderma</td>
<td></td>
</tr>
<tr>
<td><strong>Bacterial Furunculosis</strong></td>
<td>• Focal to multifocal areas of thick crusting, alopecia, inflamed bullae,</td>
<td>• Administer 6- to 12-week course of systemic antibiotics</td>
</tr>
<tr>
<td>(Figure 13)</td>
<td>and/or ulcerative draining skin lesions, often pruritic and/or painful</td>
<td>• Apply antibacterial shampoos/sprays frequently</td>
</tr>
<tr>
<td></td>
<td>• Often associated with underlying atopic dermatitis, food allergy,</td>
<td>• Identify and address underlying cause(s)</td>
</tr>
<tr>
<td></td>
<td>endocrinopathy, demodiosis, etc</td>
<td></td>
</tr>
<tr>
<td><strong>Callus Furunculosis</strong></td>
<td>• Inflammation, swelling, ulceration, and draining tracts affecting</td>
<td>• Treat infection with mupirocin Q 12 H and 6-week minimum course of</td>
</tr>
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<td></td>
<td>pressure points, such as lateral elbows/ hocks or sternal callous</td>
<td>systemic antibiotics</td>
</tr>
<tr>
<td></td>
<td>in deep-chested breeds</td>
<td>• Use hydrotherapy (see Physical Rehabilitation for Veterinary Practices,</td>
</tr>
<tr>
<td></td>
<td>• Most commonly affects giant breeds</td>
<td>page 14) and bandaging for open lesions</td>
</tr>
<tr>
<td><strong>Canine Acne</strong></td>
<td>• Nonpainful/nonpruritic papules, pustules, bullae +/- draining tracts on</td>
<td>• Ensure dog lays on padded bedding or has padded dressings placed over</td>
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<td>(Figure 14)</td>
<td>the chin or muzzle</td>
<td>wound (ie, DogLeggs, dogleggs.com)</td>
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<td></td>
<td>• More common in large, young, short-coated dogs</td>
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<td></td>
<td>• May be induced by friction or trauma to the chin, which pushes the short</td>
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<td></td>
<td>hairs under the skin</td>
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<tr>
<td><strong>Pedal Folliculitis/Furunculosis</strong></td>
<td>• Interdigital erythema, pustules, bullae, nodules, fistulas, alopecia, and</td>
<td>• Administer mupirocin Q 12 H or benzoyl peroxide gel Q 24 H until lesions</td>
</tr>
<tr>
<td>(Figures 15 and 16)</td>
<td>swelling; variably painful and pruritic</td>
<td>resolve; then 1 to 2 times weekly as needed for maintenance</td>
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<td></td>
<td>• Often seen in large, short-coated dogs</td>
<td>• For severe cases, administer a 4-week minimum course of systemic</td>
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<td></td>
<td>• May be associated with regional lymphadenopathy and/or swelling of</td>
<td>antibiotics</td>
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<td></td>
<td>associated metacarpus or metatarsus</td>
<td></td>
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<tr>
<td></td>
<td>• Often associated with underlying atopic dermatitis, food allergy,</td>
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<td></td>
<td>endocrinopathy, demodiosis, etc</td>
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<tr>
<td></td>
<td>• In some cases isolated lesions are associated with abnormal weight</td>
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<td>bearing and formation of interdigital cysts, often between P4 and P5</td>
<td></td>
</tr>
<tr>
<td><strong>Post-Grooming Furunculosis</strong></td>
<td>• Usually occurs within 24 to 48 H after grooming</td>
<td>• Administer 6- to 12-week course of systemic antibiotics</td>
</tr>
<tr>
<td>(Figure 17)</td>
<td>• Areas of intense localized erythema and swelling that evolve into</td>
<td>• Identify and address underlying cause(s)</td>
</tr>
<tr>
<td></td>
<td>punctuate foci of erythema, erosion, painful hemorrhagic bullae,</td>
<td></td>
</tr>
<tr>
<td></td>
<td>and drainage</td>
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<tr>
<td></td>
<td>• Lesions are usually on the dorsal trunk and occur more commonly</td>
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</tr>
<tr>
<td></td>
<td>in short-coated dogs</td>
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</tr>
<tr>
<td></td>
<td>• Affected dogs may be lethargic or febrile</td>
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<tr>
<td></td>
<td>• <em>Staphylococcus pseudintermedius</em>, <em>Pseudomonas</em>, <em>Proteus</em>, and</td>
<td></td>
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<tr>
<td></td>
<td><em>Escherichia coli</em> have been grown in pure or mixed culture from</td>
<td></td>
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<tr>
<td></td>
<td>lesions.</td>
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<tr>
<td></td>
<td>• Causal factors include contaminated shampoos or grooming apparatus</td>
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<tr>
<td></td>
<td>and over-zealous scrubbing of short hairs “against the grain”</td>
<td></td>
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</tbody>
</table>

**Notes:**
- In deep pyoderma, all oral antibiotic treatment should be continued 2 to 3 weeks past clinical resolution; a recheck visit is needed prior to discontinuation of therapy.
- Ideally, antibiotic selection should always be based on culture and sensitivity for any case of deep pyoderma.

**References**
• Due to side effects and toxicity potential, aminoglycosides and chloramphenicol are only used, based on culture/sensitivity data, as a last resort and with careful laboratory monitoring in cases of methicillin-resistant infections.

Antibiotic Administration
After an antibiotic has been selected, it should be dispensed at the correct dosage, administered at the correct dosing interval, and used for a sufficient period. Underdosing an antibiotic due to client concerns about cost will only be more expensive in the long run due to increased time to cure and increased chance of inducing bacterial resistance, necessitating more expenses, such as cultures and additional antibiotic courses.

The duration of antibiotic therapy depends on several factors, including depth of pyoderma, underlying diseases, and use of concomitant topical therapies.

• In general, superficial pyoderma usually resolve with a 3-week course of an antimicrobial; treatment should continue 1 to 2 weeks beyond healing/resolution of cutaneous lesions.

• For deep pyoderma, a 6- to 12-week course of treatment (3 weeks beyond resolution of cutaneous lesions) or even longer may be required to resolve deep pockets of infection.

• Regular rechecks are important to determine response to therapy and need for medication refills or therapy modifications.

See todaysveterinarypractice.com/resources.asp to view and download a comprehensive table outlining Commonly Used Antibiotics for Canine Pyoderma.

IMMUNOSTIMULANTS
When an underlying cause cannot be found in cases of canine recurrent pyoderma, use of immunostimulants may be of benefit. Two commercial bacterins are currently available.

Staphage Lysate
Staphage lysate (SPL, delmont.com) is derived from lysed-killed S. aureus and is given subcutaneously. In one study of 21 dogs with idiopathic superficial recurrent pyoderma treated with either bacterin or placebo (and an initial 6-week course of oral antibiotics), dogs given antibiotics plus the bacterin (n = 13) had a significantly better response after 18 weeks of treatment than those given antibiotic plus placebo.

Although there is no published supportive data, staphage lysate may also be helpful as adjunctive therapy in atopic dogs that continue to develop recurrent pyoderma despite appropriate management of their atopic dermatitis.

ImmunoRegulin
ImmunoRegulin (neogen.com) is an immunostimulant derived from killed Propionibacterium acnes and administered IV. In one study, dogs with chronic recurrent pyoderma were treated with antibiotics plus IV injections of either P. acnes or placebo. Eighty percent (12/15) of the dogs treated with antibiotics and P. acnes responded with significant improvement or complete remission of lesions at the end of the 12-week treatment schedule compared with 38% (5/13) of the dogs treated with antibiotics and placebo.
Other Immunostimulants

A more recent, blinded study of an autogenous *S. intermedius* (pseud-*intermedius*) bacterin (prepared by culturing the individual dog’s pyoderma lesions) compared the bacterin versus placebo in 10 dogs with idiopathic recurrent pyoderma; all were initially treated with a 4-week course of oral antibiotics. After 5 weeks, clinical scores were not significantly different between groups; however, at week 10, the placebo treated group had statistically higher lesion scores compared to the treatment group. Unfortunately, this product is not commercially available.

Finally, genome sequencing technology and proteomic approaches to identify surface-exposed staphylococcal bacterial proteins may lead to development of vaccines to induce protective immunity; the entire genome sequence of *S. pseudintermedius* has recently been determined, and this may lead to new and effective approaches for the prevention and treatment of canine pyoderma.11-13

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**FLUOROQUINOLONES: USE WITH CAUTION**

Use of fluoroquinolones should be carefully assessed in view of associations found between:

- Fluoroquinolone use in hospitals and methicillin resistance in *S. aureus*
- Fluoroquinolone use in communities and fluoroquinolone resistance in *Escherichia coli* in hospitals.

Additionally, studies have found that, although fluoroquinolones may not act as primary mutators for induction of methicillin-resistant *S. aureus* (MRSA) resistance, when they are used in cases of heteroresistant MRSA, they can select for high-level meticillin resistant mutants (which are not only resistant to fluoroquinolones but also to most other antibiotics).12-13

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**NADA #141-177. Approved by FDA.**

**MOMETAMAX® (MENETAMICIN SULFATE, USP; MOMETAMICIN FURUATE MONOHYDRATE; AND CLOTRIMAZOLE, USP, OTIC SUSPENSION)**

**VETERINARY**

**For Otic Use in Dogs Only**

**BRIEF SUMMARY** (For full Prescribing Information, see package insert.)

**CAUTION**: Federal law restricts this drug to use by or on the order of a licensed veterinarian.

**INDICATIONS**: MOMETAMAX Otic Suspension is indicated for the treatment of otitis externa in dogs caused by susceptible strains of yeast (*Malassezia pachydermatis*) and bacteria (*Pseudomonas spp.*, including *P. aeruginosa*, *Acinetobacter calcoaceticus*, *Staphylococcus epidermidis*, and *Staphylococcus aureus*).11

**CONTRAINDICATIONS**: Inability of any of the components to cross-react. Treatment should be discontinued and appropriate therapy instituted.

**WARNINGS**: The use of this component has been associated with deafness or partial hearing loss in a small number of susceptible dogs (e.g., geriatric). Hearing loss is usually temporary, and it is recommended that this condition be noted, if possible. If hearing or vestibular dysfunction is noted during the course of treatment, discontinuation of use of MOMETAMAX Otic Suspension immediately and the ear canal thoroughly with a normal saline solution is recommended.

Corticosteroids administered to dogs, rabbits, and rodents during pregnancy have resulted in dwarfism or sterility or both. Other congenital anomalies including deformed teeth, placentas, and amnions have been reported in offspring of dogs that received corticosteroids during pregnancy. False and experimental data have demonstrated that corticosteroids administered orally or parenterally to animals may induce the first stage of parturition if used during the last trimester of pregnancy and may precipitate premature parturition followed by stillbirth, fetal death, retarded development, and death.

**PRECAUTIONS**: Before initiating any medication into the ear, examine the external ear canal thoroughly to be certain that tympanic membranes are not ruptured in order to avoid the possibility of transmitting infection to the middle ear or as damaging the cartilage or vestibular apparatus from prolonged contact.

Administration of recombinant doses of MOMETAMAX Otic Suspension beyond 7 days may result in delayed wound healing. If overgrowth of non-susceptible bacteria or fungi occurs, treatment should be discontinued and appropriate therapy instituted.

Avoid injection: Adverse systemic reactions have been observed following the oral ingestion of some topical corticosteroid preparations. Patients should be closely observed for the usual signs of adrenal cortical overactivity which include sodium retention, ketonuria, hypoglycemia, weight gain, polydipsia, and/or polyuria. Protracted use or overdosage may produce adverse immunosuppressive effects.

If use of corticosteroids, including on dose, duration, and specific steroid, may result in endogenous steroid production inhibition following drug withdrawal, in patients presenting receiving or recently withdrawn from corticosteroid treatments, therapy with a rapidly acting corticosteroid should be considered in especially stressful situations.

**ADVERSE REACTIONS**: Gentamicin: While aminoglycosides are absorbed poorly from skin, infection may occur when aminoglycosides are applied topically for prolonged periods of time to large wounds, burns, or any denuded skin, particularly if there is renal insufficiency. All aminoglycosides have the potential to produce reversible and irreversible vestibular, cochlear, and renal toxicity.

Mometasone: ALP (SAP) and AL2 (SOPT) enzyme elevations, weight loss, anorexia, polydipsia, polyuria, neutropenia, and lymphopenia have occurred following the use of pumetin, high-dose, and/or prolonged or systemic corticosteroids in dogs. Cushing's syndrome in dogs has been reported in association with prolonged or repeated steroid therapy.

Clotrimazole: The following have been reported occasionally in humans: headache in connection with the use of antifungal substances, including itching, pruritus, urticaria, and general malaise at the skin not present before therapy.

MOMETAMAX Otic Suspension: In field studies following once-daily treatment with MOMETAMAX Otic Suspension, alopecia, pruritus, dermatitis, and increased water consumption were observed in less than 1% of 444 dogs. In a field study following twice-daily treatment with MOMETAMAX Otic Suspension, inflation of the pinna and diarrhea were observed in less than 1% of 141 dogs.

U.S. Patent No. 6,127,351.

Scherings/Plough Animal Health Corp., Summit, NJ 07901

Made in Canada.

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Rev. 1/05

27079515-JB

01/10

**NADA #141-266. Approved by FDA.**

**POSATEX® OTIC SUSPENSION (ORIFIBLOXACIN, MOMETASONE FURUATE MONOHYDRATE AND POSACONAZOLE, SUSPENSION) ANTIBACTERIAL, ANTI-INFLAMMATORY, ANTI FUNGAL**

**For Otic Use in Dogs Only**

**BRIEF SUMMARY** (For full Prescribing Information, see package insert.)

**CAUTION**: Federal law prohibits the extralabel use of this drug in food-producing animals.

**INDICATIONS**: POSATEX Otic Suspension is indicated for the treatment of otitis externa in dogs associated with susceptible strains of yeast (*Malassezia pachydermatis*) and bacteria (coagulase positive staphylococci, *Pseudomonas aeruginosa*, and *Enterococcus faecalis*).

**CONTRAINDICATIONS**: POSATEX Otic Suspension is contraindicated in dogs with known or suspected hypersensitivity to quinolones, mometasone furoate monohydrate, or posaconazole. Do not use in dogs with known tympanic perforation (see PRECAUTIONS).

**PRECAUTIONS**: The use of POSATEX Otic Suspension in dogs with perforated tympanic membranes has not been evaluated. The integrity of the tympanic membranes should be confirmed before administering this product.

Avoid prolonged or repeated use of POSATEX Otic Suspension. Long-term use of topical otic corticosteroids has been associated with adrenocortical suppression and iatrogenic hyperadrenocorticism in dogs (see ANIMAL WARNINGS).


Animal Warnings: Do not administer orally. Immediately discontinue use of POSATEX Otic Suspension if hearing loss is observed during treatment (see ADVERSE REACTIONS).

**ADVERSE REACTIONS**: In the field study, 143 dogs were treated with POSATEX Otic Suspension. Of those, 1 dog with bilateral otitis externa developed transient hearing loss.

**HOW SUPPLIED**: POSATEX Otic Suspension is available in 7.5 g, 15 g, and 30 g plastic bottles.

Made in Germany.

**Intersect/Schering-Plough Animal Health. © 2009 Intersect Inc., Roseland, N.J. 07068. All rights reserved. 01/10**
The final article in this series will focus specifically on methicillin-resistant canine pyoderma.

HPA = hypothalamic–pituitary–adrenal; MIC = minimum inhibitory concentration

Correction
In this series’ first article, Disease Overview & Diagnosis, a reference was missing from the text. Visit todaysveterinarypractice.com to view the corrected article and references.

References