

# BETTY THE BLOTCHED BLUE TONGUE

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## CLINICAL SIGNS

- Betty is an adult female blotched blue tongue skink *Tiliqua nigrolutea*.
- Betty's clinical signs are as follows:
  - Swelling right caudal mandibular region.
  - Less responsive than normal.

## FIRST CONSULTATION

- Fine needle aspirate (FNA) of swelling – using a 20g needle and 3ml syringe.
- Examine mouth and right ear – no other visible or palpable swellings.
- Presumptive diagnosis – abscess.

### FACT 1:

**Reptilian pus is usually pasty in consistency. For this reason FNAs are often difficult to perform.**



### DAY 0

- FNA reveals thick pasty pus – few cells, scant bacteria.
- Anaesthetise Betty using alfaxalone 10mg/kg IV (ventral tail vein), intubate and maintain on isoflurane and oxygen, providing intermittent positive pressure ventilation (IPPV).
- Lance abscess, curette and excise capsule, swab for culture and sensitivity (Fig 1), flush cavity with Baytril® 0.5% (1 ml Baytril® injection 5%: 9 mls saline) (Fig 2).
- Place drain (Fig 3).
- Commence Baytril® 10mg/kg SC q48hrs.
- Flush wound daily with Baytril® 0.5%.

### FACT 2:

**In reptiles it is recommended to excise the abscess capsule and contents in order to reduce the chance of recurrence.**

### DAY 7

- Culture: Heavy growth of *Serratia marcescens*, sensitive to enrofloxacin.
- Continue Baytril® SC q48hrs for 2 more weeks.
- Continue to flush wound.

### FACT 3:

**Recommended dose for Baytril® is 5-10mg/kg SC q48hrs.**

### DAY 14

- Remove drain and cease flushing wound.
- Leave sutures intact.

### FACT 4:

**Reptile skin heals more slowly compared with mammal skin. Standard time for suture removal in reptiles is 4-6 weeks.**

### DAY 28

- The swelling is markedly reduced.
- Sutures removed.
- Betty's appetite is back to normal – snails, vegetables and fruit.

### FACTS:

**Allow reptiles to maintain their preferred body temperature (PBT) for effective antibiotic therapy – for Betty 32-33°C.**

Fig 1: Swab for culture and sensitivity



Fig 2: Flushing wound

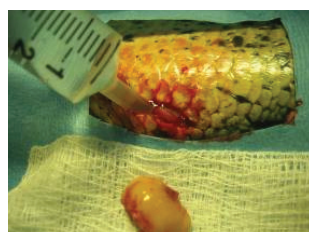


Fig 3: Drain placed



**Baytril®**  
My answer to infections.

## NOTES ON ANTIMICROBIAL THERAPY: BETTY THE BLUE TONGUE



### SELECTION OF THE ANTIMICROBIAL:

Enrofloxacin (Baytril) is a **concentration dependent antimicrobial** with excellent activity against a variety of bacteria involved in abscessation, especially the predominant Gram –ve types. Literature exists detailing the use of Baytril in exotic species such as reptiles and its selection as first line therapy in this case proved timely and effective. This decision was justified based on the subsequent culture and sensitivity results.

### DOSE SELECTION:

A dose rate of 10mg/kg Enrofloxacin systemically every 48 hours has been selected for this case based on the identification of an enrofloxacin sensitive strain of *Serratia marcescens*. *Serratia spp.* are part of the normal flora of the oral cavity in reptiles. These organisms are commonly isolated from cutaneous lesions and appear to be introduced by traumatic events, such as bite wounds. Cutaneous infection with *Serratia spp.* typically causes caseated abscesses that require surgical curettage and antibiotic therapy for resolution.

The elevated dose rate (10mg/kg) ensures the **peak level achieved** is well above the MIC required for efficacy and the decreased frequency (q48hrs) accounts for the slower metabolism of antimicrobials seen in reptiles.

### ADDITIONAL TOPICAL THERAPY:

When a reptile develops an abscess, the pus inside is not the same as that seen in a mammal. In reptiles the pus is coated. Because of this, antibiotics do not penetrate the abscess well, making it difficult to achieve maximum effectiveness, even with the best antibiotics. Even after the abscess is opened and cleaned, systemic antibiotics might still have difficulty reaching the site. In this case, topical flushing with a 0.5% prepared formulation of Baytril, in addition to systemic administration, was considered an essential component of therapy.

### DURATION OF THERAPY:

The use of Baytril for extended treatment periods (3 weeks in this case) appears to be well tolerated in reptiles.

### BAYTRIL:

- Has excellent tissue penetration, reaching therapeutic levels quickly following subcutaneous injection in reptiles
- Is highly lipophilic, allowing it to pass through fibrous tissue, pus and inflammatory debris to reach the site of infection
- Accumulates (in mammals) in white blood cells which means:
  - It's directly and selectively carried to the infection site
  - Tissue penetration is enhanced

### Baytril 0.5% Topical Solution:

The "recipe" of 1ml Baytril Injectable (5%) in 9mls of saline has been widely used and is an effective topical formulation. By diluting Baytril Injectable, the potential for tissue irritation due to the high pH of the solution is removed.

