5 Of The Top 10 Reptile Diseases To Know For NAVLE® Success:

1. **Metabolic bone disease (MBD)**
   - **Classic case:**
     - "Bent iguana" (pathologic fractures) OR
     - Progressive weakness in a young reptile OR
     - Swollen limbs from fibrous osteodystrophy
     - History of a deficient diet (unsupplemented lettuce, ground meat, mealworms, crickets)
   - **Dx:**
     - Physical exam: distorted, rubbery mandible
     - Radiography: poor mineralization, greenstick fractures
     - Low plasma 25-dihydroxycholecalciferol
     - Later see hyperphosphatemia and hypocalcemia
   - **Rx:**
     - CRITICAL: Correct diet and lighting
       - Dietary Ca:P = 1.5-2.1
       - Unfiltered sunlight or full spectrum light (UVB) needed for vitamin D3
     - "Gut-load" whole prey (prey supplemented with calcium or calcium/vit D)
     - Calcitonin: only if normocalcemic
   - **Pearls:**
     - Prognosis is fair to good if caught early, but poor if hypocalcemia and bone loss
     - Renal secondary hyperparathyroidism can occur in older animals with end-stage renal disease
     - Present with inability to move and muscle fasciculations

2. **Salmonellosis**
   - **Classic case:**
     - Reptiles AND amphibians are often carriers, shedding bacteria in feces
     - May see septicemia, osteomyelitis, abscesses
   - **Dx:**
     - Culture (abscess or blood)
     - Biopsies
     - Radiographs: vertebral infection in snakes
     - Necropsy: acute enteritis or necrotizing fibrinous enteritis
   - **Rx:**
     - Debridement
     - Systemic antibiotics if septicemic (may increase emergence of resistant strains)
     - Supportive care
       - Fluids
       - NSAIDs
   - **Pearls:** ZOONOTIC concern
     - Red-eared slider turtles illegal to sell if under 4 inches of shell length (can fit in child's mouth)
     - Practice good hygiene after handling reptiles or amphibians, enclosures, and their food
Children under 5, the elderly, and people with compromised immune systems are at high risk of infection
- Etiology: Usually *S. bongori* or *S. enterica*

3. **Dysecdysis (retained shed)**
   - **Classic case:**
     - Snakes with retained or partially shed skin
     - Lizards: see over feet and toes, can constrict distal toes and tail tip
   - **Dx:**
     - Physical exam
     - Rule out underlying disease
   - **Rx:**
     - Soak animal prior to assisting shed
     - Be careful with retained spectacles, can damage cornea
     - Treat underlying disease
   - **Pearls:**
     - Environment may be too dry or poor nutrition
     - Subspectacular abscesses can occur between cornea and spectacle
     - Exuvium is the shedded whole skin (snakes)
     - Lizards shed in pieces

4. **Gout**
   - **Classic case:**
     - Visceral: obtunded, weak, dehydrated
       - Primary is caused by excess dietary protein
       - Secondary is due to dehydration or renal disease
     - Articular: swellings, white nodular tophi (urate-centered granulomas) around appendicular joints, PAINFUL
     - Rare to have both types in one animal
   - **Dx:**
     - Increased blood uric acid levels
     - Radiographs show mineralized tophi in organs or joints
     - FNA of joints: see needle-shaped crystals
   - **Rx:**
     - Rehydration/abundant access to water, vitamin supplementation, analgesics
     - Primary visceral: decrease dietary protein; try to approximate diet of reptile's natural habitat
     - Secondary visceral: treat underlying disease
     - Medical Rx is challenging, poorly understood & takes cues from human protocols
       - Allopurinol, may decrease uric acid production (debated)
       - Probenecid, to promote urate excretion
       - Colchicine/corticosteroids to manage acute gouty arthritis attacks
   - **Pearls:**
     - Prognosis is poor
     - Pseudogout occurs in turtles, with mineral deposition (not urate) in and around feet

5. **Hemipenal and phallic prolapse**
   - **Classic case:**
     - Prolapsed structure, unable to retract
     - Vulnerable to trauma during mating
   - **Dx:** Physical exam
   - **Rx:**
     - Hypertonic topicals, lubricants, and reduction
     - Surgical amputation: phallus and hemipenes have no urethra
   - **Pearls:**
- Single phallus in crocodilians and chelonians
- Paired hemipenes in lizards and snakes
- Oviduct prolapse can occur in females when straining to pass eggs: SERIOUS

Images courtesy of Haley Luna (Kevin the tortoise), Jean A. Paré, DVM, DVSc, DACZM (MBD, snake spine, retained spectacles, prolapsed hemipenes), and Doruk Salanci (uric acid crystals).