

Triaging Wildlife

Renée Schott, DVM Renee@wrcmn.org Staff Veterinarian Wildlife Rehabilitation Center of Minnesota Roseville, MN





- -Independent non-profit located in St Paul, MN
- One of the largest wildlife rehabilitation centers in the country
- -Admit ~ 9000 animals/year
- -Over 160 species

• WRC

- -2 full-time DVMs and 2 CVTs
- -8 full-time staff members
- ->400 volunteers



Interactive Presentation!

- When I ask a question, you _____ ? ?
- When you ask me a question, I ____









Goals

- Minimize stress
- Balance suffering with probability of release
- Take care of ourselves!







• Read history thoroughly









Triage: Step 2



Triage: Step 3

- · Read history thoroughly
- Thorough physical exam

 Visual exam in box (no handling!)
- Observe outside box in empty room if appropriate

Triage: Step 4

- · Read history thoroughly
- Thorough physical exam

 Visual exam in box (no handling!)
- Observe outside box in empty room if appropriate
- · Hands on physical exam
 - Look for injuries/disease that would render the animal non-releasable and euthanize \rightarrow finish PE after animal is dead





Triage: Final Step!

- Read history thoroughly
- Thorough physical exam

 Visual exam in box (no handling!)
- Observe outside box in empty room
 - Insert video of goose from teaching cases
- Hands on physical exam

 Look for injuries/disease that would render the animal non-releasable and euthanize → finish PE after animal is dead
- Put it back in the box
- Make a decision
 - ...To treat or not to treat, that is the question...

American crow

• Finder found by side of road





Spinal Trauma in Wildlife

- How?
 - Hit windows (avian)
 - Hit by car
 - Dog/cat attack
 - other

Presentation of Spinal Trauma • Lack of history

- Variety of physical exam findings-all <u>bilateral</u>
 (Fossum, 2002)
 - Uncoordinated?
 - Unable to walk normally?Unable to move legs at all?



- Brain - Spinal cord



Center

Differentials

- Spinal trauma
- Bilateral Pelvis fractures
- Head trauma/other brain disease
- Bilateral leg fractures

(VERY basic) Neurology Review

• Central Nervous System (CNS)



- Peripheral Nervous System (PNS)
 - Everything else (nerves that go to your arms, legs, organs, etc)





















Why do we care about reflexes vs voluntary movement?

Because it directly relates to prognosis!!

- (Fossum, 2002, p1198) (Mazzaferro, 2010, p780)
- If the impulse is NOT getting to the brain (if the animal does not consciously feel the stimulus—the toe pinch) the animal will **not** recover to a releasable state.
- If SOME conscious perception that the stimulus is present, there is hope
 - "deep pain" or bone pain is the last sensation to go before complete paralysis

Wingfield 2001 (small animals)



Prognosis

- Deep pain present?
 - Give it a chance (may or may not recover enough for release)
- NO deep pain present?
 Humanely euthanize on admission

Remember--

- "Withdrawl of the limb [when pinching toe] is not a behavioral response" (Fossum, 2002)
 - It's NOT voluntary movement
 - It says nothing in regards to prognosis when working with wildlife being rehabilitated for release!

How to assess if deep pain is present

- Stabilize patient to a responsive state
- Use a long hemostat or tweezers to repeatedly pinch the toes of the hind limbs and watch the patient's expression did he consciously feel that toe pinch?
 - Ignore movement in the limb
 - Move slowly so the patient doesn't see you pinching its toes
 - Go from a light pinch (if they react here, stop) to a very hard pinch (get the hemostats to clamp shut)
- Then pinch an area higher up (that you know the patient has control) of to compare reactions
- REPEAT!















American Crow

• Deep pain assessment



Spinal Trauma Questions?

8

Turtle

- Found by public on side or road
- Cause?
- Now what?





Shell Fracture Prognosis

• Shell fracture turtles with severe coelomic contamination and/or devitalized organs \rightarrow euth



















Juvenile grey squirrel

- Found in backyard
- PE: emaciated, severely dehydrated, hypothermic, severely lethargic



American bittern

- "broken wing"
- Now what?



Joints=😕

- Traumatic joint injuries
 - Intra-articular fractures
 - Luxations/ subluxations (dislocations)



Bird-found outside

Trumpeter swan

- (winter)
- Juvenile trumpeter swan found on lake alone in MN...
- Thoughts?



Trumpeter swan

• PE:

- Moderately weak (see next slide)
- Auscultation WNL
- Diagnostics:
 - Blood lead level of 23 ug/dl (see next slide)
 - Plop radiograph: no lead in GI tract





Swan Lead Toxicosis Prognosis

- Mild: mild paresis, slightly less active than normal, slightly weak, is pretty feisty but prefers to lay down slightly more than a normal swan
- **Moderate**: moderate paresis, less active than normal, moderately weak but can stand/walk when provoked, otherwise lays down
- Severe: severe paresis, lethargic, very weak, can only take a few steps when aggressively provoked or refuses to walk at all

Trumpeter swan

Treatment?

- Chelate the lead
 CaEDTA +/- chemet (DMSA, succimer)
- Supportive care
 Tube feed if not eating
- SQ/IV fluids +KCl, with chelation
- Sporanox prophylactically
 +/-Wrist bumpers (twice weekly
- PT)
- +/- Antibiotics
- +/- NSAIDS
- Supportive medications: vit C, zinc, vit b complex











Loss of vision

- Some rehabilitators will release one-eyed flock prey birds
- Reports of adult owls surviving in the wild with one eye
- Euthanize: solo prey animals; most predators





Log-rolling animals=⊗



Amputations

- Illegal to amputate a migratory bird wing above the elbow
- Some species with missing digits do well in the wild (depends on species and which digits)
- Euthanize limb amputations in any species (except turtles...)





Raccoon

- Found in yard during the day, didn't run away
- PE: good-thin body condition, sl dehydrated, docile until aggravated. No other lesions





Euthanize

- Rabies vector species with abnormal neurologic signs – Raccoon, coyote, fox, bat, skunk (MN)
- Get finders information, including 2 phone numbers → refer finder to Dept Public Health
- Distemper suspect species (raccoon, coyote, fox) with any one of the following signs:
 - Neuro signs (including seizures of any type)
 - WBC count <4,000 wbc/ul

DDX?

- "tame" : could be other injury/illness, age
- Head trauma
- Other (encephalitis, etc)



WRC's (adult/older juvie) Raccoon Protocol Guidelines

- Iso on admit
 - Draw blood for CBC (if < 4000 WBC \rightarrow euthanize)
 - Parvo snap test
 - Do FULL physical exam
 - "plop" radiograph
 - Body weight
 - IF you decide to treat, give all fluids/meds injectable before it wakes up

Neonates/infants

- Neonates/infants comprise 70% of WRC's admits (5500 in 2011)
- Grave prognosis (in WRC's large nursery setting)
 - Eastern cottontails (1793/year) • <50g \rightarrow 1% chance of survival at WRC





Neonates/infants

- Neonates/infants comprise 70% of WRC's admits (5500 in 2011) •
- Grave prognosis (in WRC's large nursery setting)
 - Eastern cottontails (1793/year) <50g → 1% chance of survival at WRC
 - Eastern grey squirrels <43g (904)
 - Red squirrels < 20g

- Mice <5g





- Virginia opossum <20g (others 15g?)
- Hatchling altricial birds (just out of shell) (1700 passerines)
- Pinkies of any species



New Medications

- Buprenorphine SR (zoo pharm)
- Meloxicam SR (zoo pharm)
- Butorphanol SR is being worked on (zoo pharm)
- Osmotic pumps (alzet)



Misalignment or irreparable beak damage → 🛞



Northern Cardinal • Head trauma→ severe periocular swelling

- Guarded prognosis
- Meloxicam 0.5mg/kg TID, flurbiprofen/TAO BID



Poor feather condition

- Nutritional problem?
 - Kept by finder?
 - Individual in nursery?Odd species you don't

see often?

- Genetics ?
- Juvenile found outside (fall, winter)?
 Failure to thrive?
- Traumatic?
 - Before admitted?
 - Your caging?





To pull or not to pull?

Pulling feathers is painful and always risks damage to feather follicle

consider life expectancy of species

- PULL
- Passerines
- Mallards
- DO NOT PULL
- Raptors
- Nighthawks (night jars)
- Crows



House Finch

 (Tylosin water x 21d, ciprofloxacin OU BID; meloxicam)



American goldfinch

 "broken wing"



American goldfinch

• PE:

- no fractures felt in humerus, radius, ulna, distal wing
- Good body condition
- BARF
- Can't fly....











American goldfinch

• Don't forget to monitor patient after placing body wrap!

🍈 n n n n 🛶

Goose





Summary

Euthanize on admission:

- Open, old fractures
- Traumatic joint injuries
- Luxated lens (enucleate for placement?)
- Rabies vector species (raccoon, coyote, fox, bat, skunk) or distemper suspect species (raccoon, coyote, fox) with abnormal neurologic signs
- Infant babies (decide minimum weight limits for you BEFORE babies start!)
- +/- Permanent eye injuries → some vets/rehabbers will release one-eyed adult owls, one-eyed flock birds (never prey, solitary animals)
- Spinal trauma with no deep pain
- Rolling animals

Summary

Don't euthanize on admit:

- conjunctivitis
- knuckling in geese/gosling
- circling/head tilt
- extreme feather damage
- turtles missing limbs (depends on number and what limbs)\
- · Animal missing digits (depends on digits)



Euthanasia Techniques

Turtles

- Anesthetize
- Euthanize
- Prevent reanimation (resurrection)





Euthanasia Techniques

Turtles

- Anesthetize
 - Propofol IV (dorsal or ventral tail vein, subcarapacial sinus, jugular, occipital venous sinus)
- Euthanize
 - Euthasol IV (same places)
- Confirm
 - Pith (via occipital venous sinus)

Occipital venous sinus



Questions?



Renee@wrcmn.org

2530 Dale St N Roseville, MN 55113 651-486-9453