

The problems with oxytocin alone

- ▶ Oxytocin used alone can be ineffective for many species, even if it's administered at the correct point in the reproductive cycle.
- ▶ Oxytocin used alone can result in significant risks for wild turtles because the animal may attempt to nest after a successful induction despite having no eggs in the oviduct.
- ▶ Oxytocin used alone may prevent the next ovulation in multi-clutch turtles and reduce the number of clutches per season.

Pearls

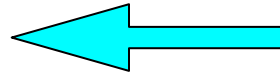
- If the turtle fails to lay eggs within 5 hours after the initial injection do the repeat induction just after night fall 3 days later. Keep the room dark through the night.
- Each species has a different anatomy and pattern of adrenergic and cholinergic innervation so the biochemical patterns vary when egg laying. For these reasons preferred drugs and doses may be different for each species.
- Higher doses are **not** better when it comes to drugs; sustained contractions of the oviduct and other side effects from overdoses can interfere with egg laying.
- Use a grid (see next page).
- Our research is ongoing and we change recommendations as we learn more. Contact us for the latest PDF at nz.feldman@yahoo.com.

Making the grid

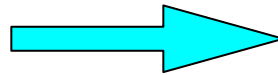


For animals under 4kg.

Note edges of grid folded down and wedged into plastic to protect turtle from newly cut edges.



Grid made of 2"x4" 14 gauge welded utility fence.



For animals up to 10kg.

Note edges of grid folded down and wood slipped into fold.

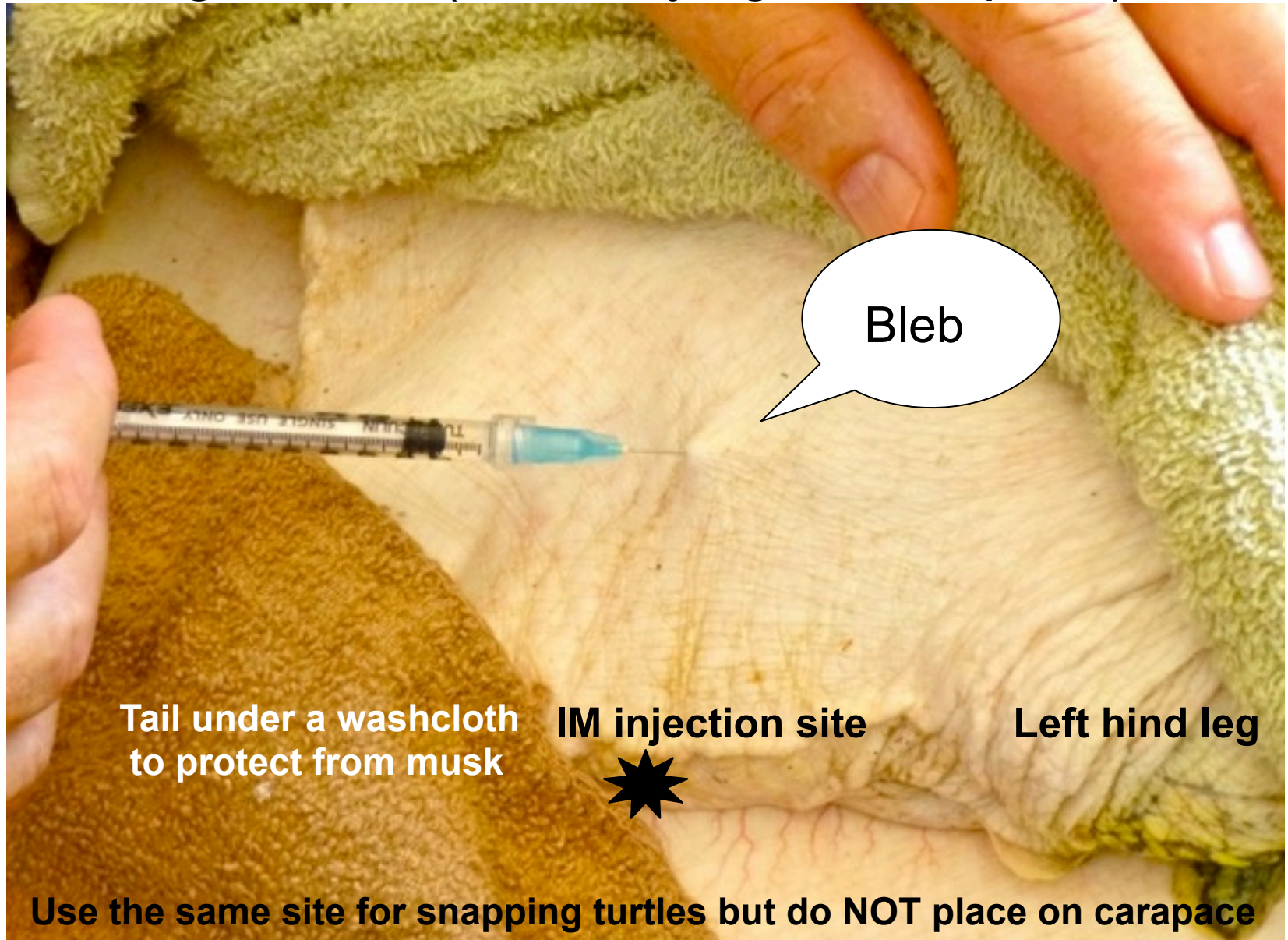


Safest and easiest injection site for turtles under 5 kg



Sunday, 1 August 21

Subcutaneous injection site for softshells and other large turtles (turtle laying on carapace)



Intramuscular injection site for softshells and other large turtles (turtle laying on carapace)



Use the same site for snapping turtles but do **NOT** place on carapace

The bottom line for sliders, map turtles and similar size aquatics

Expected success rate: 94%

Use prostaglandin F2 alpha (Lutalyse): 1.5 mg/kg

- ▶ This is an easily available veterinary drug
- ▶ Lutalyse is the most common brand name for prostaglandin F2 alpha
- ▶ Do not use any other congeners of prostaglandin F2 alpha
- ▶ Use a grid



What does not matter:

- ▶ In or out of water
- ▶ Temperature (72° - 90° F or 22° - 32° C)
- ▶ Size of the turtle
- ▶ Noise
- ▶ Location of subcutaneous injection (base of tail is the easiest and safest)

The bottom line for sliders, map turtles or similar size aquatics that failed their first induction or are stressed by disease or malnutrition

Doses: Sedivet (romifidine): 0.8 mg/kg +Lutalyse (prostaglandin F2 alpha): 1.5 mg/kg

Can substitute xylazine (Anased, Rompun, others) 4.0 mg/kg or dexmedetomidine (dexdomitor): 10.0 mcg/kg for sedivet

- ▶ Inject drugs on opposite sides subcutaneously near the tail
- ▶ Give the Sedivet first
- ▶ Give Lutalyse immediately after the Sedivet
- ▶ Use a grid and cover container
- ▶ Give the injection just after sundown
- ▶ Keep the room dark

What does not matter:

- ▶ In or out of water
- ▶ Temperature (70°- 95° F or 21°-35° C)
- ▶ Size of turtle
- ▶ Noise
- ▶ Location of subcutaneous injection



Bottom line for softshell turtles, snapping turtles and similar sized aquatic turtles

Expected success rate: 75%-90%

Use: **Lutalyse (prostaglandin F2 alpha): 1.2 mg/kg subcutaneously +
Sedivet (romifidine): 0.5 mg/kg intramuscularly**

Can substitute Dexdomitor (dexmedetomidine): 35.0 mcg/kg intramuscularly or
xylazine (Anased, Rompun, others): 8.0 mg/kg intramuscularly for Sedivet

These are all easily available veterinary drugs

- ▶ Give Sedivet, Dexdomitor or xylazine intramuscularly 20 minutes after the Lutalyse
- ▶ Inject the Lutalyse subcutaneously
- ▶ Give the injections just after sundown
- ▶ Keep the room dark
- ▶ Use a grid and cover container securely

What does not matter: →

- ▶ In or out of water
- ▶ Temperature (72° - 90° F or 22° - 32° C)
- ▶ Size of turtle



Other species

There are a wide variety of species that we have not had an opportunity to evaluate using agents other than oxytocin. In the 1980's-1990's we found that some North American species responded well to using oxytocin alone. They were:

Eastern box turtles: (11-22 units/kg) 81% success rate

Spotted turtles: (21-40 units/kg) 82% success rate

A complete report of that earlier work is available at:

Some Options to Induce Oviposition in Turtles, Mark L. Feldman,
Chelonian Conservation and Biology 6(2):313-320. 2007.

We have had many second hand reports that tortoises up to 20 kg respond very well to a single injection of Lutalyse 1.2-1.5 mg/kg.

Contact Mark Feldman at nz.feldman@yahoo.com if you have questions.

Recommended Drugs - August, 2021

- ▶ Lutalyse (prostaglandin F2-alpha): 5mg/ml. Widely available. Stable at room temperature. Moderate price per dose.
- ▶ Dexdomitor (dexmedetomidine): 0.5 mg/ml. Widely available. Stable at room temperature. Very expensive per dose.
- ▶ xylazine (Rompun, Anased): 20 or 100 mg/ml. Widely available. Stable at room temperature. Cheap price per dose .
- ▶ Sedivet (romifidine): 1.0 mg/ml. Widely available. Stable at room temperature. Moderate price per dose.

- ▶ Oxytocin: no longer recommended

Warning

Lutalyse (prostaglandin F2 alpha) can be absorbed through the skin or the eye. It is best to use gloves and eye protection when handling this drug.

Pregnant women can go into labor if they absorb even tiny amounts. Anyone can develop diarrhea and cramps if they absorb significant amounts.

If Lutalyse is splashed into your eye or onto your skin wash it off immediately and blot dry. Do not rub the site!