POST-SURGICAL MONITORING AND RECORDS

With Meagan Shetler
Surgical Monitoring

- **T** (temperature) **P** (pulse/heart rate) **R** (respirations/respiratory rate)
- Color
- Response to stimuli
- Depth of anesthesia
Post-Surgical Monitoring

- Physiological changes
- Posture
- Temperament
- Eating/drinking
- Vocalizing
- Urinating/defecating
- Edema/excessive bleeding
- Grooming
- Cage mates
- Incision care
- Bedding
Physiological Changes

- Temperature: take temperature about every 10 minutes (species dependent—difficult with rats and mice)
- Respiratory rate: slow respirations can indicate sedation and fast respirations indicate pain/distress
- Heart rate: fast HR can indicate pain/distress
- Skin color: monitor for paleness
Vocalization

- Vocalizing animals after surgery can indicate:
  - Pain
  - Distress
  - Discomfort

- Vocalizing is a good indicator to give pain medication
  - Teeth grinding in pigs, rabbits, sheep, and mice can indicate pain
Temperament

- An animal coming out of anesthesia can be unpredictable
  - Bite
  - Scratch
  - Vocalize

- Temperament is also a good indicator of when to give pain meds
Edema or Bleeding

- Some swelling or discharge from the incision is expected

- When to be concerned/ notify Vet Services:
  - If swelling continues for more than 3 days
  - If discharge continues after 24 hours
Cage Mates

- Do not place a sedated animal back in a cage with an awake animal.

- If multiple animals have same surgery on same day:
  - Monitor closely for over grooming or autophagia.
    - *Autophagia* = eating one’s own flesh (very common in rats with paralysis).
  - Keep an eye on wound clips/suture.
    - Cage mates might remove wound clips/suture or might chew on incision.
Bedding

Several types of bedding:

- Sani-chips -- Pelleted paper bedding
- Envirodry -- Diamond soft bedding
- Paper towels

Rats (especially Sprague Dawley) given buprenorphine tend to ingest Sani-chip (shavings) bedding and can cause breathing issues or gastric obstruction. Use the above bedding in these instances (except Sani-chips) or go without bedding.
Posture

- Posture can indicate:
  - Possible paralysis
  - Pain
  - Infection
Eating/Drinking, Urinating/Defecating

- Stressed out animals can easily become dehydrated and decrease in body weight
- Urine and fecal output indicate an animal is eating and drinking
- Urine and feces also help to determine health problems
  - Blood in urine/stool
  - Concentrated urine
  - Absence of urine/stool
Grooming

- Rough hair coats can indicate animals are not grooming themselves
- Animals with rough hair coats can indicate:
  - Pain
  - Distress
  - Discomfort
Incision Care

- Monitor discharge/swelling
- Clean with saline when needed
- Suture vs. Wound Clips
  - Watch for suture reactions
  - Remove 7-14 days after surgery
Surgical Records

- Accurate record keeping is important
- Helps others to know what is expected and what is abnormal
- Gives emergency contact info

Use:
- Pink Surgery Cards (supplied by DLAR)- very handy for quick reference when vet services needs to contact lab
- Surgical notebooks
Intra-Operative

- Include:
  - Medication given
  - TPR (Temperature, Pulse, and Respiration)
  - Overall how surgery went
    - Excessive bleeding
    - Long anesthesia period
    - Miscalculation of pre-medication dose
    - Etc.
Post-Operative

- Minimum information required by IACUC
  - Name of surgeon
  - Date and time of procedure
  - Procedure description
  - Anesthesia used
  - Post operative medications and observations
Post-Operative (continued)

- Also Helpful:
  - Emergency contact person and phone number
  - Date and time animal was last checked by lab
  - Projected prognosis (example: animal will have paralysis)
  - Special needs (example: animal will have difficulty reaching wire bar-place food on cage floor and give long tipped water bottle)
  - Place on body where medication was injected
Who To Contact for Assistance

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Please be aware that this web-based training course is NOT a replacement for the hands-on workshop.

If you have any questions concerning scheduling your hands-on workshop please refer to our webpage at the following link: http://www.research.uky.edu/dlar/Training.htm

There you will find a listing of all of our current workshops and seminars that are available to you at no charge.

This course is not yet approved for IACUC continuing education credits. At this time, CEU’s only apply to hands-on training.