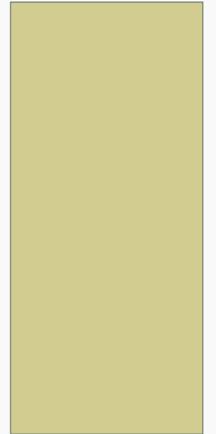




EVIDENCE, PHOTOS & REPORTS

JODIE GERDIN DVM DACVP AUSTRALIA 2018



OVERVIEW

- **Evidence**
 - Chain of custody & Collection
- **Photos**
 - Taking images suitable for the court
- **Reports**
 - General notes
 - Cause, Manner, & Mechanism of Death



EVIDENCE HANDLING

Identification, Collection, and Preservation of Veterinary Forensic Evidence: On Scene and During the Postmortem Examination

R. Touroo^{1,2} and A. Fitch^{1,3}

Abstract

Although it is the obligation of the veterinary forensic pathologist to be competent in identifying, collecting, and preserving evidence from the body, it is also necessary for them to understand the relevance of conditions on the crime scene. The body is just one piece of the puzzle that needs to be considered when determining the cause of death. The information required for a complete postmortem analysis should also include details of the animal's environment and items of evidence present on the crime scene. These factors will assist the veterinary forensic pathologist in the interpretation of necropsy findings. Therefore, the veterinary forensic pathologist needs to have a basic understanding of how the crime scene is processed, as well as the role of the forensic veterinarian on scene. In addition, the veterinary forensic pathologist must remain unbiased, necessitating an understanding of evidence maintenance and authentication.

Veterinary Pathology
2016, Vol. 53(5) 880-887
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DOI: 10.1177/0300985816641175
vet.sagepub.com



EVIDENCE

- **Evidence** = Anything that can prove or disprove a fact in contention
- **Anything taken from the scene = Evidence**
- Evidence must be accounted for at all times to ensure it hasn't been altered
 - Evidence receipt / Chain of custody form

EVIDENCE
CASE # 1000 DEPT. 1000

ITEM # 4

Description: Male Canine - white in color
Pit Bull type breed

Removed From: Jet Waste Dumpster
Person and/or Location

Address: Ross Auto Electric Plot
Rte 17K

By: J.W. Smith - 10/1/09
Signature Required

How Secured: _____ Date: 10/1/09 Time: 0850

Where: _____

Chain of Possession on Reverse Side

EVIDENCE RECEIPT / CHAIN OF CUSTODY (COC)

- The body's COC **starts at the scene**, *by the seizing agency*
- COC for Samples taken from the body **start at NX**, *by the pathologist*
 - Tissues for histology, toxicology, bullets, DNA swabs, etc.



EVIDENCE COLLECTION

- When collecting evidence note:
 - What it is
 - Where it came from
- All evidence gets a **unique ID & COC form**
- **Evidence Packaging:**
A How-To Guide (online PDF)
California Dept of Justice
Bureau of Forensic Services



EVIDENCE COLLECTION

- Collecting evidence at NX is a key task
 - Biologics: blood, fluid, tissue, DNA swabs, etc.
 - Projectiles, Insects, etc.
- Keep bodies in original plastic bag until NX
 - Prevents accidental loss of evidence
 - Keeps things tidy
- Place body on clean, dry surface for NX



EVIDENCE COLLECTION

- **All evidence is measured, described, & photo'd** -- *just like lesions*
 - Photos *in situ* before being altered in any way
 - Ex: “The projectile is 1 gram **yellow metal**, mushroom shape, 0.5 x 0.5 x 0.7 cm.”



EVIDENCE: RECEIPT OF BODY



EVIDENCE: RECEIPT OF BODY

- **ALWAYS** check (& document) that you have the correct body
- Document & Photo all accompanying paperwork

TRANSFER TICKET # 107174

Care Shelter 410-394-4693

PET POINT #

INTAKE INFORMATION

Date: 12-1-15 Received by: [Signature] Entry cage #: [Blank]

Time: 10:31 AM Truck #: 2581

DESCRIPTION

Name: Blackie

Breed: Pit Bull Terrier

Color: Gray & Brindle

Age: [Blank]

Rabies Tag # [Blank]

Lic # [Blank]

Microchip [Blank]

Tattoo [Blank]

Collar Color: Green/Black

BITE INFORMATION

Date of bite: [Blank]

Human Animal on animal Bite

Part of body: [Blank] Scratch

VICTIM'S INFORMATION

First name: [Blank] Last name: [Blank]

Street: [Blank] City: [Blank]

State: [Blank] Zip: [Blank] Phone: [Blank]

DISPOSITION Date: [Blank]

Redeemed Rescued Adopted DOA

TR TM UU OR H

First name: [Blank] Last name: [Blank]

Street: [Blank] City: [Blank]

State: [Blank] Zip: [Blank] Phone: [Blank]

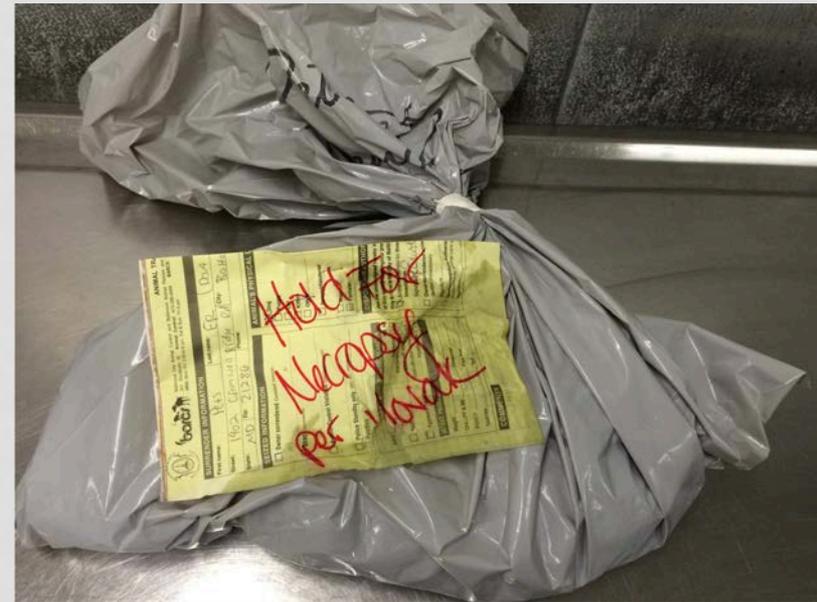
Euthanized Weight & cc: [Blank]

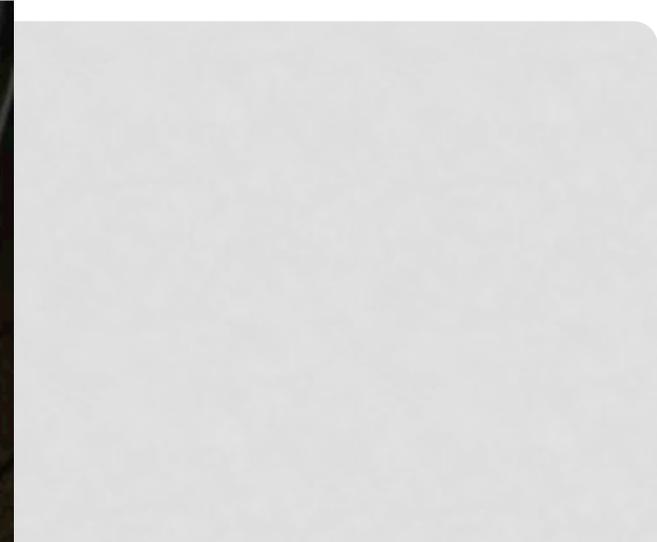
Rabies test

EVIDENCE: RECEIPT OF BODY

- **Packaging**

- Type of container(s)
- Seals- open or intact
- Bags, towels, wraps
- Ice pack(s)
 - **Number**
 - Condition (frozen, partially or fully thawed)





Blood on exterior & interior

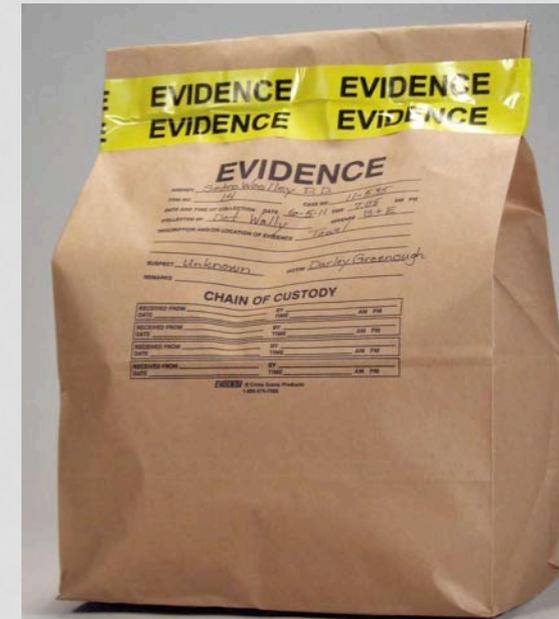
- Document
- Estimate Volume
- Collect (Swab)
- Wear gloves! (Whose blood is it?)

EVIDENCE COLLECTION

- **Storage**

- Non-biologic evidence (ex: collars, bullets) in paper bag /envelope- **NOT** plastic
 - Plastic retains H₂O → degrades / destroys evidence
 - Sealed with (friable) evidence tape
- Locked cabinet with limited & secure access
- Some evidence has special requirements
 - Covered later...

- **Shipping:** As usual, accompanied by COC





Store all evidence until case is adjudicated
(or evidence is consumed in analysis).

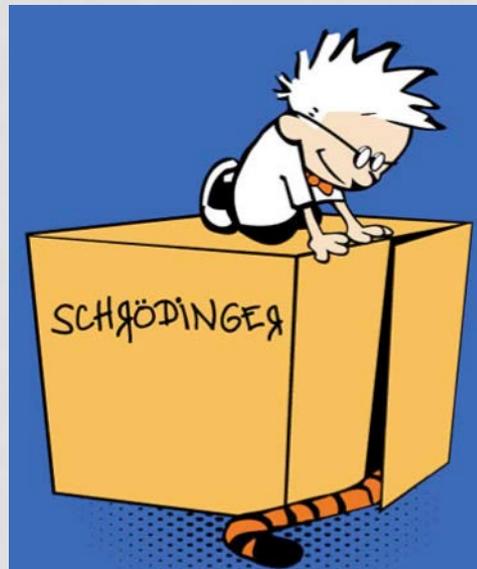
FINAL DISPOSITION

- ***Get written permission from owner of the body on the method & timing of disposal prior to NX***
 - Record method & date of disposal
- **NOT all evidence can be kept until case ends**
 - Many analyses are inherently destructive
 - NX, toxicology, others
 - Biologics degrade



“2ND NECROPSY”

- Few vets/ pathologists will perform 2nd NX because tissues are out of situ, incised, & even more decomposed
- “2nd NX” = 2nd opinion based on
 - Review of original NX report, photos, histo, lab results etc.
- Exception: When the 1st NX is incomplete, recent, & body has been stored appropriately



“2ND NECROPSY”

If a 2nd NX is requested on your case...

- Inform your director of the request
- Document & keep all correspondence
- Charge for slide retrieval, S&H
- Confirm in writing that ALL evidence (slides/blocks/photos etc.) will be returned by date **XX/YY/ZZZZ**





PHOTO-IMAGING

1 PICTURE = 1000 WORDS

The American Journal of Forensic Medicine and Pathology
Volume 2 Number 4
December 1981

Alan R. Moritz, M.D.

Classical mistakes in forensic pathology*

MISTAKES IN FORENSIC PATH

Not taking enough photos

- Preserve the Nx in photos
 - For the court- Evidence
 - For yourself- reminders for report & pre-court
 - 2nd opinions
- The Nx is ephemeral
Memory fades
Data is cheap
- No camera? No NX!



FORENSIC NX PHOTOS

- *Your competency will be judged by your photographs*
 - People judge what they can see
 - Professionals take professional images
- **No** need for a fancy camera;
Use what you know
 - **Smart phone cameras excellent; what you see is what you get!**

FORENSIC NX PHOTOS

- **No people's faces**
 - Protect the privacy of your co-workers
- **No tools**
 - Sharp things scare people (jury)
- **Minimize blood & gore**
 - Photos could be thrown out of court
- **Plain, clean background**
- **Lesion at center, perpendicular to lens**



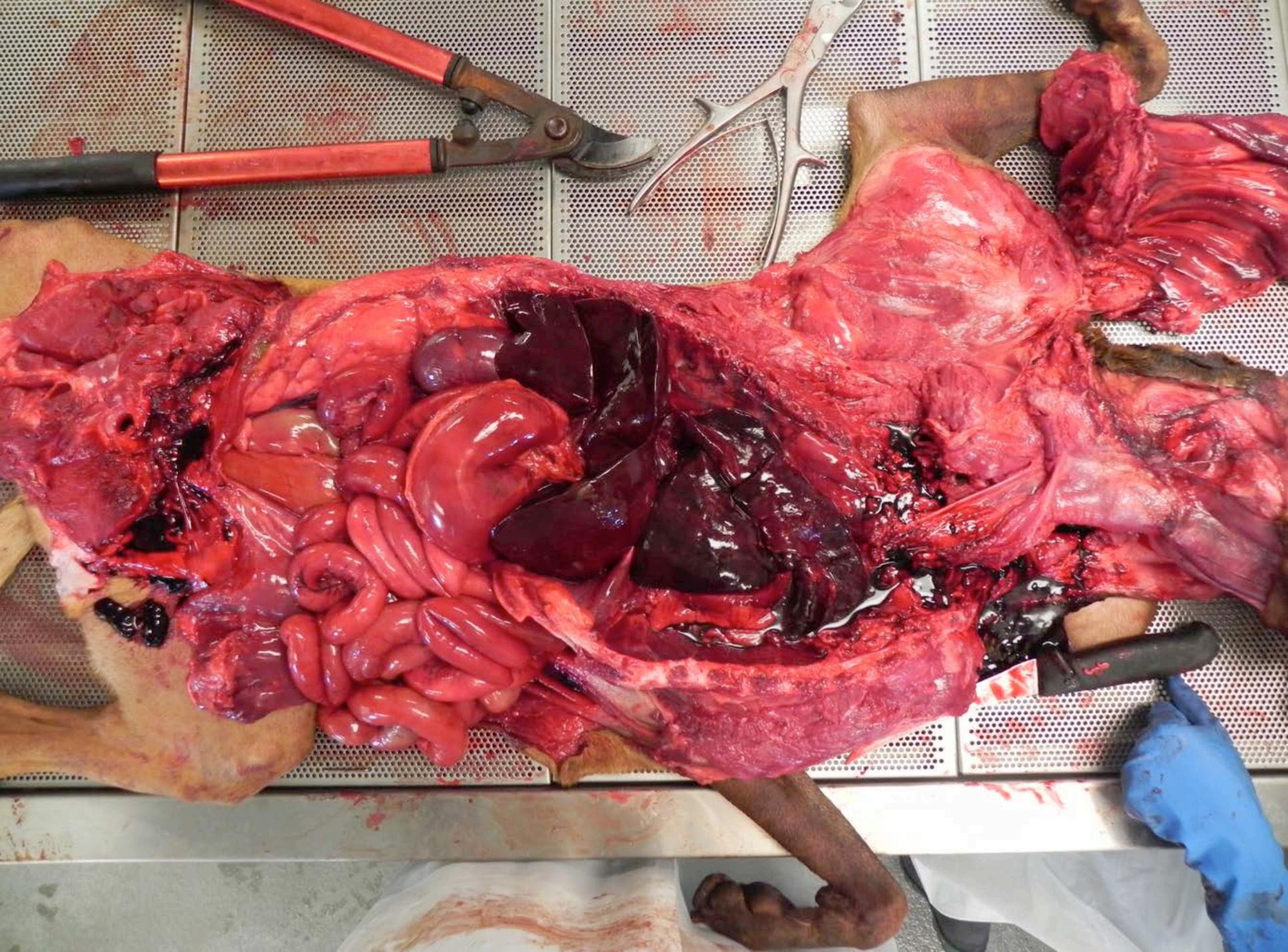
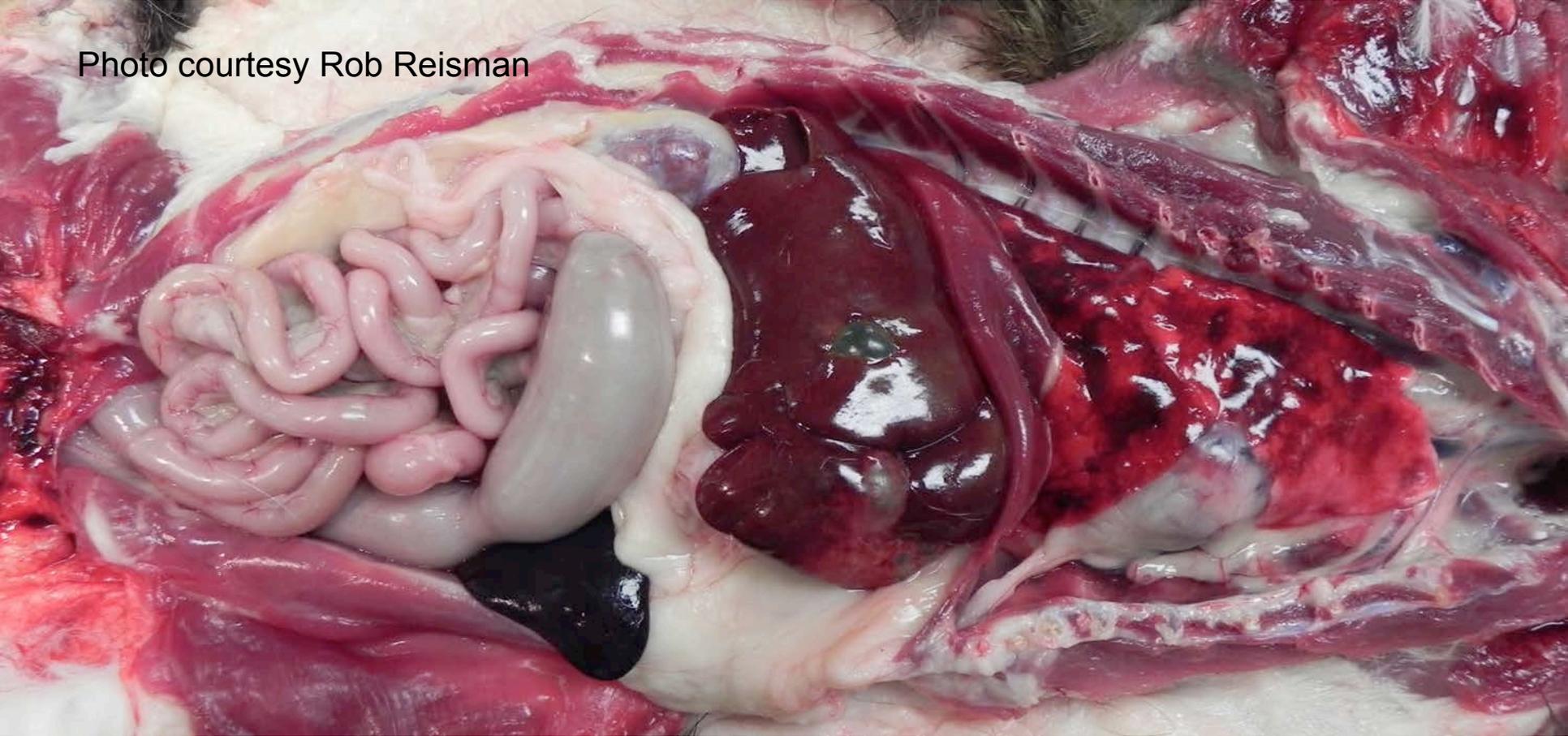
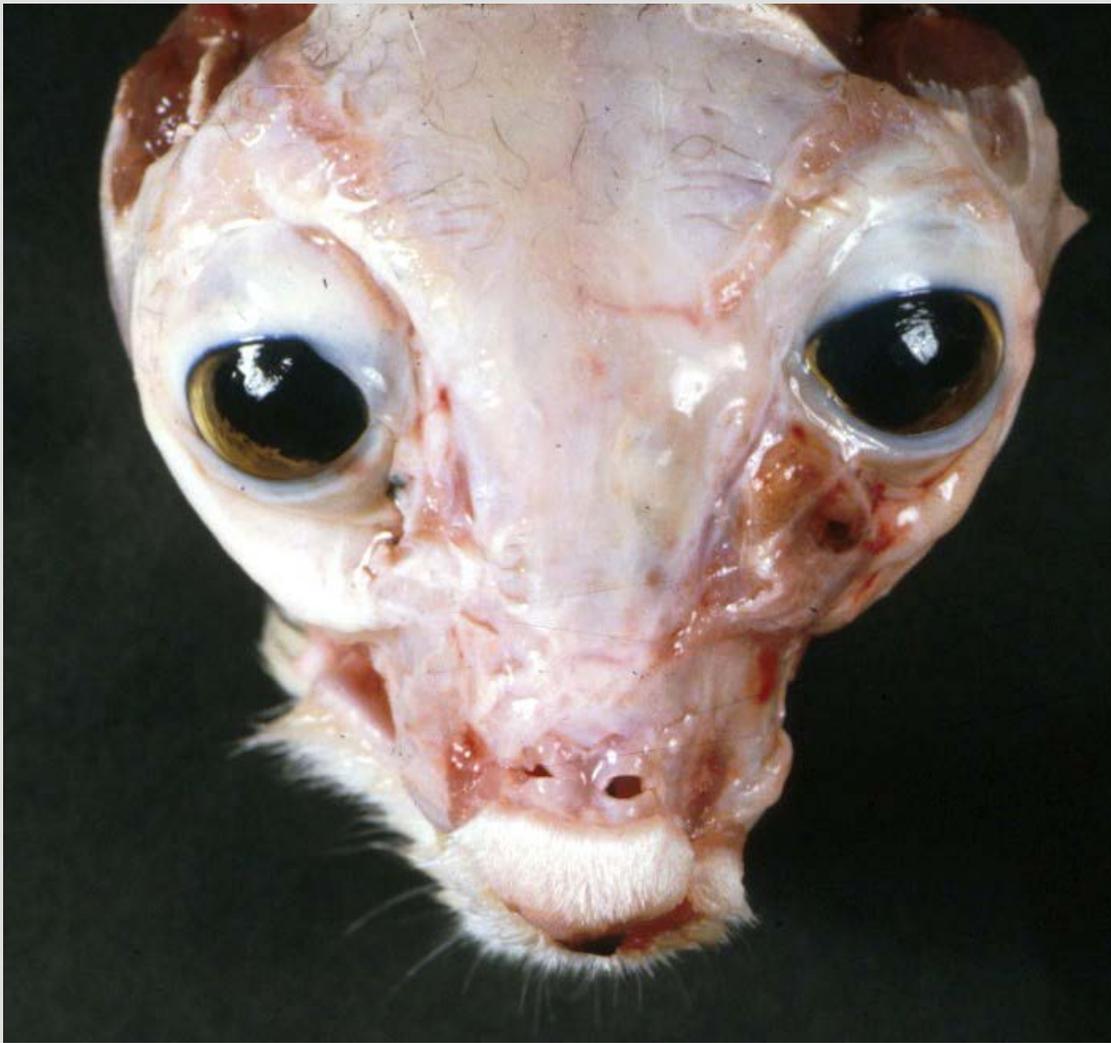


Photo courtesy Rob Reisman





The **eyes & faces** of the deceased & lesions in these areas, even in the living, are often particularly disturbing.



- Cropping an image makes the lesion more apparent, and takes away much of the “ick” factor.
- ***As long as an original is maintained***, duplicates of photos may be altered for use in court, ***as long as nothing is added or removed***
 - **OK**: Cropping, labels, arrows, optimizing contrast/ color balance/ brightness/ etc.
 - **NOT OK**: Photoshop in a bullet into the picture

FORENSIC NX PHOTOS

- **Ruler, Unique case ID#, & Date**
 - In (nearly) every photo
 - Small lesions– pic with & without ruler
- **Start & end images**
 - “START date, case, location, photographer”
 - “END”



FORENSIC NX PHOTOS

- **Continuous numbered series**
 - **Never** delete an image!
 - Continuous = no tampering
- **Download onto secure computer**
- **Photo log**
 - Image #
 - Description



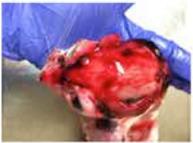
Dr. Soandso, D.V.M.
 Veterinary Forensic Services
 410-555-2938

NECROPSY PHOTO LOG

Case/ Animal #: A123264	Agency: <u>Blerg</u> County Animal Shelter
Location: 2200 7 th Ave., NY, NY 95076	Date: 12-28-2015
Photographer: Wanda <u>Soandso</u> D.V.M.	

Date/Time	Photo #	Description	Direction	Comments
12-27/ 4:55 PM	19	Before necropsy, right side, lateral-dorsal view of head, midrange shot.	Lateral, Dorsal	Blood on face
12-27/ 4:55 PM	20	Before necropsy, right side of head, close up shot, rostral, lateral view	Rostral, Lateral	Bullet 1 entrance wound below right eye
12-27/ 4:56 PM	21	Before necropsy, midrange shot, caudal dorsal lateral area of head showing entrance wound bullet 2	Caudal, Lateral, Dorsal	Bullet 2 entrance wound near right ear base on right temple
12-27/ 4:57 PM	22	Before necropsy, midrange shot, left side of base of neck and left lateral shoulder	Lateral	1 st instar maggots visible in fur near exit wound of bullet 1
12-28/ 2:58 PM	23	Before necropsy, right side down, lateral view, midrange shot, left side of neck, head, shaved, showing exit wounds	Lateral	Exit wounds on bullet 1 at base of neck, Exit wound of bullet 2 below left ear
12-28/ 2:58 PM	24	Before necropsy, right side down, lateral view, close up shot, left side of neck, head, shaved, showing exit wounds	Lateral	Exit wounds on bullet 1 at base of neck, Exit wound

8/29/15
Case: 15-B206
Intake #: 16-0869
START



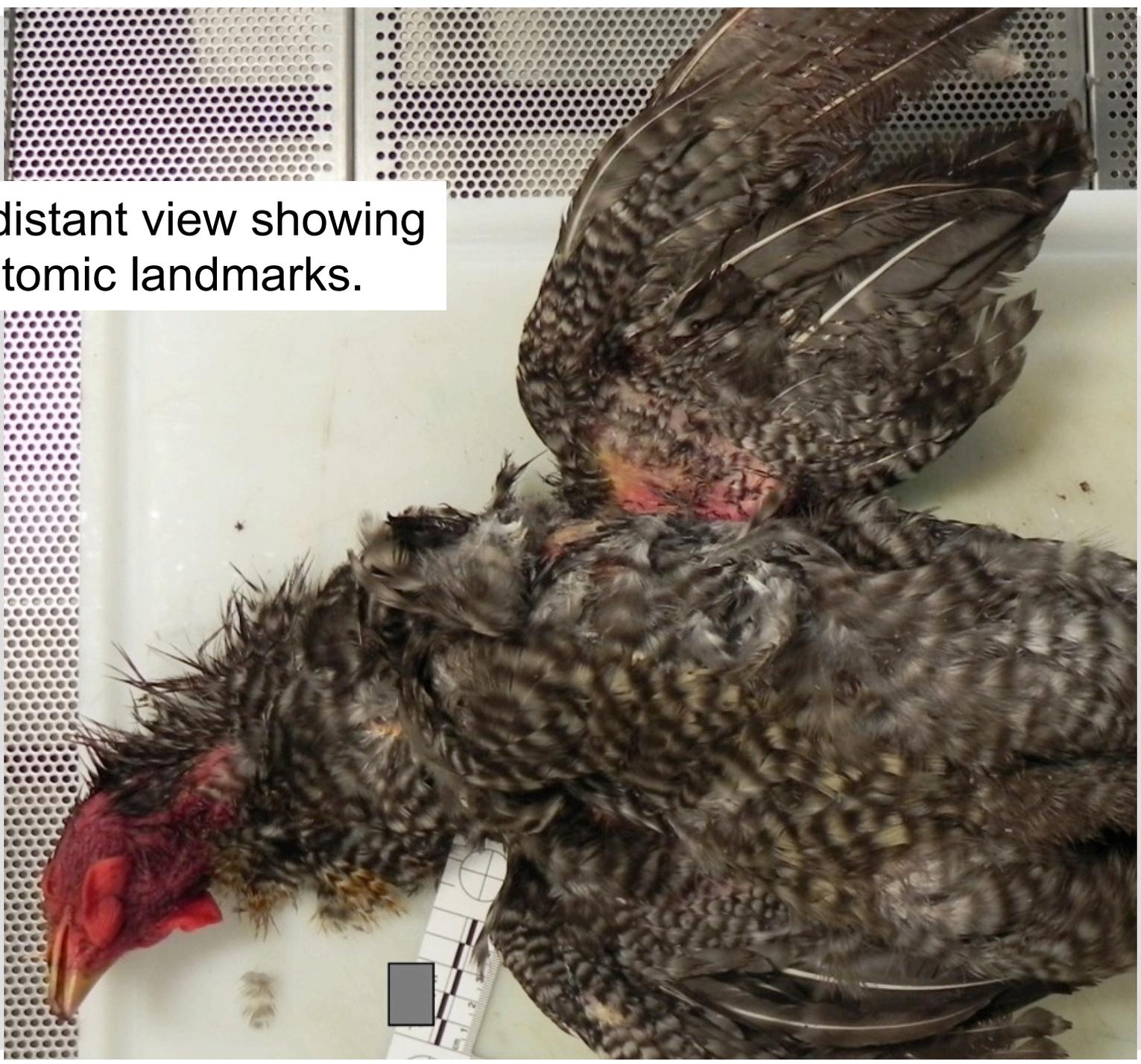
8/29/15
Case: 15-B206
Intake #: 16-0869
START
END

FORENSIC NX PHOTOS

- **Body**
 - **6 views**; Animal = cube
- **Overviews**
 - Opened thorax, abdomen, & skull
 - “Significant normal”
- **2 - 3 pictures / lesion**
 1. Wide angle with landmarks
 2. Mid-range
 3. +/- Close up
 - **Before & after**
 - ***In situ & out-of-situ***



1st distant view showing
anatomic landmarks.





2nd, Mid-range view.



3rd, final close-up view.



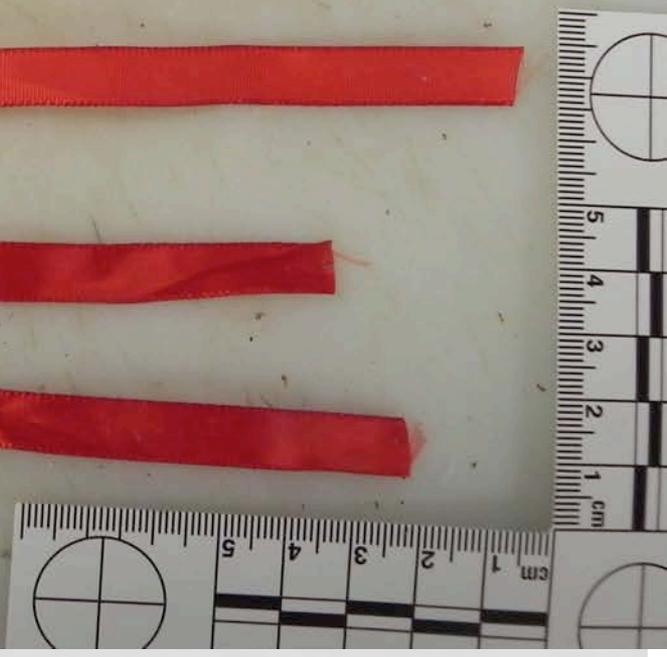




Photo courtesy Dr. Rob Reisman

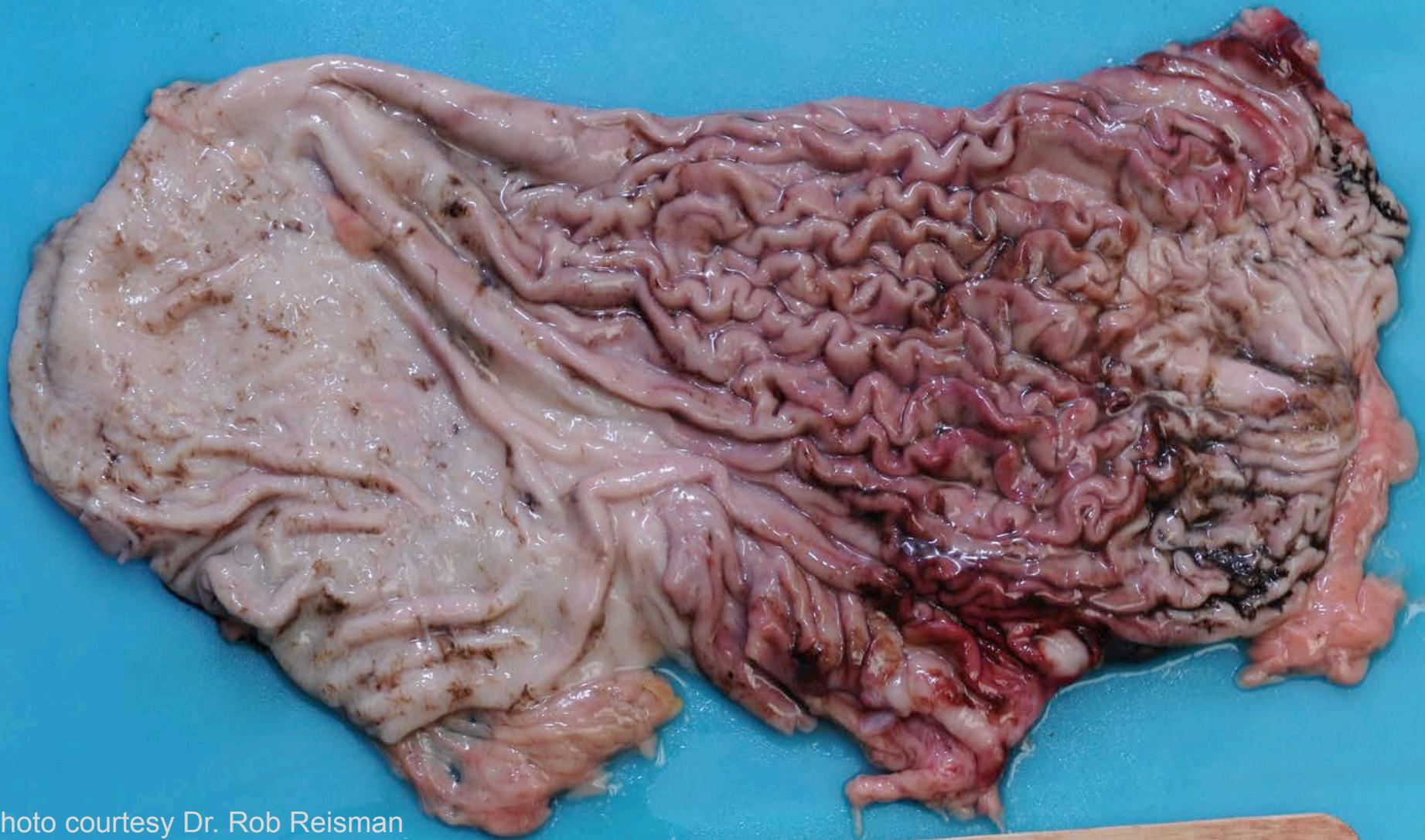


Photo courtesy Dr. Rob Reisman



CM 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

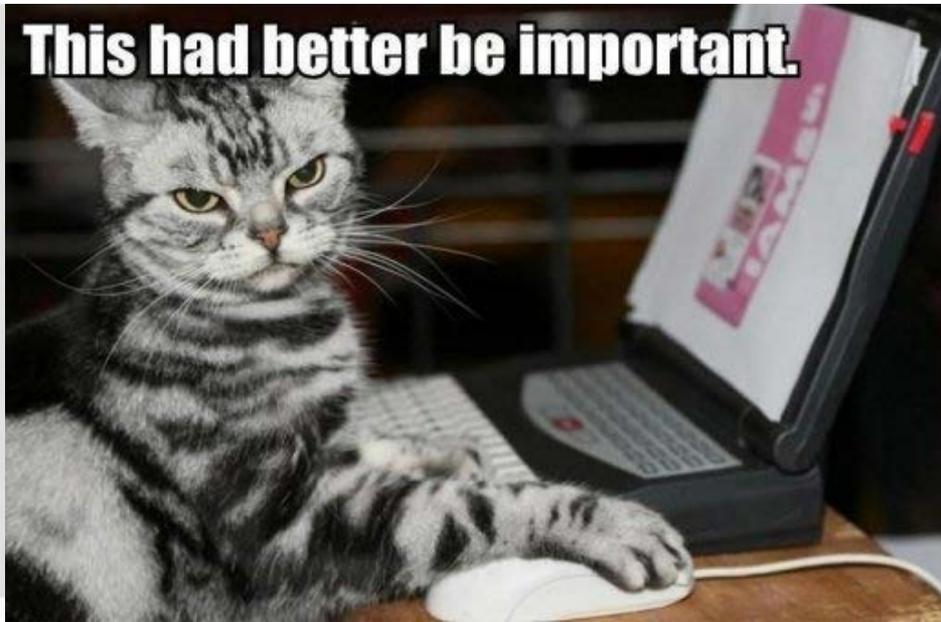
U.S.A.



12/14/12



This had better be important.



REPORTS

CAUSE, MANNER, & MECHANISM OF DEATH

REPORT CONTENTS

- **Who requested**
- **Date, time, & location**
 - Start & end time
 - Note if significant breaks
- **Who attended** & their role
 - Including who took photos
- **Where** the remains were stored
 - Prior to NX
 - After NX (~Disposal)



REPORT CONTENTS

- **Internal & External exam findings**
 - Abnormal, Normal, & Not Examined
- **Morphologic Diagnoses / Findings**
 - *Using forensic terminology*
- **Cause of Death**
- **Comments**
 - *In laymen's terms*
 - What findings mean (interpretation)
 - Anything else the court should know
- **Signature**



REPORT: DISCLAIMER

- “To a reasonable degree of scientific certainty the above is an accurate statement of my findings. **I reserve the right edit, amend, alter, or modify it, based on additional information** provided about this investigation by any individual or agency.”

The American Journal of Forensic Medicine and Pathology
Volume 2 Number 4
December 1981

Alan R. Moritz, M.D.

Classical mistakes in forensic pathology*

MISTAKES IN FORENSIC PATH

Mixing **objective** (descriptive; facts) with **subjective** (interpretation; opinions)



- **#1 way to get “trapped” by your report.**
- If report is interpretation only, your interpretations are either right or wrong; No “wiggle room”
- Separation allows for re-interpretation of objectively described changes, if new info arises



MISTAKES IN FORENSIC PATH

Typos & clerical errors

- Little **mitsakes** erode credibility
 - Lawyers turn typos into proof of ineptitude
- Proof-read reports > 24hr after writing
 - **Have someone else edit**
 - For typos: Your brain auto-corrects your typos
 - For clarity: You know what you mean; others may not
- **Pagination**
 - “Page X of Y”



CLEARLY



THIS WAS A SUICIDE

CAUSE, MANNER &
MECHANISM OF DEATH

Cause-of-Death Analysis in Rodent Aging Studies

Veterinary Pathology
2016, Vol. 53(2) 233-243
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sagepub.com/journalsPermissions.nav
DOI: 10.1177/0300985815610391
vet.sagepub.com



J. M. Snyder¹, J. M. Ward², and P. M. Treuting¹

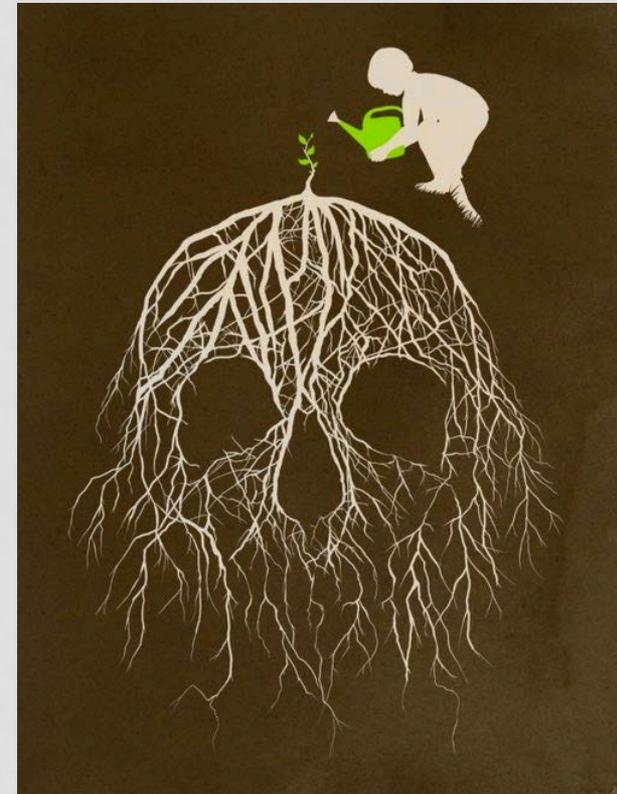
Abstract

In research studies using rats or mice, the cause of death is often not evaluated or reported. An analysis of the causes of death is particularly valuable for aging and carcinogenesis studies. Comparing causes of death among the study groups is often an important adjunct to the biochemical, molecular, clinical, and histopathologic findings. The methods for evaluating causes of death, contributing causes of death, and comorbidities have been suggested in several publications. Surprisingly, in important mouse aging studies, causes of death are often not reported. Cause-of-death assignment in preclinical rodent model aging research suffers from a lack of a standardized approach and an understanding of the value that it can add to longevity and interventional studies. While assigning single cause of death may facilitate data analysis, defining and publishing data on contributing causes (comorbidities) provides more information on associated underlying chronic conditions and health span in mouse models. This article reviews factors that affect determination of cause of death and the methods for evaluating causes of death and comorbidities. The proposed systematic pathology analysis includes assigning cause of death and comorbidities to define total disease burden. The combination of pathology with in vivo data will fully characterize the effect of tested interventions on multiple chronic diseases and health span of aging mice with improved translation to human aging and age-associated lesions.

WHAT ANIMALS DIE *WITH*
≠ WHAT THEY DIE *OF*

CAUSE OF DEATH

- **Initiates** events leading directly to death, or the **circumstances** which lead to the fatal injury
- **Why** death occurred
 - “Root” cause
- Etiologically specific
- “Cause” & “Name the Dz” on the board exam



CAUSE OF DEATH

A **synthesis**; Holistic determination (opinion!) based on:

- Medical records
- **Investigative info**
 - Crime Scene findings, etc.
- **NX findings**
- **Add'l testing**
 - Tox, virology, DNA, etc.
- **“If it weren’t for __[Dz, Event, Conditions]__, this animal would still be alive.”**



CAUSE OF DEATH (COD)

Good CODs are...

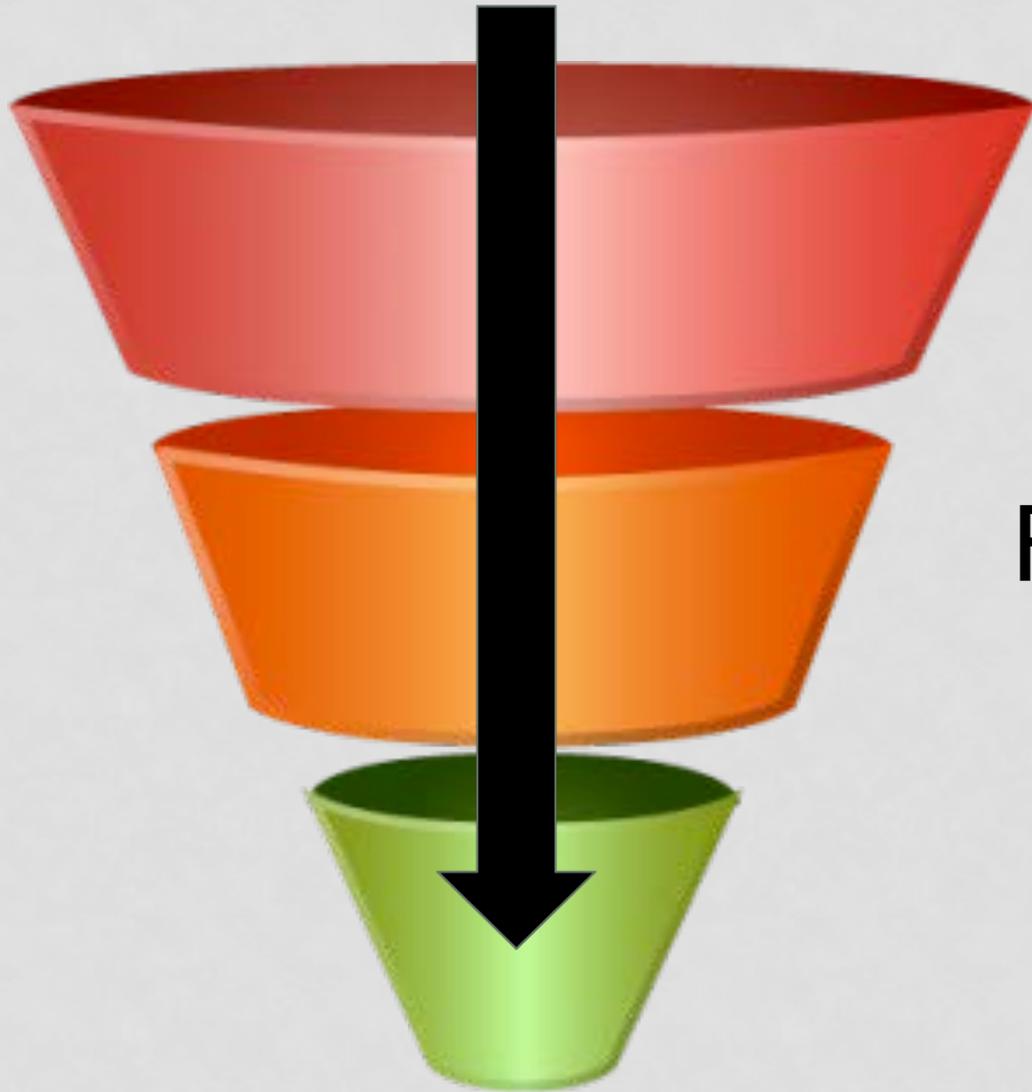
- **Specific**
 - OK: Wounds, Kidney failure
 - Better: BFT, Oxylate nephrosis
 - Best: Umbrella wounds*
Ethylene Glycol toxicity
- **Nouns / Dz names**
 - Ex: Blunt force trauma, Tick paralysis
- **Least Jargon possible**
 - You don't need a medical degree to understand the COD
 - Ex: Gunshot wound, Hit by car



COD IS NOT

- Necessarily the final disease / injury
 - AKA Immediate COD
 - Not as meaningful to the court
 - Ex: Exsanguination
- “Euthanasia” or “Old age”
 - Age is not a disease
 - Cite **reason** for euthanasia
- “Unknown” (= no idea)
 - **Undetermined**
 - You know what it's NOT





Funnel of death





Underlying COD
(specific, initiating
event / Dz)

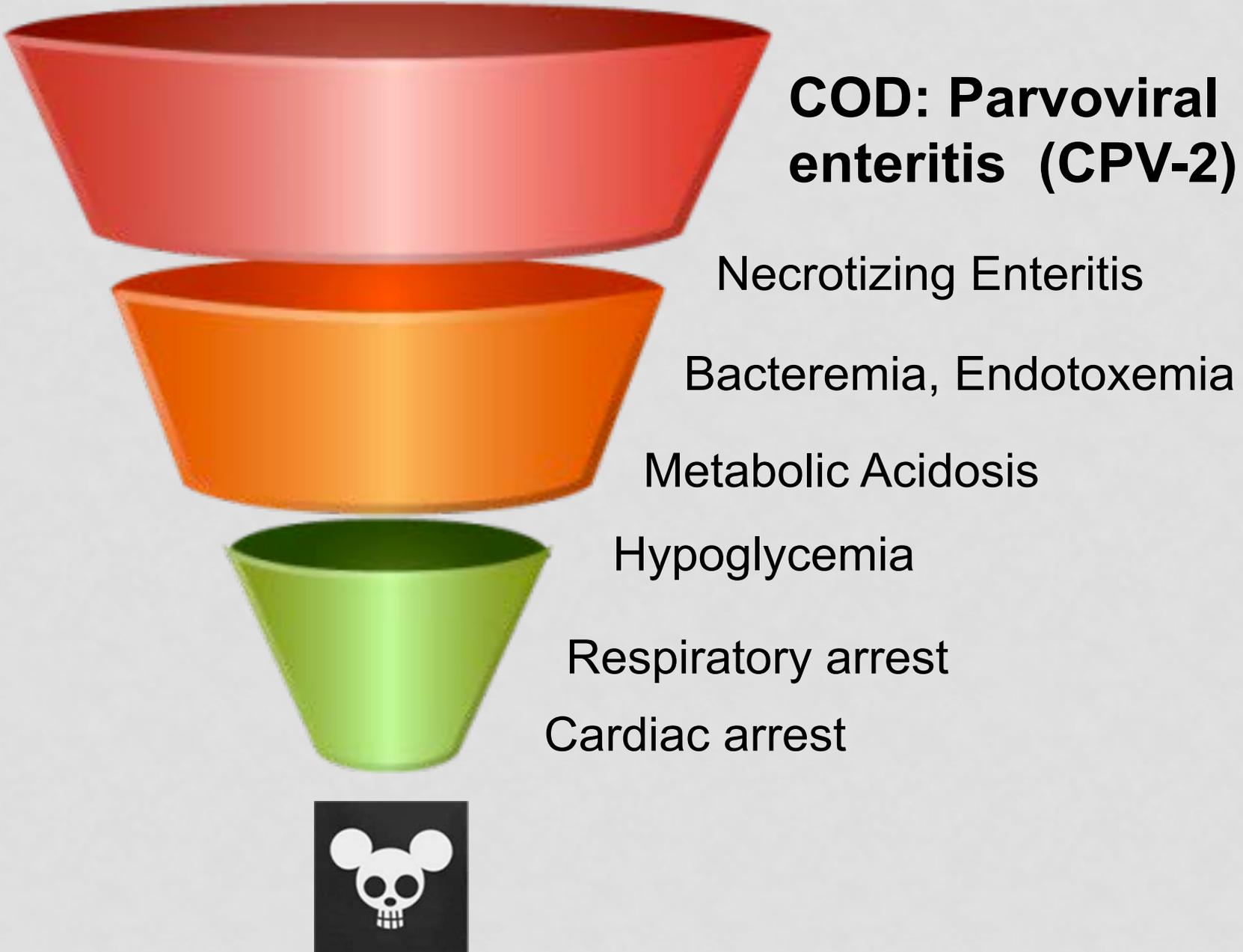


Immediate CODs



Terminal events





**COD: Parvoviral
enteritis (CPV-2)**

Necrotizing Enteritis

Bacteremia, Endotoxemia

Metabolic Acidosis

Hypoglycemia

Respiratory arrest

Cardiac arrest





COD: Gun shot wound

Blood loss

Hypovolemia / Hypoperfusion

Renal ischemia



Renal failure

Uremia

Metabolic Acidosis



Euthanasia



CONTRIBUTORY CODs

- **Co-morbidities**

- Dz, conditions, or injuries that hasten death or complicate / preclude recovery
- Distinguishing the 2 can be challenging

- **Complications**

- **Severe Dz course (bad luck) does not “exonerate” the underlying COD**
- Ex: GI Foreign body → Aspiration → Death
GI FB is still the COD



COD: Environmental Heat stroke



Hyperthermia

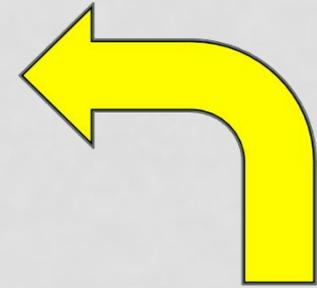


Multiple organ failure



DIC

Cardiopulmonary arrest

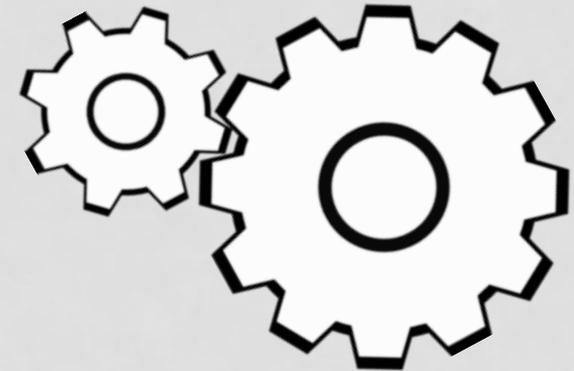


Brachycephalic Airway Dz



MECHANISM OF DEATH (MCHD)

- **Pathophysiology** set in motion by the COD
- **How death occurred**
 - Ex: Hypoxia, Hypotension
- Cannot be observed directly (“**invisible**”)
 - Must be inferred from lesions or HX



MECHANISM OF DEATH (MCHD)

- **Pathophysiology** set in motion by the COD
- **How death occurred**
 - Ex: Hypoxia, Hypotension
- Cannot be observed directly (“**invisible**”)
 - Must be inferred from lesions or HX
- **NOT etiologically specific**
 - Many CODs have the same MchD
 - Some CODs have many MchDs
- **Courts don't care**
 - Need a medical degree to understand
 - **BUT knowing the mechanism means you have a grasp of a case & acts as a “check” on hypothesis COD**



Cause of death	Mechanism of death
Drowning	Hypoxia
Gun shot wound – large intestine	Septic shock
Gun shot wound – abdominal aorta	Hemorrhagic shock
Anti-coagulant rodenticide intoxication	Hemorrhagic shock
Heat Stroke	Thermal cellular injury, DIC, +/- Septic shock
Starvation	Undetermined (likely electrolyte depletion/ imbalance)

COD: CASE STUDY

- 5y FS German Shepherd is mistaken for a deer & shot by a hunter
- Spinal cord injury → hind limb paresis & urine retention.
- Months later: BacT cystitis → pyelonephritis
- Culture: Multi-drug resistant E.coli → Azotemic, PU/PD → Euthanized due to urinary incontinence.
- **Immediate COD?**
- **Underlying COD?**



COD: CASE STUDY

- 5y FS German Shepherd is mistaken for a deer & shot by a hunter
- Spinal cord injury → hind limb paresis & urine retention.
- Months later: BacT cystitis → pyelonephritis
- Culture: Multi-drug resistant E.coli → Azotemic, PU/PD → accidents all over house → Euthanized
- **Immediate COD? Euthanasia d/t Incontinence**
- **Underlying COD? Gun shot wound**



U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
Centers for Disease Control and Prevention
National Center for Health Statistics



Instructions for Completing the Cause-of-Death Section of the Death Certificate

Accurate cause-of-death information is important:

- To the public health community in evaluating and improving the health of all citizens, and
- Often to the family, now and in the future, and to the person settling the decedent's estate.

The cause-of-death section consists of two parts. **Part I** is for reporting a chain of events leading directly to death, with the **immediate cause** of death (the final disease, injury, or complication directly causing death) on Line a and the **underlying cause** of death (the disease or injury that initiated the chain of morbid events that led directly and inevitably to death) on the lowest used line. **Part II** is for reporting all other significant diseases, conditions, or injuries that contributed to death but which did not result in the underlying cause of death given in **Part I**. **The cause-of-death information should be YOUR best medical OPINION.** A condition can be listed as “probable” even if it has not been definitively diagnosed.

Google: “CDC Blue Form Cause of death”

MANNER OF DEATH

5 categories:

1. **Natural**
2. **Accident**
3. Suicide
4. Homicide
5. **Undetermined**



- No animal suicides, only fatal accidents
- “Animal Homicide” = Killing, or
Non-accidental injury (NAI)

MANNER OF DEATH

- Classification of human deaths used to monitor accidents & crime rates
- Determining manner has legal implications (i.e., homicide is a crime)
 - Prosecutors *may or may not* pursue charges based on manner-- as determined by medical examiner
 - Some believe M.E.s should NOT determine manner
- **Sometimes manner is obvious, but cause isn't**
- Similar utility in Vet Forensics?



MANNER OF DEATH

- Animal death may or may not be a crime, depending on the species & circumstances
 - **Euthanasia** defined by the AVMA; limited to certain people & methods
 - Guidelines published online
 - If it's not euthanasia, it's just plain ***killing*** an animal

AVMA Guidelines for the Euthanasia of Animals: 2013 Edition

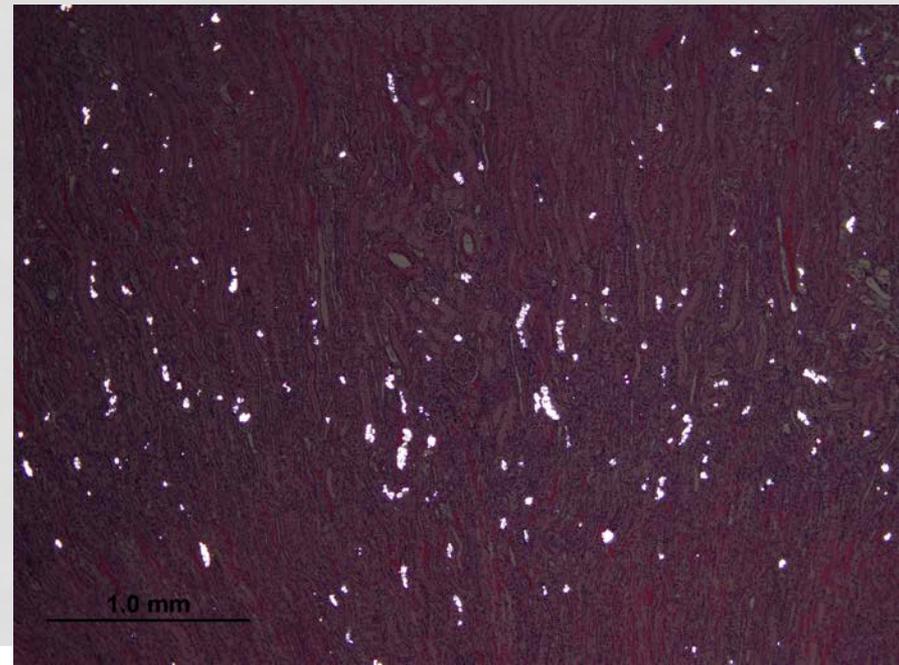
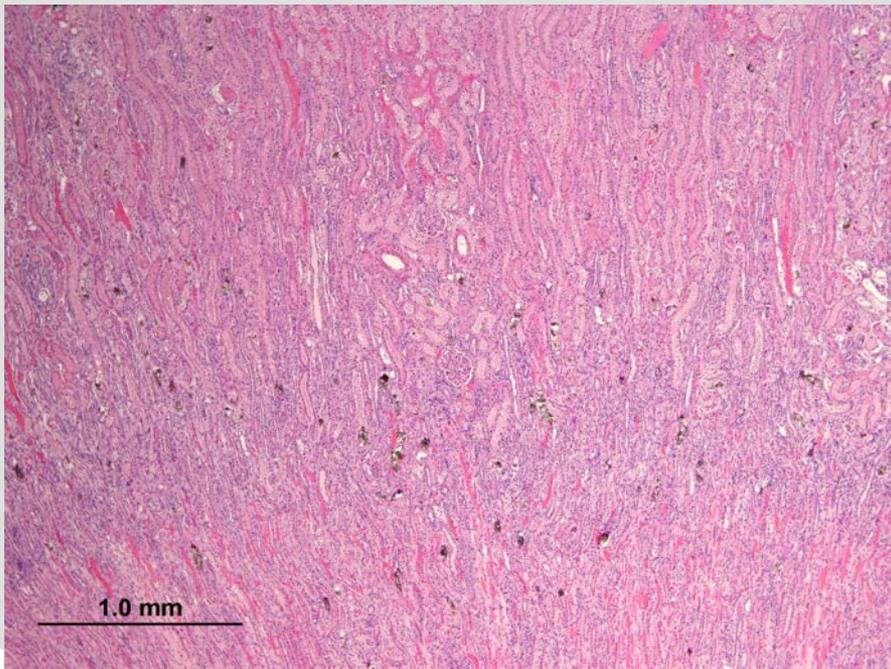
Members of the Panel on Euthanasia

Steven Leary, DVM, DACLAM (Chair); Washington University, St. Louis, Missouri
Wendy Underwood, DVM (Vice Chair); Eli Lilly and Company, Indianapolis, Indiana
Raymond Anthony, PhD (Ethicist); University of Alaska Anchorage, Anchorage, Alaska
Samuel Cartner, DVM, MPH, PhD, DACLAM (Lead, Laboratory Animals Working Group);
University of Alabama at Birmingham, Birmingham, Alabama
Douglas Corey, DVM (Lead, Equine Working Group); Associated Veterinary Clinic, Walla Walla, Washington
Temple Grandin, PhD (Lead, Physical Methods Working Group); Colorado State University, Fort Collins, Colorado
Cheryl Greenacre, DVM, DABVP (Lead, Avian Working Group); University of Tennessee, Knoxville, Tennessee
Sharon Gwaltney-Brant, DVM, PhD, DABVT, DABT (Lead, Noninhaled Agents Working Group); ASPCA Poison
Control Center, Urbana, Illinois
Mary Ann McCrackin, DVM, PhD, DACVS (Lead, Companion Animals Working Group); Virginia Polytechnic
Institute and State University, Blacksburg, Virginia
Robert Meyer, DVM, DACVA (Lead, Inhaled Agents Working Group);
Mississippi State University, Mississippi State, Mississippi
David Miller, DVM, PhD, DACZM (Lead, Reptiles, Zoo and Wildlife Working Group); Loveland, Colorado
Jan Shearer, DVM, MS, DACAW (Lead, Animals Farmed for Food and Fiber Working Group);
Iowa State University, Ames, Iowa
Roy Yanong, VMD (Lead, Aquatics Working Group); University of Florida, Ruskin, Florida

DETERMINING MANNER

Circumstances & Scene factors heavily

- Ex: An indoor-outdoor 8y MN cat dies of acute renal failure. Nx/ Histo: Nephrosis & ethylene glycol crystals



DETERMINING MANNER

Circumstances & Scene factors heavily

- Ex: An indoor-outdoor 8y MN cat dies of acute renal failure. Nx/ Histo: Nephrosis & ethylene glycol crystals
 - **Scenario 1:** The owner recalls spilling some last week on her driveway. **Manner of death?**

DETERMINING MANNER

Circumstances & Scene factors heavily

- Ex: An indoor-outdoor 8y MN cat dies of acute renal failure. Nx/ Histo: Nephrosis & ethylene glycol crystals
 - **Scenario 1:** The owner recalls spilling some last week on her driveway. **Manner of death?**
 - **Accident**

DETERMINING MANNER

Circumstances & Scene factors heavily

- Ex: An indoor-outdoor 8y MN cat dies of acute renal failure. Nx/ Histo: Nephrosis & ethylene glycol crystals
 - **Scenario 2:** A bowl of cat food mixed with antifreeze is found in the neighbor's yard with the neighbor's fingerprints on it. **Manner of death?**

DETERMINING MANNER

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 - **Non-accidental injury**

DETERMINING MANNER

- Ex: A Yorkie is found in a suitcase submerged in a park fountain. Nx: Moderate decomp; No gross or histo lesions. COD = Undetermined.

Manner of death?

DETERMINING MANNER

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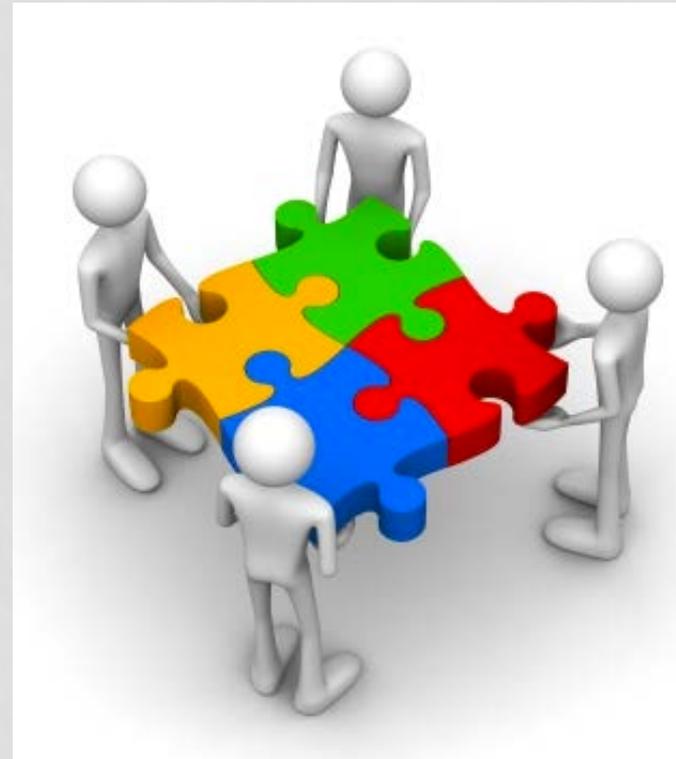
Manner of death?

- **Non-accidental injury***
- Dog cannot accidentally shut itself in suitcase & place itself in fountain

*Unless vet records of euthanasia produced →
Crime = improper disposal

COD & MANNER

- It is common to rely partially or wholly on investigative findings to determine the COD & manner, *especially* when NX does not result in a clear answer.



SUMMARY

- **Evidence**

- Look for it, document it, collect it, & start an evidence receipt (COC)

- **Photos**

- No people's faces, minimize gore
- Ruler, case ID#, & date
- Can never have too many

- **Report**

- Basic info, Description, **COD**, Summary in laymen's terms
- Cause of death is the **ROOT** cause; Laymen's terms
- Mechanism is a process; Less important in court

REFERENCES & RESOURCES

- Munro R, Munro HMC. *Animal Abuse and Unlawful Killing: Forensic Veterinary Pathology*. Elsevier Ltd; 2008
- Inquiry into Pediatric Forensic Pathology in Ontario., & Goudge, S. T. (2008). *Report*. Toronto: Inquiry into Pediatric Forensic Pathology in Ontario. Part 6: The Science and Culture. http://www.attorneygeneral.jus.gov.on.ca/inquiries/goudge/report/v2_en_pdf/v2_eng_6.pdf
- Moritz AR. Classical mistakes in forensic pathology. *Am J Clin Pathol*. 1956;26(12):1383
- Hanzlick R, Hunsaker JD, Davis GJ. *A Guide for Manner of Death Classification*. Atlanta, GA: National Association of Medical Examiners; 2002
- Long G. Recommendations to Guide Determining Cause of Death in Toxicity Studies. *Tox Path*. 2004;32(2):269–270.

REFERENCES & RESOURCES

- Touroo R, Fitch A. Identification, Collection, and Preservation of Veterinary Forensic Evidence: On Scene and During the Postmortem Examination. *Vet Path* 2016; 53(5): 880-887.
- Adams VI. Guidelines for Reports by Autopsy Pathologists. Springer; 2008
- Evidence Packaging: A How-To Guide. California Dept of Justice, Bureau of Forensic Services. http://oag.ca.gov/sites/all/files/agweb/pdfs/cci/reference/evidence_collection.pdf
- Dowling JM. Animal CSI: Gathering the Evidence. *Animal Sheltering*. 2007, July-August: 41-48.
- http://www.cdc.gov/nchs/data/dvs/blue_form.pdf