atDove Lecture Notes

ANNUAL CONFERENCE LECTURE NOTES

TECHNICIAN TRACK

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Demystifying Small Exotic Mammal Anesthesia and Analgesia for the Small Animal Practitioner

Kelly Flaminio, DVM

Introduction

Small exotic mammals are becoming increasingly popular companion pets in the community. This requires the small animal practitioner to become more familiar with these zoological species to be better able to serve their client base. The ability to provide excellent medical care to these animals highly relies on the practitioner's comfort level in administering analgesia, sedation and anesthesia. Many species, unlike dogs and cats, will require sedation for common minimally invasive procedures such as physical examinations, blood collection, imaging or IV catheter placement. It is important to change our mindset in how we work with these species to reduce stress and mitigate complications while providing care.

Getting Started

Common zoologic companion mammals:

- Ferrets*
- Rabbits
- Rodents
    - Guinea pigs
    - Chinchillas
    - Rats
    - Mice
    - Hamsters
    - Gerbils
- Hedgehogs
- Sugar gliders

*Not covered in this lecture due to similarity to other small carnivores (ie cats)

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Equipment Recommendations

- Appropriate housing (away from dogs and cats) and in hospital diets
- Heat support (incubators, heating pads)
- Small stethoscope (Littmann infant size)
- Gram scale (ability to measure to the thousandth of a kg)
- Ultrasonic doppler
- Induction chamber
- Anesthesia facemasks (variety of sizes)
- Non-rebreathing anesthesia circuit
- Small needles, syringes, IV catheters, ET tubes

Preparing for Sedation/Anesthesia

Many small animal practitioners feel uncomfortable performing sedation and anesthesia in small exotic mammals due to the perceived higher anesthetic risk in these patients. While this statement is true, the increase in risk compared to dogs and cats may be surprising. A retrospective study with a high number of patients found the overall perioperative mortality (premedication – 48 hours post-operative) to be 0.17% in dogs, 0.24% in cats compared to 0.33% in ferrets, 1.39% in rabbits 2.01% in rats, 3.29% in chinchillas, 3.66% in hamsters, and 3.8% in guinea pigs. However, in rabbits specifically, the mortality rate increased in sick rabbits to 7.37%. This statistic implies that properly preparing for an anesthetic event, and effectively communicating with the owner are important steps not to be overlooked.

Phases of Anesthesia

Planning for the anesthetic event should not be a significant shift from the normal process in planning for a dog or cat surgical procedure. The phases of an anesthetic procedure are as follows:

Phase 1: Pre-anesthesia

Evaluation
Stabilization
Fasting
Mitigation of stress
ASA score

Phase 2: Anesthesia

Equipment set-up
Body temperature
Anesthetic protocol
Pre-op blood work
Analgesic protocol

Phase 3: At home care

Discharge instructions
- Detailed handouts
- Videos

Follow-up phone call
Scheduled recheck

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In Phase 1 it is important to understand fasting recommendations in each species. Due to the increase in anesthetic risk in clinically ill patients, assigning each animal an ASA (American Association of Anesthesiologists) physical status score during the pre-anesthetic exam is an important step (see below). During Phase 2, it is important to have all required equipment ready to decrease the time under sedation and anesthesia. This step is more critical in exotic animals compared to dogs and cats as time under anesthesia directly effects mortality rates more significantly in these species. During Phase 3, the author recommends making use of the content on Lafabervet.com for detailed handouts and client videos to increase compliance of at home instructions.

American Association of Anesthesiologists Physical Status Scores

Physical Status	Criteria	Examples
ASA I	Healthy patient, elective procedure	Spay/neuter
ASA II	Mild/localized disease	Tooth trim, broken nail, wounds, mass removal
ASA III	Systemic disease without immediate risk to life	GI stasis, urolithiasis
ASA IV	Systemic disease with immediate risk to life	Foreign body, metabolic derangements
ASA V	Will die within 24hrs without intervention	Gastric dilatation & volvulus, liver lobe torsion

<u>Mitigating Anesthetic Risk and Complications</u>

The American Animal Hospital Association (AAHA) recently released anesthesia and monitoring guidelines for dogs and cats in 2020. Many of these potential anesthetic risk factors can be extrapolated to exotic mammals helping the practitioner recognize and then act appropriately to mitigate risk. Some of the most important factors for small mammals are stress, hypothermia and the inability to intubate and thus ventilate (more complete on next page):

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Potential Anesthetic Risk Factors for Exotic Mammals
Modified from 2020 AAHA Anesthesia Guidelines

- Anxiety/stress
- Alterations in body temperature
- Dehydration
- Cardiac arrhythmias
- Oliguria/anuria
- Abnormal blood values
  - Blood glucose
  - Anemia
  - Electrolyte imbalances
- Respiratory tract disease
- Inattentive monitoring
- No vascular access
- Inadequate recovery monitoring
- Inadequate patient home care

Stress

Most small exotic mammals have higher circulating catecholamines compared to dogs and cats making them predisposed to developing physiological changes associated with high stress. Physiological changes are caused by an increase sympathetic response leading to vasoconstriction, hypertension, tachycardia, elevated blood glucose and dysrhythmias. It is important to understand that the natural history of most of these species are prey animals and many are not handled nearly as much as dogs or cats. Taking a slow approach to handling with many breaks in a calm environment will lead to better success. The use of anxiolytics before arrival to the hospital or as a premedication can significantly reduce stress.

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Hypothermia

Small mammals are especially prone to developing hypothermia due to their small body size and high surface area to volume ratios. When completing a thorough physical exam, it is important to take a rectal/cloacal temperature. Hypothermia is a significant poor prognostic indicator for exotic mammals requiring immediate action. The use of heating pads, incubators or carefully placed hot water bottles should be started right away. Animals should be normothermic before sedation and/or anesthesia is started (exception ASA score V). Even normothermic small mammals can become hypothermic within minutes of starting anesthesia. Therefore, it is recommended to use circulating water blankets or heat pads that have been pre-heated prior to the administration of pre-medications. If administering fluid therapy, fluid warmers and bair huggers can also be used to warm the fluids. Fluids being administered subcutaneously should also be pre-warmed. While in recovery, active warming should be continued until the animal is normothermic, sitting up, and ideally eating.

Anesthesia Monitoring

It has been suggested that mortality rates are higher in exotic mammal species due to inattentive monitoring or lack of training in techniques to adequately monitor these patients. It is important to have one anesthetist assigned to each case that monitors the patient from administration of pre-medication to recovery (normal body temperature, eating). Because most of these patients cannot easily be intubated it is important to monitor ventilation closely. A tight-fitting facemask can be used to provide flow-by oxygen and inhalant anesthetic. In emergency situations, many times the patient can also be mechanically ventilate using a tight-fitting mask if respiratory arrest occurs. Standard anesthesia monitoring machines can be used to monitor exotic patients during sedation and anesthesia with minor adjustments to adapt to these patients.

Tips for Using Anesthesia Monitoring Equipment:

- Heart Rate
    - SPO2: Clips are sometimes too large to be placed on the tongue, but can be used on the paw, tail, ear or prepuce.
    - ECG: Non-traumatic clips can be used on most patients with good success. Alligator style clips should not be used but can be clipped to small gauge needles inserted into the skin. Do not used adhesive pads, as these can tear the skin when removed. Esophageal ECGs can also be used in larger patients.

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  - Utrasound doppler: The probe can be placed directly onto the heart, tail vein, or pedal vein for constant audible heart rate monitoring
  - Stethoscope: If all equipment is failing, the author's anesthetist will constantly listen throughout anesthesia as changes in heart rate can occur rapidly.
- Respiratory Rate
  - ETCO2: Readings can be obtained from a tight-fitting anesthesia mask, or an intubated patient. A side-stream adaptor can be fitted to a small ET tube to reduces dead-space. In the non-intubated patient, or patients with very small tidal volumes, the ETCO2 may show a low reading, however it typically will detect the respiratory rate parameter.
  - Direct visual monitoring: Ensure the patient is draped in a fashion where the anesthetist can see the patient breath.
- Temperature
  - Thermometers: Rectal or esophageal thermometers can be used throughout anesthesia.
- Indirect Blood Pressure
  - Oscillometric: Indirect blood pressure monitoring has been shown to not be reliably accurate in small mammals partially due to cuff size compared to limb size. However, this data can still be valuable in monitoring blood pressure trends throughout anesthesia. It is recommended that cuffs be placed on front limbs.
  - Sphygmomanometer: Using an ultrasonic doppler is likely a more reliable manner to measure blood pressure, however results should still be interpreted as a trend rather than direct values.

ormal Vital Ranges for Select Species

Species	Rabbit	Guinea Pig	Chinchilla	Small Rodent	Hedgehog	Sugar Glider
Temperature (F)	101.3-103.1	100.4	98.6-100.4	Notroutinely taken	95.7-98.6	89.6F
Heart Rate (bpm)	200-300	150-380	100-200	250-500	170-250	100-200
Respiratory Rate (brpm)	32-60	50-140	20-80	70-200	18-90	16-40

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Choosing an Anesthetic Protocol

Protocols using multimodal anesthesia and analgesia are essential in mitigating risk. Recently pharmacokinetic and pharmacodynamic data (especially in rabbits) have become available leading to more refined anesthetic protocols. However, the amount of information available is still limited when compared to dogs and cats, therefore protocol creation remains to be still somewhat reliant on the experienced practitioner's trial and error. A good premedication drug combination should reduce stress, provide analgesia, induce muscle relaxation, and produce an appropriate level of narcosis. Most patients will require gas anesthesia to be administered via an endotracheal tube or anesthesia mask. Inhalant anesthetics cause dose-dependent cardiovascular and respiratory depression leading to hypotension. Rabbits have been shown to be more sensitive to the vasodilatory effects of inhalant anesthetics compared to other species. Appropriate pre-medications reduce the MAC of gas anesthesia helping to mitigate risk by allowing patients to be maintained on low levels of gas.

Anesthetic Protocol Recommendations*

*Author's preference through clinical experience and research

Rabbit Pre-medication Recommendations (IM)

- Midazolam: 0.5mg/kg
- Opioid (choose one)
    - Hydromorphone: 0.2mg/kg
    - Buprenorphine 0.01-0.03mg/kg
    - Methadone 0.3-0.6mg/kg
    - Butorphanol 0.2mg/kg (poor analgesia, good sedation
- Ketamine: 5-7mg/kg
- Dexmedetomidine: 5-10mcg/kg*

*Healthy, elective. Alfaxalone (1-2mg/kg) Propofol (2-5mg/kg) can be given IV for induction if needed

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Rodent Pre-medication Recommendations

Drug (IM)	Guinea Pig	Chinchilla	Small Rodent
Ketamine	5-10mg/kg	4mg/kg	5-7mg/kg
Hydromorphone OR Buprenorphine OR Butorphanol	0.3mg/kg 0.01mg/kg 0.2mg/kg	0.3mg/kg 0.01-0.05mg/kg 0.2mg/kg	0.3mg/kg 0.01-0.05mg/kg
Midazolam	0.25mg/kg	0.25-0.5mg/kg	0.25mg/kg
Dexmedetomidine	5-10ug/kg	5ug/kg	
Induction	If IV catheter can induce with 0.5-1mg/kg of alfaxalone or propofol to effect		

Hedgehog and Sugar Glider Pre-medication Recommendations

Drug	Hedgehog	Sugar Glider
Midazolam + (chose one below)	0.5mg/kg SC	0.5mg/kg SC, IM
Butorphanol	0.5mg/kg SC	0.5mg/kg SC
Buprenorphine	0.03-0.05mg/kg SC	0.01mg/kg IM
Ketamine	3-5mg/kg SC	10mg/kg SC
Alfaxalone	3mg/kg SC	No data
Isoflurane	Via induction chamber followed by facemask	

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Lecture Notes

You're So Vein; You Probably Think This Talk is About You

Joanie Abrams, CVT, VTS (ECC)

Veins and their ideal uses:

Cephalic vein: IV catheter placement first choice in most patients. Good vein for any need. Straight, larger vessel with simple restraint to gain access

Lateral Saphenous: Large enough vessel for catheters and usually second choice if front limbs are not an option. Rolls a lot. Good for PICC lines.

Medial Saphenous: Can be a smaller vessel, but usually very straight. Good choice for feline blood draws but often overlooked in dogs. My favorite place for getting coags since not as often utilized and a straight, less rolly, vessel. Can also be good for PICC lines.

Jugular vein: Very large vessel with easy access. Can be used for blood draws especially if a large volume is needed. Have made this my first choice in several situations throughout my career (GP & bloodbank) but in emergency practice we avoid this. Two main reasons we reserve this vein is for the possibility of future central line placement and a higher percentage of our patients seem to have some sort of coagulopathy that make it less than ideal to puncture such a large vessel that is more difficult to hold off.

Dorsal pedal vein: Usually, decent sized. My secret favorite for patients that have had all their veins previously attempted. Also love these for catheters in dachshunds, corgis, and bulldogs where anatomy makes other options more difficult.

Marginal Ear veins: Small amounts of blood, PCV/TS or BG, Basset hounds, rabbits

Anesthesia super-secret: Lingual vein. If the only patient access, I have is the patient's head I can draw a sample from the vein on the underside of the tongue. Can hold pressure to prevent hematoma. Can draw decent amount of blood and even be able to run a full CBC/Chem.

Catheter placement standard:

Sterile prep in shaved area, catheter size appropriate for patient, tab your tape to be nicer to the next person reassessing your catheter. When reassessing a catheter take down to skin to assess for phlebitis.

Once catheter is placed how it is secured is also very important for longevity.

- Circumferential taping, tape should not be all stacked up one on top of the other
    - Can slip with poor tape, supply on allocation
    - Can cut off circulation, leading to megapaw
        - If your patient comes in dehydrated, need to be thoughtful during catheter placement. Their tissues will expand as they are rehydrated, and they will develop megapaw even if the tape was not too tight to begin with. May need more frequent rechecks and adjustments as they respond to therapy.
        - Not placed too close to joint, moving the leg will bunch the tape into a tourniquet
- Clean any spilled blood, can lead to serum scald or infection at catheter site. In emergency, understandable to just get access, but remember to reassess once more stable. Insertion site protection is coming into favor
- Reassess catheters to ensure patency and longevity. Phlebitis scoring and scale 1-4

Tips for getting difficult catheter placements:

- Warm the limb – small warmies to help increase circulation in the limbs, careful not to burn.
- Small patients – can use penrose drain and hemostat as a tourniquet. Keeps big thumbs out of the way, ideal for rabbits, ferrets, kittens, puppies.
- Reactive patients – viscous lidocaine on the area for 60 seconds before attempting puncture
- Break catheter placement down into two steps. First puncture the skin, second adjust and try to enter the vein. Ideal in reactive patients (don't immediately blow through the vein when they jump), thin skin (dry geriatric cats, can prevent going through and through on the vein), rolly veins (get a chance to pin the vein for puncture).
- Thick skinned pets, intact male cats, pets with chronic skin issues. Give yourself a nick or guide hole. Use a needle to make a nick in the skin (be careful to not actually puncture the vein). Then use that hole to advance the catheter so it doesn't immediately burr.
- Restraint is key, vein pops more when the limb is adducted toward the body rather than hyperextended straight out. Natural position is also more comfortable for patient.
- Don't waste a poke! Attempt to draw blood samples from your freshly placed IV catheter before flushing, can easily draw for complete bloods in most patients.

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Cut down – done by a doctor because it is "surgery".

- Can do any vein but if you are going to go through the work of a cut down, might as well place a central line.
- Sedation/pain medications.
- Sterile scrub and wear gloves.
- Lift and cut through skin avoiding vein, lightly dissect down through layers,
- Use hemostat to isolate and lift the vein. Introduce catheter.
- Suture skin around vessel. Bandage.

If venous access cannot be achieved. (CPR, neonates, exotics) – IO CATHETER placement

- IO catheters are often faster and less complicated than cut down vascular access.
- Once placed, IO catheters normally can remain in place as long as a peripheral catheter (3 days). They are left in place until they are no longer needed or peripheral vascular access can be obtained, whichever comes first.
- Bones used for intraosseous infusion should be intact (not previously fractured or used for IO placement within the last 48 hours) and the skin over the site should be healthy to avoid contamination with bacteria.
- Complications are rare but include: extravasation, bone fracture, malposition, damage to growth plates (neonates), and osteomyelitis. Most complications are outweighed by the urgent need for vascular access and can be avoided by following the procedures for sterile prep of the area and appropriate location choice.

  The areas generally used for placement are:
  - The intertrochanteric fossa of the proximal femur
  - The greater tubercle of the proximal humerus
  - The tibial tuberosity

There are other areas available for placement, especially if your practice wants to invest in a placement device like an EZIO that makes placement even faster with a short needle and an assisted drill. Manual placement can frequently be done with supplies that most practices already have on hand. In small patients like neonates or exotics the cortical bone is soft enough that you can typically use standard hypodermic needles (22ga to 18ga). In mature animals there are commercial intraosseous needles, spinal needles, or even catheter stylets that can work in a crashing patient (18ga).

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Procedure:

- Sterile prep and wear gloves during placement. I have found that attaching the needle I intend to use for placement on the end of a 1ml syringe gives me more to hold on to and leverage while maintaining aseptic technique.
- It has been found that the most painful part of placement is the introduction of the needle through the periosteum of the bone. This can be avoided by having your patient anesthetized or by placement of a lidocaine local block from the insertion point and down into the periosteum. Wait 30-60 seconds after local block before attempting placement.
- Making a small nick in the skin with a blade or needle can help reduce resistance while passing your needle.
- Using your non-dominant hand, hold the bone you intend to enter. You can rotate the limb externally to provide more exposure of the point of access. Touch the needle down to the bone perpendicularly. The initial cortex is firm and requires some pressure to get through. You want the needle to enter the bone down the medullary cavity, much like an intramedullary pin. Pushing the needle into the bone with your dominant hand, it can help to twist the needle while pushing and avoiding lateral movement. Once you have pushed the needle through the cortex there will be a loss of resistance with a sensation like scraping the needle over sandpaper.
- If using a spinal needle or IO catheter, you can at this point remove the stylet. When using hypodermic needles, there is a chance that you can core the bone and get it lodged into the lumen of the needle. This can be dislodged with gentle flushing, but if not the needle can be carefully removed and a new one replaced down the same tract.
- The needle should be aspirated, flushed with saline, and attached to a T-port. Placement should be confirmed by flushing before each use.
- The needle can be sutured in place to avoid becoming dislodged with movement. Bandaging the area can also avoid contamination by the patient during longer term placement.

Confirmation of proper placement can be made by flushing with saline. It should flush easily and there should not be an accumulation of SQ fluid in the area. When the limb is moved the needle should move with it and feel firmly seated. If time allows, placement should also be confirmed with two view radiographs of the limb. All fluids, medications, and even blood products can be administered IO at similar rates to IV access.

When you are ready to remove the IO catheter, simply remove the bandages and suture and pull the catheter with a twisting motion. Typically, there is no leakage after removal and no long-term effects of placement to the bone.

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Lecture Notes

Too Little, Too Much, Too Late: Starvation and Refeeding Considerations

Sarah Harris, CVT, VTS (ECC)

Refeeding syndrome refers to a potentially fatal sequela of metabolic derangements that occur after reinstituting nutrition after a period of anorexia, starvation, or severe malnutrition. Regardless of the reason for starvation – anorexia due to pain, disease, trauma, or lack of food resources, the body shifts to a catabolic state. This catabolic state means fat and muscle are broken down and used for energy instead of consuming food. With the reintroduction of carbohydrates to the diet, the body can now begin to use food for fuel, and switches to an anabolic state. With the influx of carbohydrates, a massive insulin release occurs in the body which leads to the already depleted electrolytes being pushed intracellularly- leading to a significant whole-body depletion. This sudden anabolic activity increases the cellular need for oxygen and puts a strain on the body as it tries to keep up with these new requirements. Metabolic derangements include severe hypophosphatemia, hypomagnesemia, hypokalemia, hyponatremia, hypocalcemia, hyperglycemia, and vitamin deficiencies.

Hypophosphatemia is the most common and consistent abnormality seen in refeeding syndrome and results in many of the complications seen. Phosphorus moves into the cells with refeeding to support energy metabolism. Severe hypophosphatemia, hemolytic anemia and death can occur within 12-72 hours of refeeding. Phosphorus is one of the most important serum chemistry values to measure in refeeding syndrome patients. It is present in all cell membranes and vital to cell wall integrity, renal function, muscle contraction, and nerve signaling. The main source of phosphorus is contained in the food an animal eats. As that animal stops eating, they are no longer taking in phosphorus and the body level will deplete. Hypophosphatemia can cause arrhythmias, hypoventilation, and weakness. When levels drop below 2g/dl the animal can experience red blood cell lysis which can cause significant anemia. It is important to monitor phosphorus levels and supplement the IV fluids as needed to keep the levels as close to the normal range as possible. As nutritional intake of phosphorus increases, the patient can begin to maintain normal levels on their own.

Potassium and magnesium are also rapidly utilized or moved intracellularly leading to deficiencies and a ride range of clinical signs. These signs include muscle weakness, respiratory and cardiovascular depression, arrhythmias, and obtunded mentation or in severe cases coma.

Excellent nursing care and monitoring are paramount to successfully managing these critical patients. Their status can change quickly, many times per day, and knowledge of what to watch for is important. Nursing staff should have knowledge on electrolyte disturbances, medical math, general nursing care, and should be able to educate clients around the ongoing care that will be needed at home. These patients require multiple blood samplings per day and often need advanced procedures such as central lines, feeding tubes, and CRIs to supplement electrolyte derangements. Nutrition is necessary for the survival of any critical patient and prevention of refeeding syndrome may not always be possible. Preparedness by knowing what to watch for and by identifying who is at-risk is key to managing patients with refeeding syndrome.

Terminology

Anorexia	• A lack or loss of appetite over time. Completely absent of food intake.
Hyporexia	• A reduced intake in food
Starvation	• Fat stores replace glucose as the primary fuel
Cachexia	• Loss of body mass, including lean muscle and fat, secondary to a disease state • Causes a change in metabolism as opposed to an energy deficit
Malnutrition	• A lack of proper nutrition. Caused by lack of eating the right things or unable to absorb the right nutrients. Not to be confused with a lack of availability or interest. • Correlated to increased patient morbidity and mortality

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Effects of malnutrition by system

Body System	Increased	Decreased
Gastrointestinal	• GI transit time • Risk of bacterial translocation	• Absorption of nutrition (villous atrophy)
Urogenital	• Excretion of urinary calcium and phosphorus • Gluconeogenesis	• Glomerular filtration rate
Immune		• Barrier function • Inflammatory response • Leukocyte motility • Bactericidal activity
Respiratory		• Elasticity • Secretions • Response to hypoxia • Tidal volume
Cardiovascular	• Arrhythmias	• Heart muscle weight
Musculoskeletal	• Surgical dehiscence	

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Burns K., Nutrition for Critical Care, 12/2014

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Lecture Notes

Confident Communication with Clients: Engaging Owners in Patient Care

Jessica Waters-Miller, CVT and Kelsey Reinauer, CVT

Introduction:

(Infomercial) These people probably would benefit from a confident and skilled technician who taught them how to do these things at home.

What comes to mind when you are asked to do a treatment such as a blood draw in front of a client? Is it scary? Intimidating? Annoying? Does it make you nervous? Why!? If you can perform skills in front of just your coworkers, you can perform them in front of owners, if you are properly prepared.

When you go to your doctor, what gives you confidence in your care team? Mutual respect, a level of trust and rapport. Personally, I appreciate efficiency, empathy and confidence.

Let's talk about why Jess and I are the ones here talking to you about this today. I am currently the blood bank director at DoveLewis. I perform most of the technical skills that I do in front of the owners of my blood donors. Prior to this I worked at a busy GP in the Pearl district, where you got close with your clients as most of them live very close and stop by routinely just to say "hi". I credit this experience for a lot of my people skills. Jess is a technician trainer at DoveLewis. Her job is to teach people! I have personally witnessed the impact she has had on people, too. We ran into a client at a coffee shop near Dove and he recognized Jess and was so thankful for the help she had provided in the hospital. The things that we do on a daily basis STICK with people, even if that person is a small part of our day, we may be a pretty big part of theirs.

Our goal for this lecture will be to give you tips and tricks you need to be confident to do the entirety of your job while being watched by a client and give owners the support they need to continue care after they have left your hospital. We want you to be able to communicate with clients in a way that will instill confidence in the care you are providing. Recognize your team's strengths and weaknesses and use them to your advantage. We will teach you how to use language that makes sense to them and be prepared to adapt. Hopefully because of all of this, you will see an increase owner compliance by teaching them what they need to be doing at home to take care of their pet.

Many of us got into this profession for the love of animals. Maybe it didn't hit you until later that you are also going to have to "deal with" their people. Despite what you may think or hope, being a veterinary technician often comes with a fair share of caring for the humans as well.

It is easy to get intimidated by having to have a conversation with a stranger. Remember, you already have something in common with this person: you both care for their pet. You're not strangers, you're teammates. You are going to help support them through this visit and continuing care at home. The more you feel comfortable you feel with someone, the more confident you will be in yourself. So, get comfy! Ask them questions! This doesn't have to be a business transaction and being serious doesn't mean being solemn. Have some empathy for this person, they may be scared or stressed out. They likely don't KNOW everything you know! It is easy to get overwhelmed by medical jargon. They want you to be confident in what you're telling them, which is going to be reflected in HOW you are saying it.

You don't need to be a confident person to exude confidence. Fake it til you make it! Remind yourself of the fact that you ARE A MEDICAL PROFESSIONAL. Your patients are sometimes gross or dirty, smelly even. You have dog hair on your scrubs, and is that anal glands right there?? If you walk into that room and greet the client using their first name and make eye contact, they aren't going to notice or care what is on your scrubs. They don't know that you are coming out of a euthanasia, and maybe your heart is broken for the client in the next room. These are the kind of transitions we must cope with sometimes in our field. Continue to hold your head high. If you have something that brings you confidence, use it or do it often! This can be something as simple as having your name tag on, having a lucky charm in your pocket, or wearing a fun accessory. Each new visit is a new opportunity to impress someone with your knowledge and skills. Having some fun facts to share can help break the ice. Did the dog just yawn? Whip out your dog yawning fun fact!

It goes without saying that some clients are going to be chattier than others. In order to stay efficient and on schedule, you will have to learn how to multitask. Take vitals while you chat with them about their holiday plans. Be prepared to politely redirect the conversation if it goes off topic or if you need to move on to the next task. Awkward silences are the worst, so have some ice breaker conversation topics ready to go.

I'm sure we have all experienced that client that makes the comment that makes everyone cringe. Some comments are just too uncomfortable to address (such as MOST of the ones that are made while you're taking a rectal temperature). But for some comments you can have responses at the ready. "Does that hurt them?" Maybe a little, but we are going to give them this treat while we do it to distract them from any discomfort. "You're using the JUGULAR VEIN!?" Yes, this vein is the easiest to find, makes for a quick blood draw, and we can save peripheral veins for IV catheters. "Why can't I be the one to hold them?" Well, for liability reasons we need to have one of our employees hold them, but we would love for you to stand where they can see you and know that you're there. "I don't want them to hate me." They aren't going to hate you! Your pet knows how much you love them by how you care for them so well.

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There are not many things more uncomfortable watching someone be unprepared. It is highly likely that you know what you're going to be doing before you walk into that room, and what you will need to do it, so be prepared! Your enthusiasm will only get you so far. It will be more efficient if you are prepared for your tasks and you will be able to put all of your focus into your patient and what you are doing with them. Communicating with your team is also important. If you are about to go give fluids to the patient in a room, let someone other than whoever is going to be with you know. That way if things seem to be taking longer than they should, you can come be rescued, and your teammates won't get frustrated when it appears you are MIA.

In my experience, becoming fear free certified and utilizing those techniques is an absolute asset. You will be making your job easier by having tools and tricks to help make your patient more comfortable. In almost every case, even if unsuccessful, the client will be so grateful that you tried to make this better for them and their pet. Getting certified as a fear free professional will help elevate you to your clients, it shows that you are passionate enough about making this a pleasant experience that you are willing to go through extra training. The fear free curriculum is also helpful in teaching you about animal behavior, and you can explain to owners what you are seeing that is showing you that their pet is stressed out or comfortable.

Know what you know, and what you don't know. If doing a lateral saphenous blood draw isn't your strongest skill but needs to be done with the owner present, ask if you can restrain while your coworker does it. It is okay to tell a client that you are learning to become more proficient in a certain skill and ask if it is okay if you perform it with your mentor present. Be prepared to tap out, poke, poke, pass is a good rule of thumb. No one wants their pet to be a pin cushion while you try to learn this task while under pressure (in front of the owner). After the treatments are over, ask for feedback from your coworker, or recap what went well and what could be improved upon.

Many clinics are already doing many treatments in front of clients, so the term "open hospital" shouldn't be a scary one! The concept of an open hospital is becoming more and more popular across the board. Emergency chains like VEG and general practices like Modern Animal are using open hospital concepts to help include owners in their pet's care. This isn't surprising as more and more we see pet's being cared for more like human children than animals. It is important for us to foster this evolving human-animal relationship and be adaptable to changing how we practice as well. As a pet owner, would you choose the hospital that let you be involved in your pet's visit over one who always took the patient's "to the back". This concept is going to be especially hard for us, as a profession, to overcome immediately after practicing "curbside" due to COVID. This concept encourages transparency between the owner and the clinic (hopefully resulting in less "you're just trying to get my money" conversations). It also gives the pet owner a brief glimpse into the hard work that you do day to day. Many people do not realize how much a CVT knows and does daily, or how many people it takes to run a dental procedure, or the tricks we have up our sleeve for that pug nail trim. In veterinary medicine we must adapt to our patients in so many more ways than human medical providers do, and we don't have the benefit of mutual conversation.

Where do we start? In general practice it is going to be easier to start on doing basic things in front of clients than it will be in emergency medicine. Performing basic tasks like giving vaccines or cleaning ears is a good way to get started and used to having "an audience", then moving on to more advanced tasks like blood draws and medication administration when you are comfortable. For new employees or less experienced technicians, it is a good idea to have a bit of practice "behind the scenes" before throwing them in with clients. Some "advanced" treatments to do in front of an owner could include things like dental procedures, lacerations repairs, mass removals, and emergency care such as CPR or blood transfusions.

These skills aren't just important for in-hospital use. Many of the things we ask owners to do at home are things that we needed to LEARN over time. You weren't perfect at cleaning ears the first time you had to clean ears. Why would you know how much of a poop sample to bring in if you DIDN'T do this every day? Don't treat people like they are stupid for not knowing the things that you were taught. It is now your job to TEACH THEM. Remember that you are on the same team, and for this team to be successful, all the players must know what they are supposed to do and be set up for success to do it.

Involving clients in ongoing care and communication surrounding ongoing care

Start with setting up expectations for yourself and the client. Such as what they can expect to learn from you, discharge instructions and reassure them that you will be able to guide them through this and answer any questions that they may have.

We used to go over discharge instructions with clients in a room and that was the first time they would hear that information. When the COVID shutdowns started we started sending discharge instructions to clients prior to discharges. This is helpful because the client can then read them over prior to you getting together with them and then also going over the information with them. We know the more times people hear, see or read things the more they will retain them.

Utilize prerecorded videos clients can refer to and documents with pictures when applicable. Labeling everything clearly can also be very helpful.

When talking with clients about their pet and their care it is essential to be mindful and use a caring tone and attitude. Being approachable will help set the client up for success and following your hospital's standard of care will keep the information the client is receiving consistent. This will help with compliance. Compliance is key to better pet care.

You will then go over discharges with them. Explaining different the different medications they are going home with and what they are for. It may be helpful to write down what each medication is for or have information sheets that explain a little more about each drug.

You should then check in on how much they understood and retained. Utilizing the Teach-Back method is a great way to do that. The Teach-Back method is a researched based practice used in place of our long-standing education habit such as asking clients “do you have any questions?”. The teach-back method is used to confirm understanding via the client's own words.

The basics to teach back are:

- Use a caring tone and attitude
    - Think about being approachable
- Use plain language
- Ask open ended questions with what or how
- If the client is unable to teach back or recall correctly or confidently, explain again and recheck

Utilize a coworker if you are feeling like someone else may be able to communicate with the client better. Do not look at this as defeat but as an opportunity to utilize your coworkers and build new skills.

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Lecture Notes

Building Belonging and Connection During Times of Challenge

Sonja Zabel, DVM, MS, DACVD – she/her
Sarah Harris, CVT, VTS (ECC) – she/her
Monica Maxwell, SPHR, SHRM-SCP, MBTI – she/her
Debrah Lee, LCSW – she/her

Working in the field of veterinary medicine is both challenging and rewarding. In times of stress, it may feel as though the work is about mere survival; however, it can also be work that supports thriving – as individuals and as a community. Our connection with our teams greatly impacts our experience in the workplace and influences our work. Interpersonal dynamics in the workplace matter – particularly whether we feel that we have a voice.

"Psychological safety is a belief that one will not be punished or humiliated for speaking up with ideas, questions, concerns, or mistakes, and that the team is safe for interpersonal risk-taking." - Amy Edmondson

Amy Edmondson's early research looked at adverse drug events in human hospitals. They initially hypothesized that the most cohesive teams would have the fewest errors. Instead, what they found is that the teams with the greatest cohesion had the greatest number of reported errors. That sense of cohesion was identified as psychological safety. Psychological safety gives people voice. It enables them to be able to share their thoughts, ask questions, and make mistakes. (Mistakes in healthcare can be particularly fraught. We may get stuck vacillating between two thoughts: mistakes are bad, and mistakes are a part of living.)

Did you ever have an idea or suggestion that you didn't voice? Was there ever a time when you didn't ask for help? Have you ever seen someone make a mistake and not say anything? Have you ever made a mistake and didn't tell anyone? Were you ever struggling but didn't tell anyone?

When we don't feel safe, we withhold. We keep the gift of learning from ourselves and others. A lack of safety may also drive us into a stress response (fight, flight, freeze, or fawn), which inhibits our ability to think and connect. Connection cannot happen in the absence of safety. Psychological safety is the bridge between surviving and belonging.

Belonging is a core human need. We cannot build connection without voice – i.e., psychological safety – and we cannot feel safe if we don't feel that we belong.

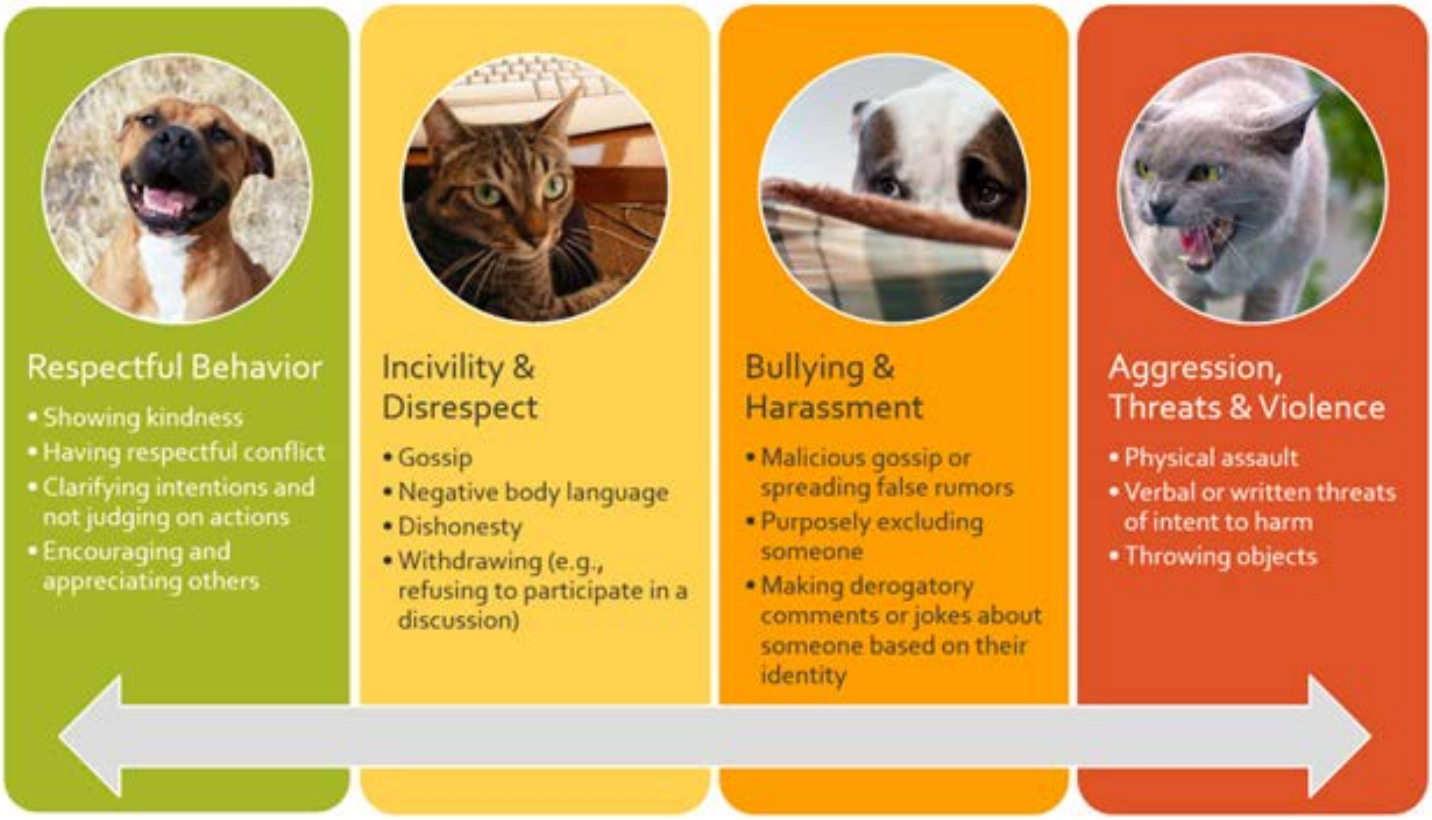
1. *Edmondson AC. Learning from mistakes is easier said than done: Group and organizational influences on the detection and correction of human error. The Journal of Applied Behavioral Science. 1996;32(1):5-28. doi:10.1177/0021886396321001*

"Because true belonging only happens when we present our authentic, imperfect selves to the world, our sense of belonging can never be greater than our level of self-acceptance." - Brené Brown, Gifts of Imperfection

"True belonging is not something you negotiate externally, it's what you carry in your heart. It's finding the sacredness in being a part of something." - Brené Brown, Braving the Wilderness

Belonging is intimately connected with the relationship that we have with ourselves. We also live within and are influenced by multiple systems and social contexts based on our unique life experiences and circumstances over time. These factors – our identities of privilege and/or marginalization; relative position within an organization due to hierarchy, seniority, or technical skills; the communities in which we have previously or currently reside – can contribute to our understanding and sense of belonging.

Workplace Behavior Continuum



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The Merck Veterinary Well-Being Study III found that one of the most important actions that employers can take is to provide a climate that fosters well-being and mental health, which includes creating a strong sense of belonging to a team and candid and open communications among team members. In the workplace, we all have a role and opportunity in influencing the conditions for belonging by upholding dignity – i.e., seeing and cherishing unique identities and treating others with respect. We get to belonging through inclusion.

Our panelists offer a few guiding principles that support them as they seek to practice respectful behavior in the workplace with the aim of fostering inclusion and promoting psychological safety.

- Assume generously
- Allow for multiple truths
- Lean into curiosity
- People are experts in their own lives
- Be aware of the wake you leave behind

Practicing communication and having respectful conflict can be challenging and developing a better understanding of the relationship between intention and impact can be a helpful part of the process.

"The only way to know what someone intended is to ask them – and the only way to let a person know their impact is to tell them." - Center for Creative Leadership

Our panelists also offer some of their intrapersonal and interpersonal strategies that support them in practicing respectful behavior in the workplace with the aim of fostering inclusion and promoting psychological safety.

Intrapersonal Tools	Interpersonal Tools
• Practice self-awareness • Self-compassion[4] • QTIP: Quit Taking It Personally • "But what if it's fine?" • 30 seconds of something that you enjoy • Affirmations • Take your breaks • To do list & It's ok NOT to do list	• Find your pause • Ask yourself: Is it... True? Necessary? Kind? Is it useful? • Reflect, Acknowledge, Apologize • Communicate your needs • Call people in rather than calling them out

3. Veterinary wellbeing study. Merck Animal Health USA. https://www.merck-animal-health-usa.com/about-us/veterinary-wellbeing-study. Published February 8, 2022. Accessed October 7, 2022.

4. To learn more about self-compassion, visit Kristin Neff's website (https://self-compassion.org/), which offers more information including guided practices

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