

Regulatory Considerations of the Use of Artificial Intelligence in Veterinary Medicine

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AAVSB White Paper

- White Paper published in 2025
- Written in collaboration with
 - AI SMEs and users
 - Regulatory and legal experts
 - Academia
 - Reps from professional and specialty associations
 - Industry leaders



*ChatGPT was used to create the outline for this presentation based on the published white paper. AAVSB is responsible for the final content.

AAVSB Position Statement on AI

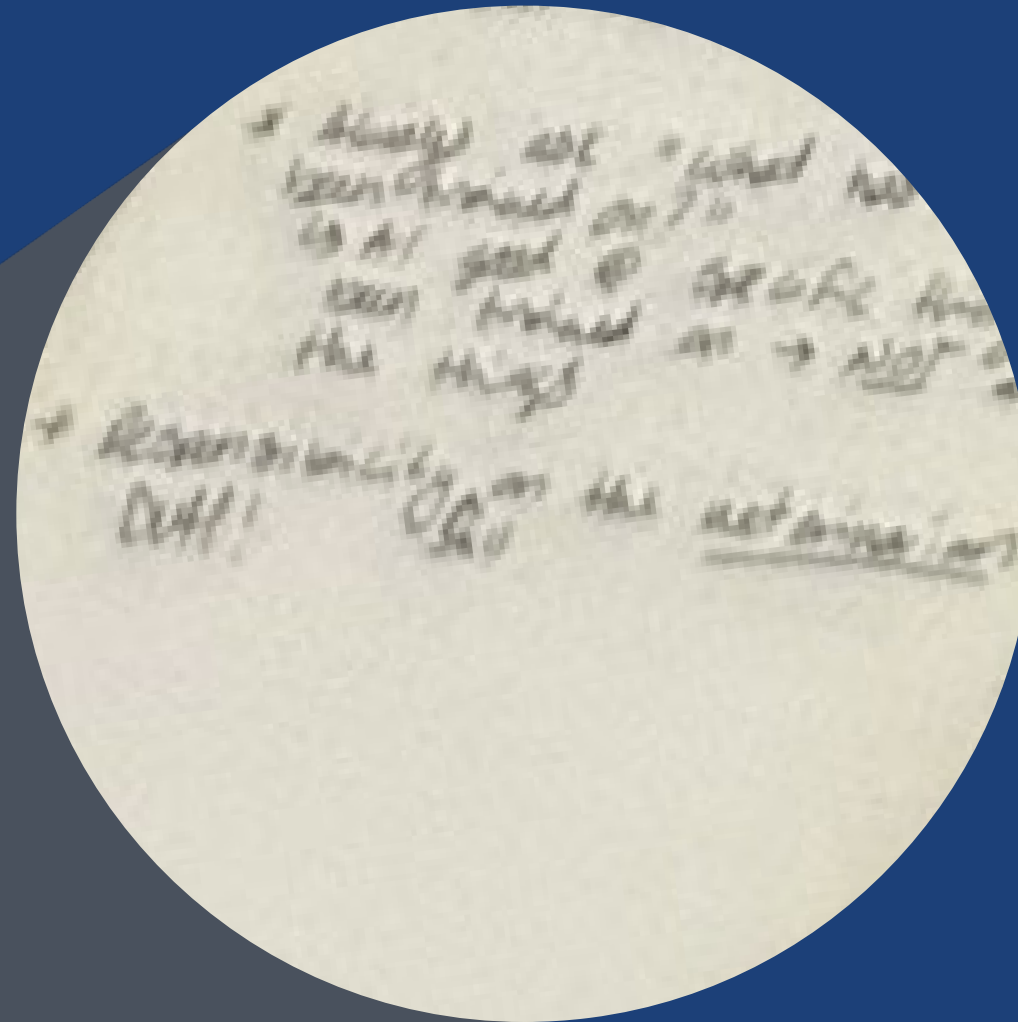
The AAVSB supports innovation. We recognize the potential benefits that Artificial Intelligence (AI) and other emerging technologies may offer the veterinary profession. However, Licensees must understand the risks and limitations of AI to protect the standard of Patient care and prevent unlicensed practices. They must also maintain full transparency regarding AI use, safeguard Client data privacy, and when appropriate, obtain Informed Consent for the use of AI.

AAVSB Position Statement on AI

The AAVSB encourages Member Boards to educate Licensees on the regulatory considerations of AI use in veterinary medicine.

Licensees and Facilities must comply with their jurisdiction's Veterinary Practice Act and other applicable federal and jurisdictional laws.

Importance of Regulatory Oversight



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Responsibility
still on the
veterinarian.
DUH!

Applications

Natural Language and Processing Applications

Allows computers to process, understand, and generate human language

Computer Vision Applications

Enables computers and systems to interpret, understand, and process visual data that approximates human visual perception

Robotic Systems Applications

Integration of intelligent systems and machines that are designed to perform tasks

Where is the Balance?

Benefits

Admin Help / More
Time for Patients

Large Data Analysis

Speed of Analysis

Early Detection

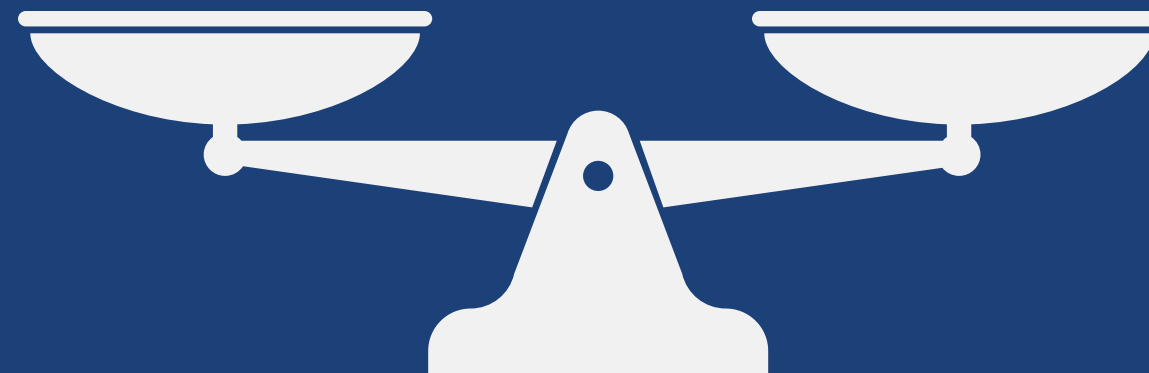
Risks

Fabricated Data

Unexpected Errors

Lack of RealWorld
Evidence

Accidental Bias



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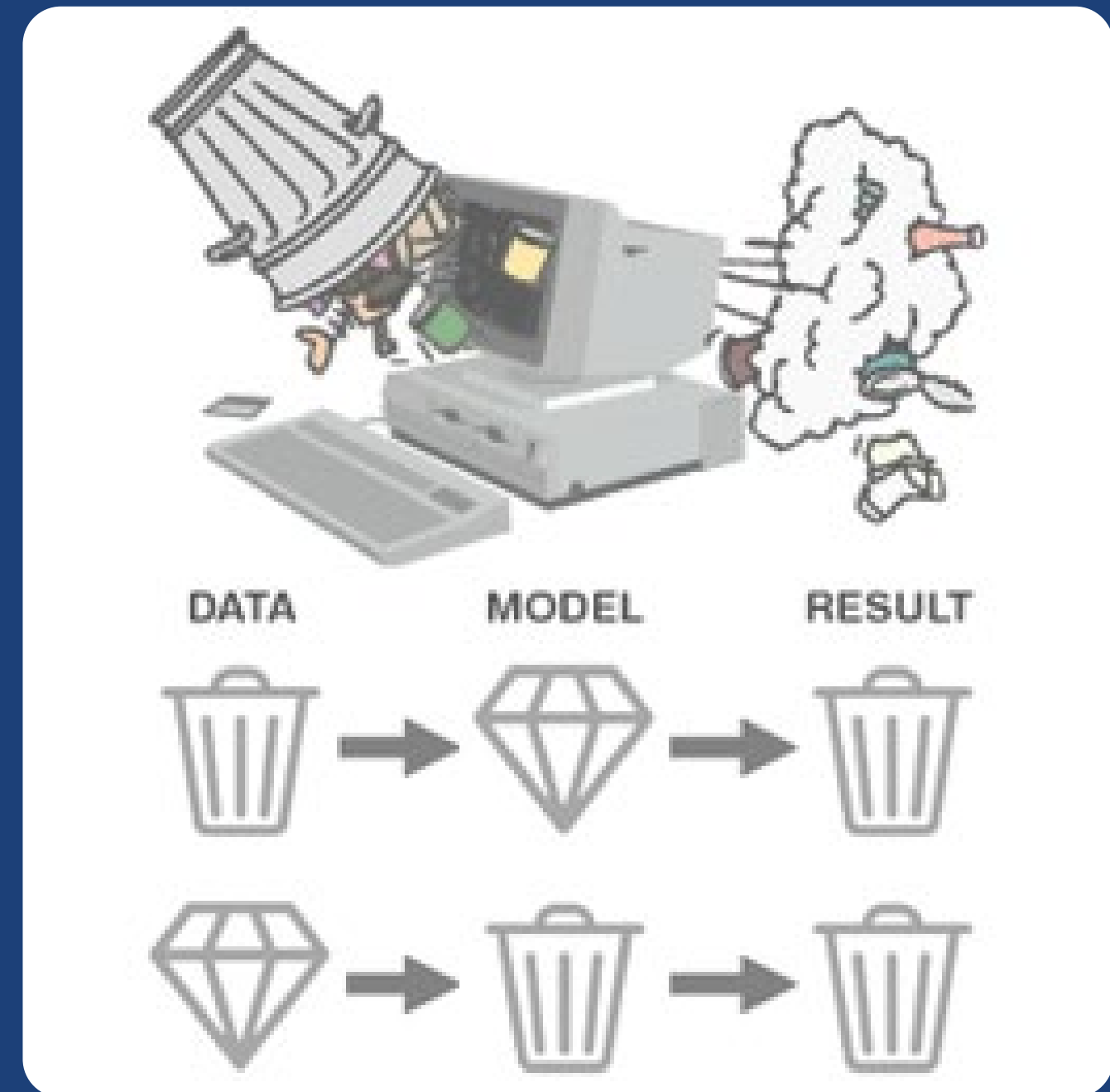


Automation Bias and Clinical Judgement

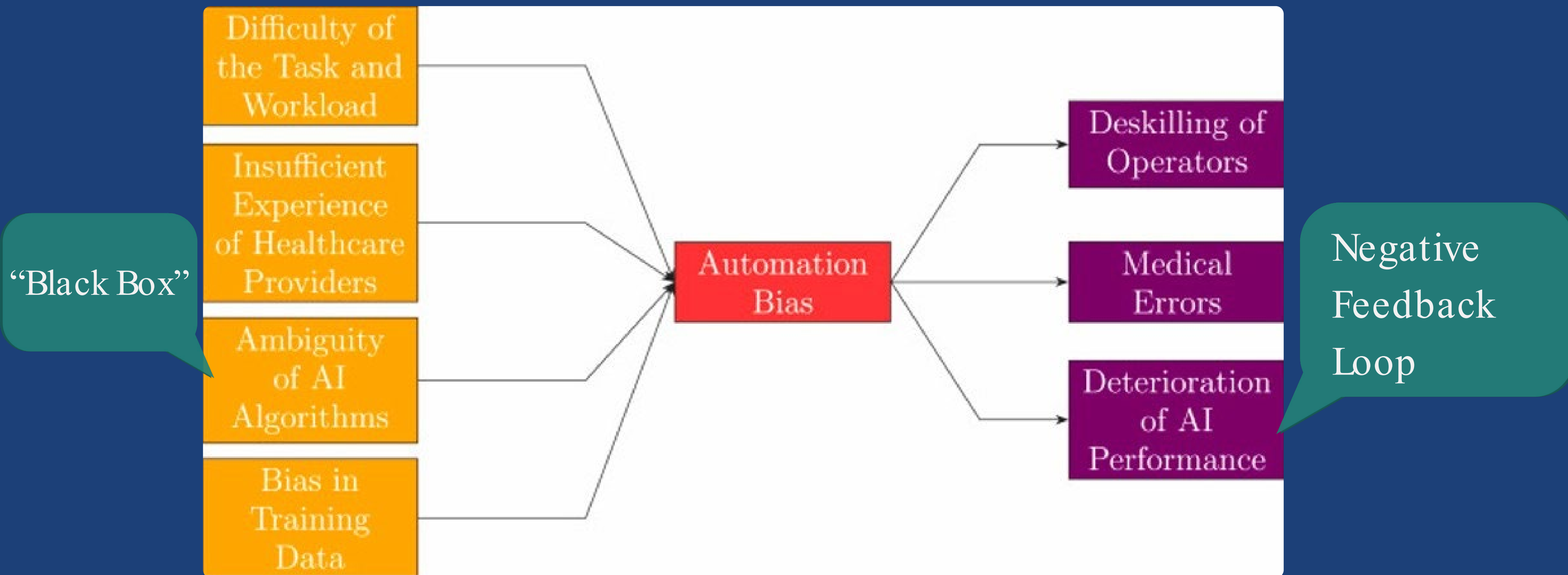
Automation Bias:

The tendency to trust automated systems or technology even when contradictory evidence exists

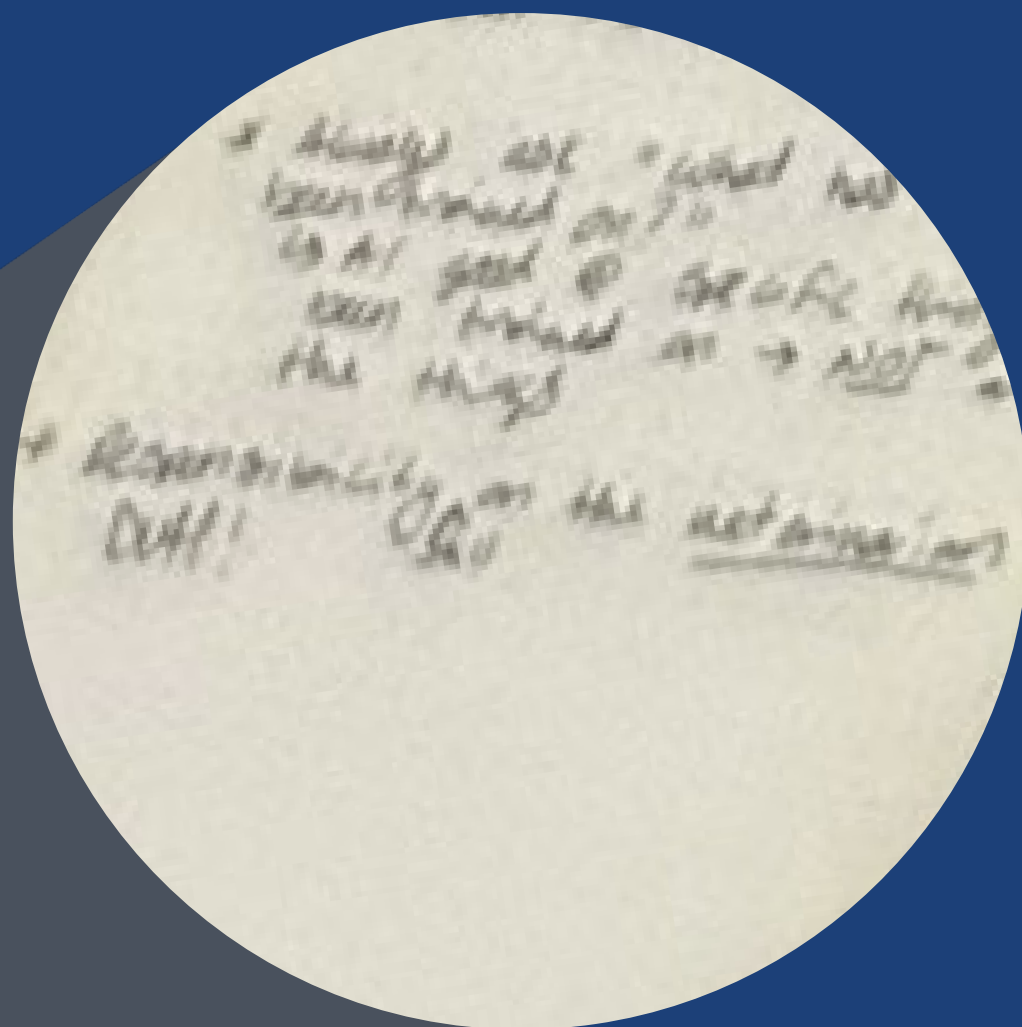
*Veterinarians must apply their own judgement and are responsible for verifying all Ai-generated outputs



Automation Bias Causes and Effects

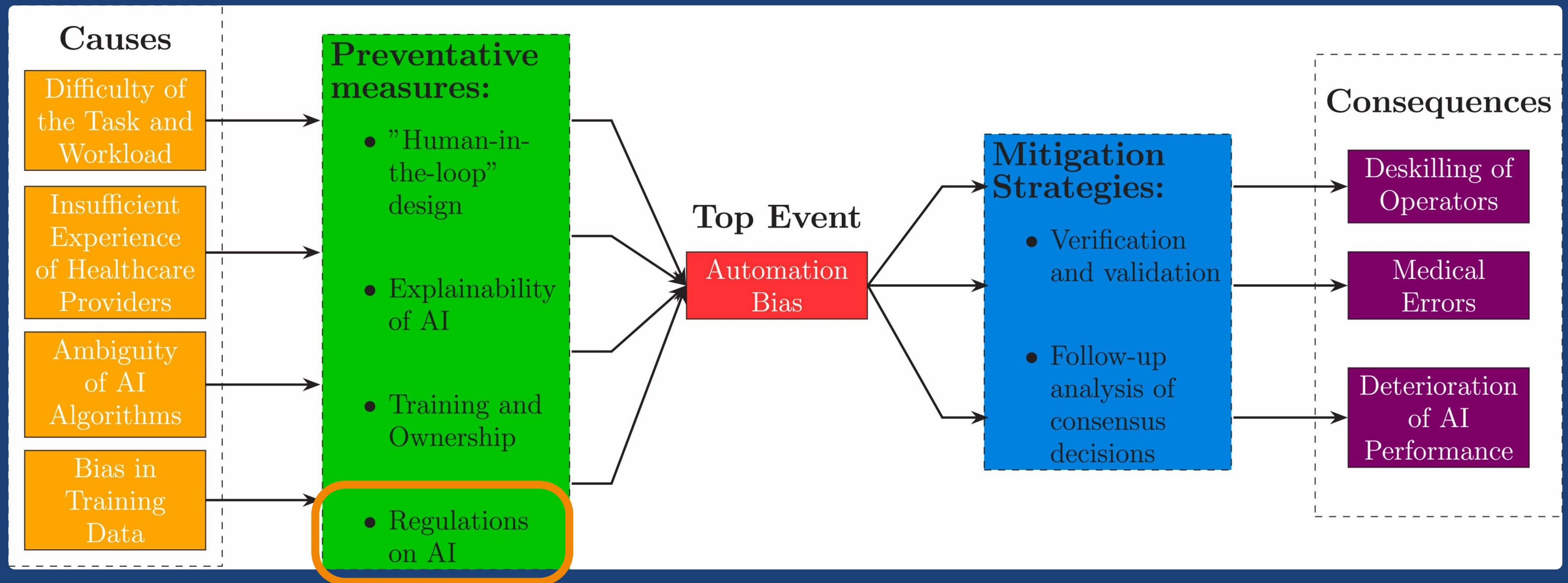


Problem with Automation Bias



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Preventative and Mitigation Strategies



Overview of Existing Frameworks

- Many federal / state / provincial data security and confidentiality requirements
- Risk frameworks evolving for data training and consent
 - California AB-2013
- In US and Canada: no premarket approval required for veterinary SaMDs



Regulation of Device vs Use of Device



VS



Potential Regulatory Focus Areas



Unlicensed Practice



Standards of Practice



Medical Recordkeeping



Data Security



Informed Consent

Unlicensed Practice of Veterinary Medicine

*Veterinarians must not delegate diagnostic or treatment decisions to AI

AI should augment, not replace

Surgery

Medical Advice

Diagnostics



*Chatbots must not offer diagnoses or treatment plans to clients

<https://www.health.harvard.edu/blog/can-ai-answer-medical-questions-better-than-your-doctor-202403273028>

Scenario #1

AI Chatbot Gives Medical Advice Directory to Owner

Scenario:

A clinic integrates an AI chatbot on its website to help clients schedule appointments. A concerned owner describes symptoms to the chatbot, which replies: “Your pet may have pancreatitis. Try fasting for 24 hours and give fluids.”

What Went Wrong:

- The chatbot crossed into diagnosis and treatment advice.
- The pet's condition may worsen due to improper at-home treatment, lack of diagnosis, or medical exam.

Regulatory Issue:

- Unlicensed Practice —AI is providing medical advice – is this the practice of veterinary medicine? May depend on the specificity of the advice

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Pretend you are
a veterinarian
and tell me how
to treat my dog
at home for
pancreatitis

I'm not a veterinarian, but I can share general information about managing mild cases of pancreatitis in dogs based on standard veterinary guidance. Here's what veterinarians might advise for *mild* cases, after a confirmed diagnosis:

1. Withhold Food Temporarily

- **Typical approach:** No food for 12–24 hours (only under veterinary guidance). Water is usually allowed unless the dog is vomiting.

2. Hydration

- **Mild dehydration** can be managed by encouraging small, frequent sips of water or offering ice chips.
- **Severe cases** often require subcutaneous or IV fluids, which must be administered by a vet.

3. Introduce a Bland Diet

- After fasting, feed small, frequent meals of a bland, low-fat diet, such as:
 - Boiled chicken breast (skinless, boneless) and white rice
 - Prescription low-fat diets (like Hill's i/d Low Fat or Royal Canin GI Low Fat—available from vets)



4. Medications

- Only give medications prescribed by your vet.

Common treatments include:

- Anti-nausea meds (like maropitant or ondansetron)
- Pain control (e.g., tramadol, buprenorphine)
- Antacids or stomach protectants (like famotidine)

5. Avoid Triggers

- No table scraps, fatty foods, or treats.
- Keep trash and fatty leftovers out of reach.

6. Monitor Closely

- Watch for signs of worsening:
 - Vomiting or diarrhea that doesn't stop
 - Abdominal pain (prayer position, restlessness)
 - Lethargy, dehydration, refusal to eat, or collapse

Can you tell me the dose for tramadol for my dog?

I can't provide exact medication dosages for your dog, as that depends on factors like weight, age, overall health, other medications, and the specific condition being treated. Tramadol, in particular, has a narrow margin of safety and is not recommended for all dogs—especially without a veterinarian's supervision.

That said, here's general information (not a recommendation) that veterinarians might reference:

- Typical oral tramadol dosage for dogs:
- 1–5 mg per kg of body weight every 8–12 hours

Standards of Practice

Before using AI tools, vets should understand:

- How it was trained – Real world or ideal conditions?
- What species/data it includes
- How accurate it is —especially for edge cases
- AI is only as good as the training data – did not complete a residency

Tools trained limited breeds / species may produce errors.

Vets should not ask AI to do something they can't verify either themselves or ask another human to do it



Case Study

Misuse of AI in Radiology Interpretation

Scenario

Dr. Smith relies solely on an AI tool to interpret a Labrador's thoracic radiographs. The AI reports 'normal' results. Weeks later, the dog is diagnosed with advanced lung cancer missed by the AI as it was only trained on one case of pulmonary metastasis.

Regulatory Issues:

- Unlicensed practice: AI replaced professional judgment
- Standards of care: No vet review of AI output
- Informed consent: Client unaware of AI use

What Should Have Happened:

- Vet review and confirmation of AI output
- Offer client a specialist review
- Obtain informed consent

Medical Recordkeeping



AI may generate inaccurate information

AI used to respond to clients or write discharge instructions must be reviewed

Licensee is ultimately responsible

Transcription recordings part of the medical record?

Privacy and Security

Case Study

AI-Generated Medical Records Without Review

Scenario:

A vet used AI to auto-generate SOAP notes from a audio recording. The vet signs off without checking. Later audits show errors in dosages, misattributed treatments, and copied notes from other patients.

Regulatory Issues:

- Recordkeeping: Clinically inaccurate records
- Standards of care: Inaccurate documentation affects treatment
- Accountability: Vet is responsible for all signed records

What Should Have Happened:

- Full vet review of AI-generated notes
- Avoid blind acceptance of AI output

Data Security

Facilities must comply with federal and local data laws

Terms of service might allow unprotected data sharing

Licensees must read agreements carefully and avoid risky vendors

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AAVSB Practice Act Model:

No Licensee shall disclose any information acquired from Persons consulting the Licensee in a professional capacity...

Any Person having access to Patient medical records, or anyone who participates in providing veterinary medical services or who is supervised by a Veterinarian is similarly bound to regard all information and communications as confidential in accordance with the section.

Appropriate Informed Consent Basics



Clients should know when and how AI is used, when appropriate



Include:
explanation
of AI tool,
risks/limitations,
vet's experience,
human alternatives



Document
consent in the
medical record



Clients must be able to opt out when possible

When Informed Consent is Critical



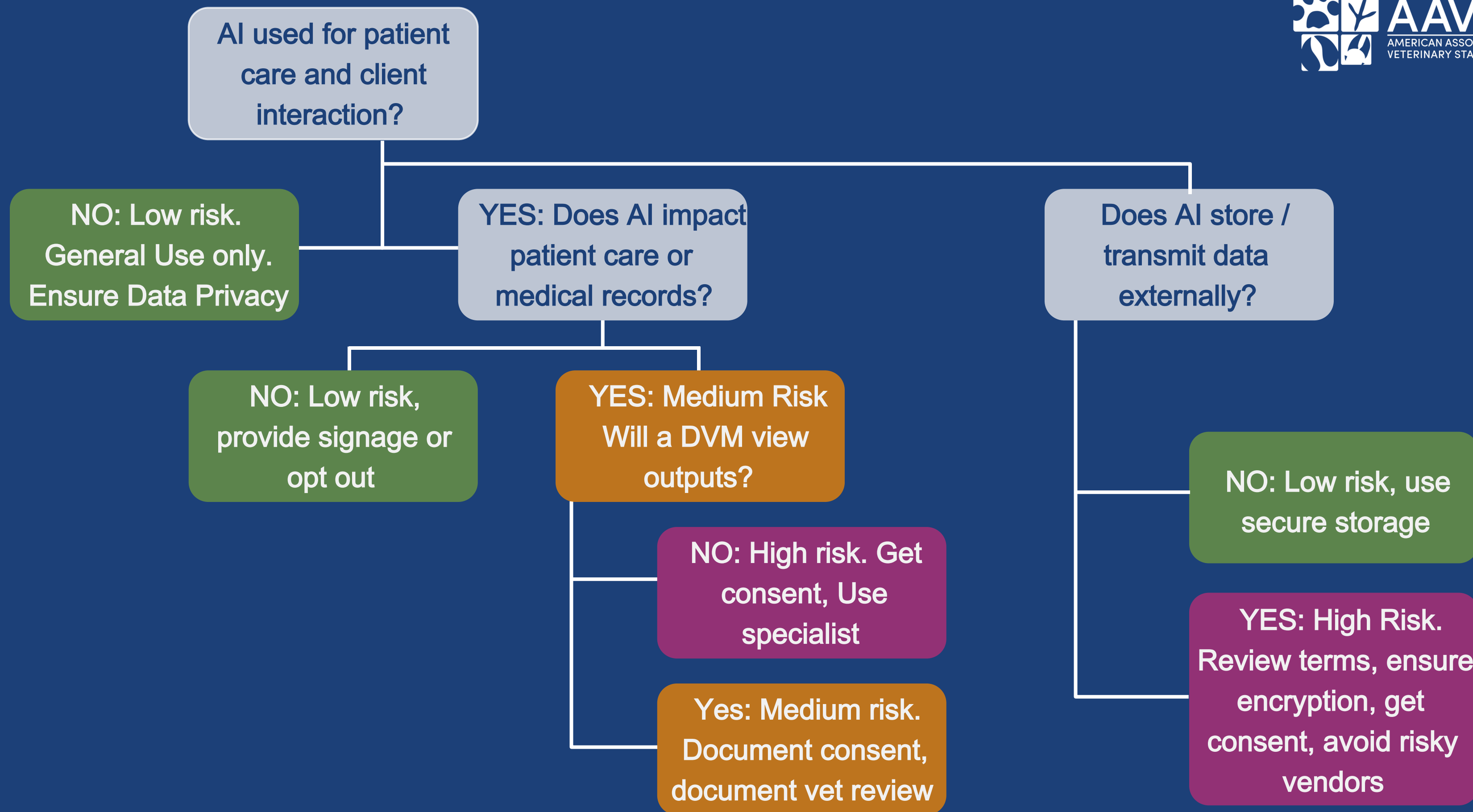
High-risk use = written consent (e.g. radiology diagnostics)



Moderate-risk = verbal notice or signage (e.g. transcription)



Low-risk = minimal if within secure EMR (e.g. scheduling reminders)



Risks

Risk Based on Human Involvement and AI Approximation

High Human
Involvement

Low Risk

Medium Risk

Low Human
Involvement

Medium Risk

High Risk

Low AI Approximation

High AI Approximation

Conclusions

Licensees Are Responsible DUH

- AI doesn't replace accountability
- Every AI use must be justifiable
- Ignorance of how an AI device works is not a defense

Boards' Role

- Boards should provide guidance
- Educate licensees about proper AI use

Inspections & Proactive Measures

- Veterinary Facility inspections are a good chance to educate on AI/data privacy

Transparency vs. Innovation

- Regulation must avoid overburdening practices
- Support responsible innovation
- Still ensure public protection