Incident causation analysis in a veterinary referral hospital 2022-24

Introduction

While incident reporting systems are widespread in human healthcare, they are rarely used in veterinary medicine. Consequently, there is limited evidence currently available to inform the development of patient safety systems in veterinary practice. While a few incidence reports of veterinary errors and mortality rates are available, attempts to identify contributory factors and take systems approach to incident mitigation are rare[1].

Materials and Methods

Analysis of data from the first two years (2022-2024) of using a purpose-built adverse event reporting system, with incident investigation using a modified contributory factors framework[2], in a small animal referral hospital.

Results

159 events occurred over 9439 animal visits during the 2-year period. The most common category of event was care management (96 events; 60%), followed by surgical events (23; 14.5%), clinical complications (22; 14%), unanticipated resuscitation (12; 7.5%), and device/product related (6; 4%). Impacts were categorised as near miss (12; 7.5%), no harm (55; 35%), mild/moderate morbidity (72; 45%), severe morbidity (6; 3.5%), death or euthanasia (14; 9%). Individual staff factors were the most common contributory factors (78 cases) and included experience level, knowledge and skills, cognitive lapses, and situational awareness. Patient factors including temperament, owner factors, and clinical condition were next most common (76 cases). Investigation prompted remedial action in 96 cases: including, staff training in technical and non-technical skills, morbidity and mortality rounds, safety checklist introduction, and guideline/procedure implementation and review.

Conclusion

Implementation of an adverse event reporting system with incident investigation using a modified contributory factors framework in a veterinary referral hospital allowed for remedial action and system changes to improve animal safety.

References

1. Oxtoby C, Ferguson E, White K, Mossop L. We need to talk about error: causes and types of error in veterinary practice. *Vet Rec* 2015 Oct 31;177(17):438. doi: 10.1136/vr.103331.

2. Yorkshire Quality and Safety Research Group. *Yorkshire Contributory Factors Framework*. Available at: https://improvementacademy.org/resource/yorkshire-contributory-factors-framework/. Accessed 27 Nov 2024.