Sedation versus anaesthesia in sick patients

Matthew Gurney

I would recommend removing cost from the sedation versus anaesthesia argument by charging for your time rather than set anaesthetic fees. With a sick case, I may choose sedation, but with a similar level of monitoring and care to general anaesthesia. Ask yourself where the cost is incurred here? The answer is the time of professional colleagues and not the cost of volatile agent! Ensure owners understand this and appreciate the value to their pet.

I actively discourage the term 'light sedation' or 'light anaesthetic' as these terms are predominantly used to reassure clients, but carry a false perception. Let us be realistic and discuss risk with clients and illustrate this with numbers.

The Confidential Enquiry into Perioperative Small Animal Fatalities (CEPSAF) was conducted between 2002 and 2004 by Brodbelt and colleagues, published in 2008. The objective of this study was to estimate the risks of anaesthetic- and sedation-related mortality. Outcomes at 48 hours were recorded, with anaesthetic-/sedation-related death considered to have occurred where the pre-existing condition did not cause death. An expert panel classified cause of death. Approximately 98,000 dogs, 80,000 cats and 8000 rabbits were enrolled in the study (Figure 1).

Figures for mortality have improved since Hall and Clarke's study of 1990, but are still high compared to the risk of anaesthesia-related death in people which is

0.02–0.005%. Most veterinary postoperative deaths occur within 3 hours. For most of these the cause was classified as unknown.

Does sedation carry less risk than anaesthesia? This is confounded by health status so the reduced risk with sedation is not valid.

Assessment and stabilization of health status is far more likely to impact mortality than assuming that sedation is safer. It is often not the drugs *per se*, but rather how we use those drugs and how we monitor our patients.

KEY LEARNING OBJECTIVES

- Understand that health status is a better predictor of mortality than the choice between anaesthesia or sedation
- Apply current literature to inform clients of the best approach for their pet
- Learn the risk factors that contribute to mortality and mortality

MULTIPLE CHOICE QUESTIONS

1. Which is the riskiest period of anaesthesia?
(A) Premedication (C) Maintenance
(B) Induction (D) Recovery
2. Which of the following has been shown to increase mortality?
(A) Anaesthesia over sedation
(B) An experienced surgeon
(C) Urgent procedures
(D) Sevoflurane
3. What is the risk of anaesthetic death in sick cats?
(A) 1.4% (C) 44%
(B) 14% (D) 74%

	Overall	Healthy	Sick	Postoperative (%)
Dog	1:601 (0.17%)	1:1849 (0.05%)	1:75 (1.33%)	47
Cat	1:419 (0.24%)	1:895 (0.11%)	1:71 (1.40%)	61
Rabbit	1:72 (1.39%)	1:137 (0.73%)	1:14 (7.37%)	64

Figure 1: Risks of anaesthetic- and sedation-related mortality.

SIRS, shock and sepsis: what's the difference?

Simon Cook

In human medicine the definition of and treatment recommendations for sepsis are evolving. The diagnostic criteria for systemic inflammatory response syndrome

(SIRS) were previously used to define sepsis. However, there has been a shift towards recognizing that those SIRS criteria, in a patient with an infection, contained physiological responses, compared to the 'life-threatening organ dysfunction caused by a dysregulated host response to infection' that now defines *sepsis*. The term *septic shock* is reserved for those patients in whom there is an infection, organ dysfunction (e.g. cardiovascular, renal, respiratory, gastrointestinal, hepatic, central nervous system) and profound systemic instability.