

Small

MINIMAL STRESS CAT ANAESTHETIC

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I believe the most important part of anaesthetic safety is having a patient that is not excited on self-generated adrenaline. So how can we blood sample, cannulate, and intubate an anaesthesia patient with virtually no stress with just one single potentially painful needle-prick? Being a cat-only practice offers many advantages –and I am not sure our technique works in a noisy doggy environment. But if you can achieve this, here is perhaps a different way of working, for your consideration.

Starting at the owner's home

The stress-assessment should start at home and be continued through to its hospital cage:

1. Give 50–100 mg gabapentin 2 hrs pre-journey if the patient is a car-stressed cat.
2. Avoid all contact with dogs, visual, vocal, and olfactory throughout, as best your practice permits. (A chair in the corner of a busy mixed species waiting room does not count! Peace and calm must descend—humans too, so lowered voices, no shouting.)

Venepuncture and blood tests

Do you really need to collect bloods before anaesthetising the patient?

Personally, it is very rare that I would alter my approach to a G/A based on the blood results for a known stable patient that looks outwardly normal.

Wait till the cat is sedated/asleep before venepuncture and then run tests immediately. Ditto insertion of an I/V cannula.

Surely, cannulation is the most stressful of all the stages of an anaesthetic?

Cats just hate having their forelegs forcibly restrained! I do not care how many times you have done it but no matter how efficient you are there will be some cats who resist this under mild premedication.

Sedation

We favour domitor/butorphanol for the healthy young-middle-aged cats, swapping to midazolam/butorphanol for the potentially compromised/senior patients. For the freakier ones we add in a tiny dose of ketamine approx. 5 mg (0.05mL). Whilst I/M speeds up the process we find S/C injection in the 'scruff' entirely satisfactory with a little patience—it obviously needs a bit longer, but this reduces the discomfort factor even more.

1. Once the patient is well-sedated, we gently introduce a facemask. This is a clear, soft, silicon model, allowing the cat to see, reducing any panic.
2. Starting with pure 100% oxygen, Isoflurane is introduced and increased by 0.5% steps once 4 nice breaths occur at each concentration. If any breath-holding or shallow-breathing occurs, hold at this dose till proper breathing resumes. This usually takes the form of big, determined breaths allowing the concentration to be notched up quite rapidly.
3. Complete calm is needed at this stage—no loud talking or banging doors.
4. After a short period on 5% isoflurane, routine laryngeal spraying with lignocaine and intubation can normally be achieved without further intervention.
5. For the cat that will not go to sleep we then add propofol to effect (usually 0.5–1mL for a 4kg cat) via a 25g needle carefully inserted distally into the cephalic vein. Squeeze tightly on withdrawal and you still have an un-spoilt vein higher up for cannulation.

Once anesthetised go ahead and catheterise, phlebotomise, and proceed. I much prefer a wee nick in the skin with a new size 15 scalpel blade prior to inserting my catheter, pulling the skin laterally and incising to the side of the vein. It makes the whole process so much more precise and saves a lot of wasted plastic.

For our neuters we adopt a similar approach

Subcutaneous domitor/butorphanol, mask down with isoflurane, no intubation, and Atipam to recover. There is never a problem with intubation and laryngospasm! Suction, a laryngeal lignocaine spray and a cuffed tube and laryngoscope are always close to hand. The only problem we ever had was a kitten that decided to go into pulmonary oedema on recovery with frothy blood spewing from his lungs. Had the suction been in the cupboard I am sure we would have lost him.

So, for neuters the G/A bit is easy, and recovery quick. This means lots of de-sexing can be done in a short space of time. So why not de-stress your feline workload even more by doing castrate-while-you-wait. Or spay with no delay? Instead of programming all your admittances for early doors you can schedule them in at an allotted time, do the job immediately, and ship them home within the hour. Clients who have to travel will appreciate it, the cats spend a minimum time with you (in what may be a less-than-optimal environment) and it frees up valuable cage-space. It's not for every client and every cat on every occasion for sure—and maybe you guys do it anyway—but it's certainly not the norm in Blighty.

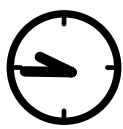


Figure 1. Chilled

Figure 2. Room with a view

Figure 3. The most stressful part

Figure 4. Sedation starting to work

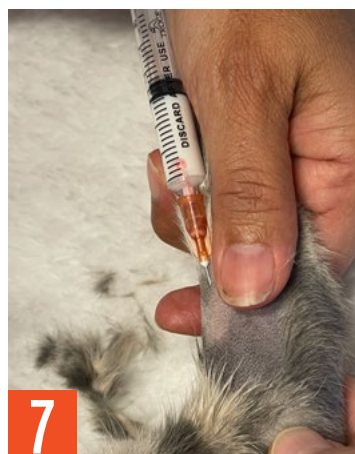
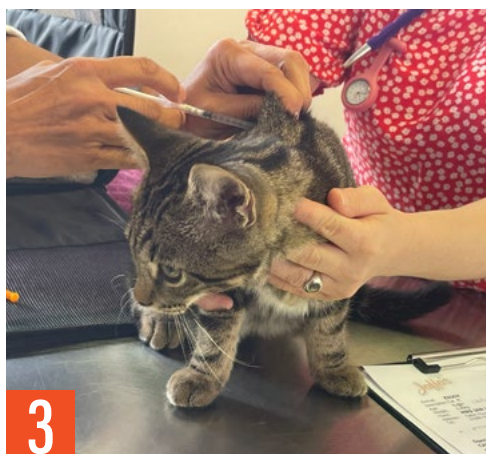
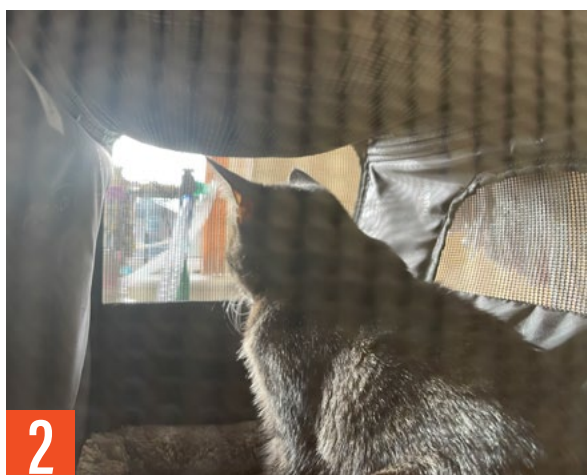
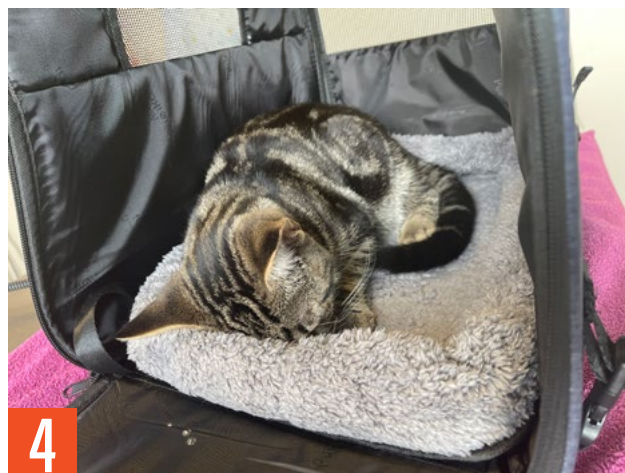
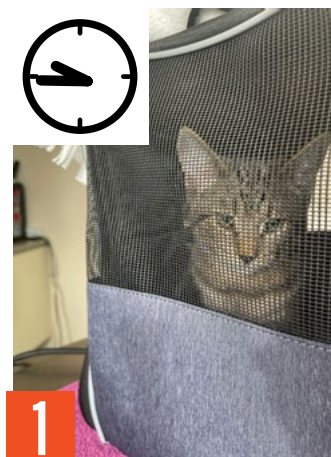
Figure 5. Applying mask

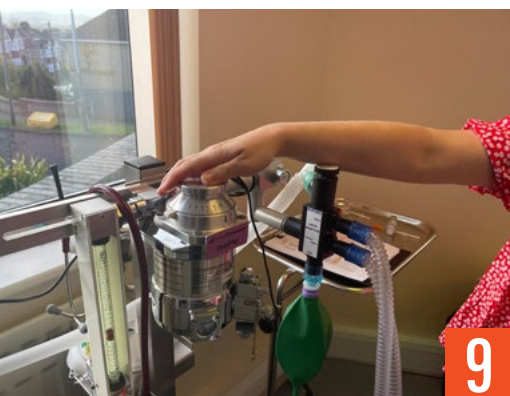
Figure 6. Nil stimulus

Figure 7. Propofol top-up

(not required for this cat)

Figure 8. Suction on standby

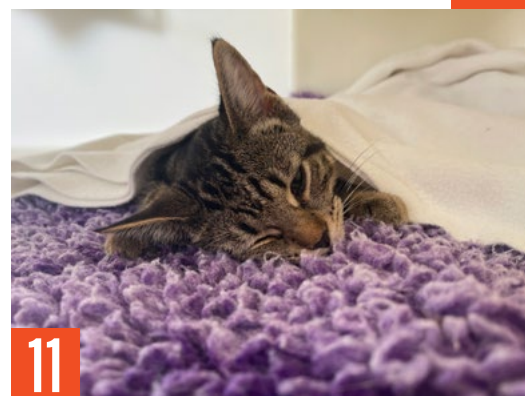




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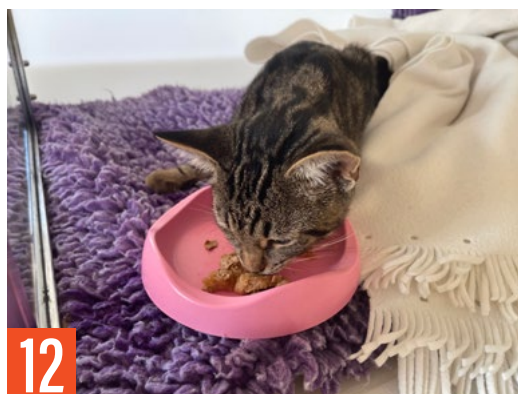


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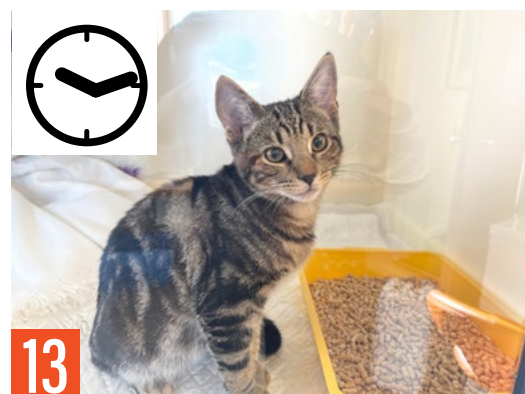


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Figure 9. Upping isoflurane
Figure 10. Reversing sedation
Figure 11. In recovery
Figure 12. Breakfast
Figure 13. Take me home



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CALL FOR CASES – FELINE INJECTION SITE SARCOMA

Dear Colleague

A group of researchers including Dr Mark Westman (EMA), Professor Jacqui Norris (Sydney School of Veterinary Science) and Richard Malik (Centre for Veterinary Education) are progressing a project funded by the Australian Companion Animal Health Foundation from the Australian Veterinary Association.

Purpose to determine:

- The prevalence of injection site sarcomas (ISS) in Australian cats, and
- If there is a link between ISS and particular vaccines or drugs injected into the scruff (or other sites); and
- If, and why, ISS cases are anecdotally less common in Australia

Like to be involved?

If so, we require the patient details of animals with this diagnosis in order to tease out the underlying epidemiology.



Figure 1: Injection site sarcoma in a cat

All information will remain confidential.

Please e-mail the following to the lead researcher, Dr Mark Westman at mark.westman@sydney.edu.au

1. The patient's medical record
2. OR List the vaccination history of the cat and document any other drugs given near the ISS
3. Provide details of the histology report from the pathology laboratory
4. Provide the age, breed and sex of the cat and whether it has a microchip
5. Advise if you vaccinate cats into the subcutaneous cervical region (scruff), or other sites used more commonly now in the USA, such as the distal

Thank You

Yours sincerely

Mark Westman BVSc PhD MANZCVS



Figure 2: CT of an ISS(arrow) in a cat