



Improving Postoperative Comfort in Feline Spay Patients

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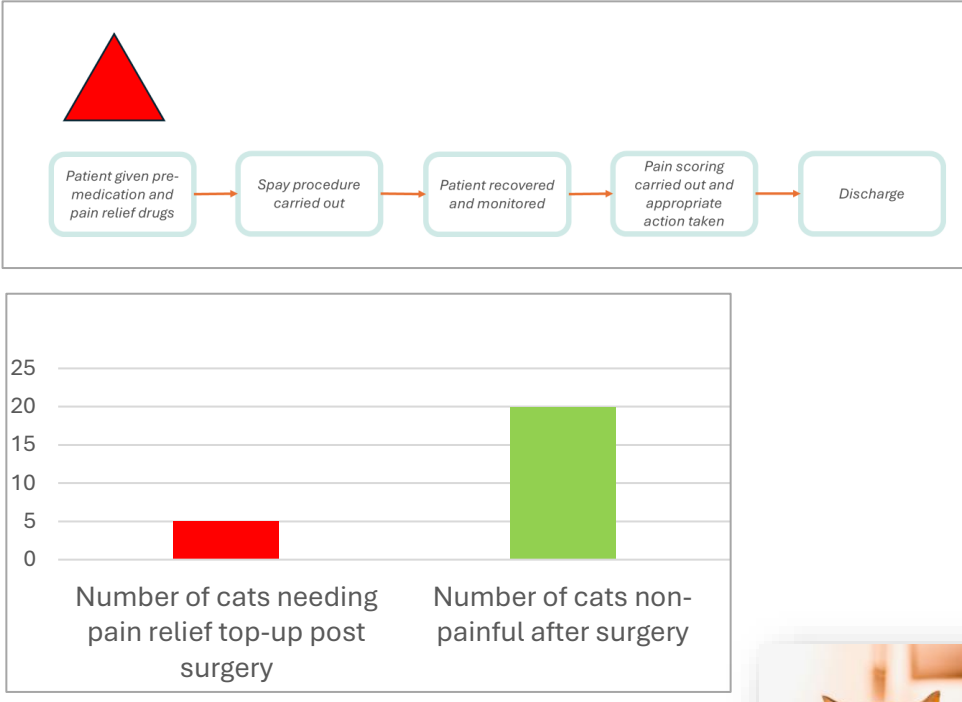
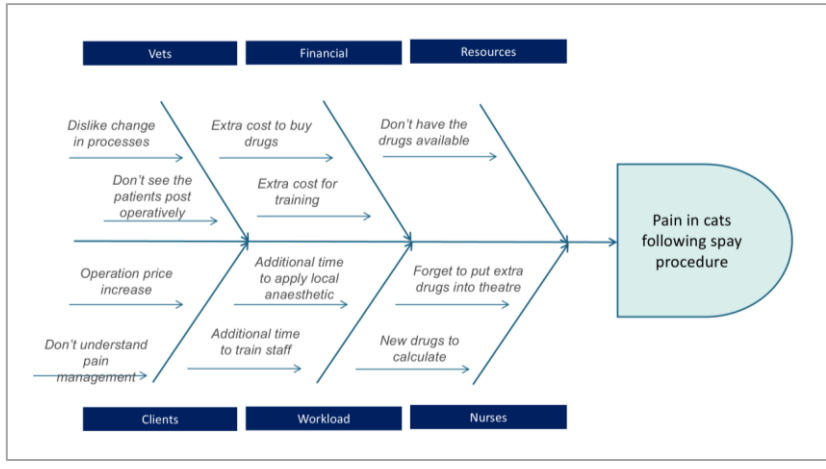


I often see cats in pain after cat spay procedures. This causes them physical discomfort, emotional distress and delayed healing. No-one wants to see an animal in pain after surgery.

BACKGROUND

- Despite it being routine surgery cats experience post-operative pain after spay procedures due to tissue trauma and inflammation.
- Pain and emotional distress can negatively affect recovery, including delayed wound healing and reduced normal behaviours.
- The International Society of Feline Medicine (ISFM) recommends incorporating local anaesthetic techniques as part of multimodal analgesia to improve pain control and reduce reliance on systemic drugs alone.
- ISFM highlights that effective local anaesthetic use contributes to **improved feline welfare, reduced stress responses, and decreased need for rescue analgesia**, supporting better recovery quality after routine neutering procedures.

DIAGNOSTICS



AIM & MEASUREMENT DEFINITION

Aim: Within 4 months, I aim to reduce the number of cats undergoing spay procedures that require post-operative rescue analgesia prior to discharge

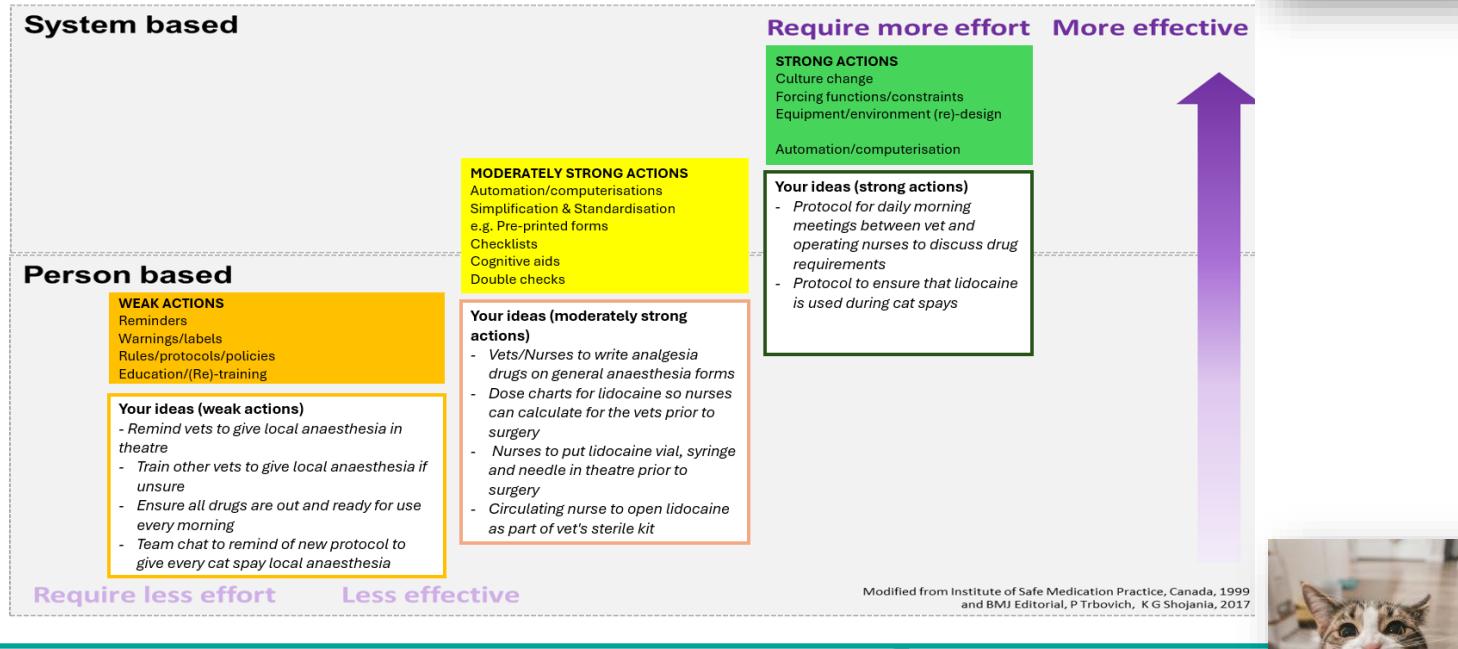
Chosen measure: Number of cats that require rescue analgesia post spay

Inclusions: Healthy female cats of any age and breed, cats undergoing elective spay operations, cats recovered and monitored in practice, cats receiving pain scoring assessments

Exclusions: Cats that had intra-operative complications, pregnant cats, cats that have pre-existing conditions, emergency/non-elective spays, cats that were discharged prior to pain scoring assessments

Sampling method and frequency: Collect retrospective data for baseline then capture data daily and plot on run chart to assess changes

CHANGE IDEAS



PDSA cycles

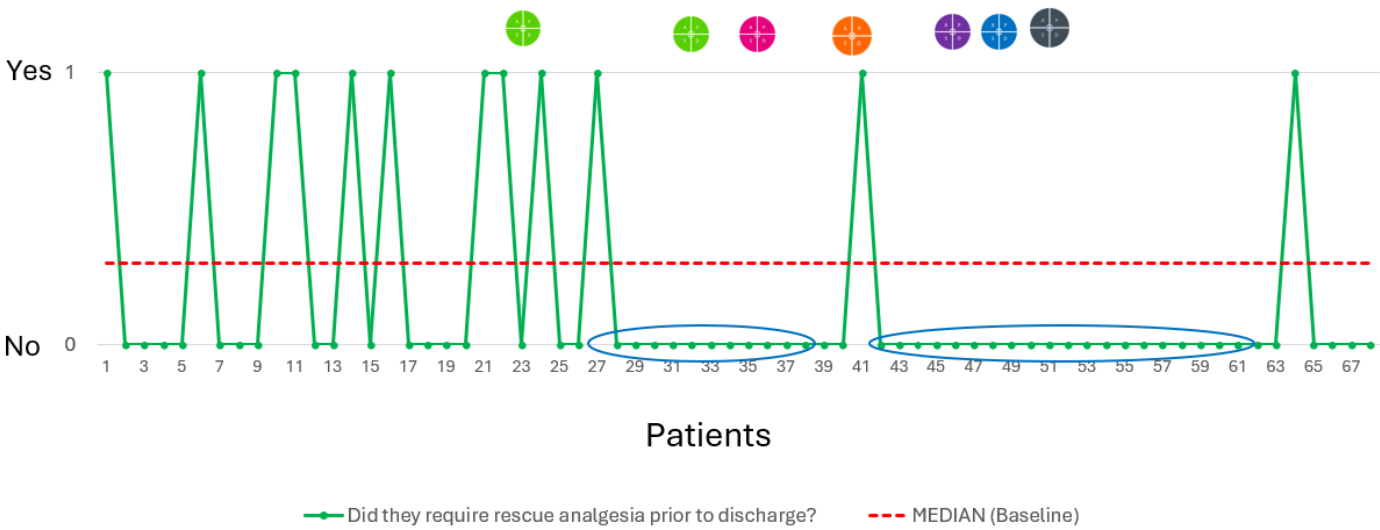
PDSA Test #	PLAN	Do	STUDY	ACT
1.1	Put lidocaine, syringe and needle in theatre to be used as local anaesthetic in cat spay procedures	06/04/2026 – Lidocaine placed on the trolley behind the nurse ready for use and out of sight of the vet. 3 x cat spay procedures were scheduled and lidocaine was forgotten in 2 out of the 3 procedures.	The lidocaine, a syringe and needle being out of sight of nurse and vet meant that it was often forgotten and not administered.	Adapt – Place lidocaine in a highly visible place so that it is more likely to be administered
1.2	Put lidocaine, syringe and needle in a visible place in theatre to be used as local anaesthetic in cat spay procedures	On 07/04/2026, when setting up theatre for cat spay procedures, nurses put lidocaine, syringe and needle on the surgeon's operating trolley in theatre ready for use. There were 2 cat spay procedures and lidocaine was used on both	Location of lidocaine on the vet's operating trolley increased usage.	Adopt – Nurses will adopt this idea for all cat spay procedures.
2.1	Operating nurse to remind veterinary surgeon to use lidocaine during cat spay procedures	10.04.2026 – The operating nurse forgot to remind the vet who also forgot so the lidocaine was not administered to the cat during the procedure	Relying on memory is unreliable and there must be a better prompt.	Abandon – Nurses/vets will not use memory Adapt – Nurses will write lidocaine on the general anaesthetic forms

PDSA Test #	PLAN	Do	STUDY	ACT
2.2	Nurses write down lidocaine on general anaesthetic form	15.04.2026 – Operating nurse wrote lidocaine on general anaesthetic form. The nurse was prompted to remind the vet, and lidocaine was administered in 2/2 cat spay procedures.	Visual prompt is more reliable than solely using memory.	Adopt – Nurses will continue to write lidocaine on general anaesthetic forms for cat spay procedures
3	Gather and present evidence to the team for using lidocaine during cat spay procedures	17.04.2026 – Evidence gathered and presented that 1 in 4 cats are experiencing pain post cat spay procedure. This made the vets and nurses more aware of the importance of using lidocaine during their procedures and all agreed that it was an area that they wanted to improve together.	Team engaged with QI project, very keen to see results and improve welfare.	Adopt – I will continue to present this evidence on a weekly basis to the team as I collect more data.
4	Highlight lidocaine on general anaesthetic form so it doesn't get missed when preparing drugs	20.04.2026 – The operating nurse highlighted lidocaine on the general anaesthetic form. The cat spay was administered lidocaine during the procedure.	This was a useful visual prompt however the team feedback was that it would not be viable long term. There is no colour printer, and the forms cannot be edited.	Abandon – Nurses will not highlight the lidocaine as this is not viable long-term. Adapt – Continue with PDSA 2.1 instead

PDSA Test #	PLAN	Do	STUDY	ACT
5.	Put out all drugs in the morning, including lidocaine, so they are visible and ready for procedures.	21.04.2026 – Nurse took out all drugs from the cupboard. Nurse setting up theatre put the lidocaine onto the vets operating trolley. The lidocaine was administered to the cat during the procedure.	Creating a routine of taking all drugs out increased the likelihood that lidocaine will be put into theatre.	Adopt – Nurses will get all drugs out at the same time each morning.
6.1	Morning huddle between operating vets and nurses to discuss each case and which drugs they would like for each procedure.	24.04.2026 – Operating vet was late and went straight into admitting patients so did not happen.	This is not always possible as it is very busy in the mornings and no time set aside	Again – Nurse and vet to try again on a different day to see if there is a different outcome
6.2	Morning huddle between operating vets and nurses to discuss each case and which drugs they would like for each procedure.	27.04.2026 – Operating nurse and vet had a pre-op chat and discussed drugs to be used for the scheduled cat spay procedure. The operating nurse wrote down the drugs on the general anaesthetic form. After admitting the patient, the vet changed their mind on which drugs they wanted to use.	The vet needs to examine and assess the animal before deciding and confirming which drugs they want to use. Writing down the drugs beforehand can get confusing if they change their mind.	Abandon – Continue with normal routine of discussing drug requirements after the patient has been admitted.

RUN CHART

Number of Cats Requiring Rescue Analgesia (February – May 2026)



CONCLUSIONS

- Based on the run chart, it is clear that I met my aim to “reduce the number of cats undergoing spay procedures that require post-operative analgesia prior to discharge.”
- By the end of the project, cats requiring post-operative pain relief had reduced from 3 in 10 to less than 1 in 10 cats.
- There is evidence of a statistically significant shift as there are >6 consecutive data points below the baseline median. This indicates improvement and a positive change in the process that has been sustained.
- From the small-scale tests of change, I learned that standardised and reliable approaches to peri-operative pain management were most effective.

REFLECTIONS & LEARNING

- The Model for Improvement taught me that change can be achieved through clear aims, regular measurement, and repeated small-scale testing.
- The PDSA cycle allowed me to decide which changes were successful and unsuccessful and then the run chart provided evidence of the progress to support whether small step testing was effective.
- I learned that improvement depends on team engagement and implementing changes into everyday practice. Changes to the system and not just individual behaviour is essential for success.
- Another challenge I faced was embedding these changes into routine practice so that they were seen as part of the normal workflow rather than additional tasks and work.

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