

## Quality Improvement Case Example: NOTAN – Notice to Anaesthetists

**Name of the initiative:** NOTAN - Notice to Anaesthetists  
**Initiative start date:** November 2021  
**Submitted by:** Matt Gurney, Clinical Director and Claire Woolford, RVN VTS

### Introduction

Anderson Moores Veterinary Specialists is a specialist-led referral centre in the South of England employing over 250 colleagues. We anaesthetise approximately 3500 dogs and cats a year. Our anaesthesia service consists of 3 EBVS/RCVS Specialists, 2 residency-trained anaesthetists, 2 residents, one veterinary technician specialist (VTS) (anaesthesia) plus a team of multidisciplinary veterinary nurses.

Week to week, we see a variety of changes in a large referral hospital – those may be new pieces of equipment or lack of equipment if something is away for repair, new protocols, new drugs, drugs shortages, different brands of drugs and new ways of working which could impact both the confidence of those undertaking anaesthesia and the safety of the patient.

NOTAN stands for notice to anaesthetists and is taken from the aviation industry. In aviation, NOTAM stands for Notice to Air Missions. NOTAMs are safety notices issued to pilots which should be checked at the flight planning stage. NOTAMs are used to highlight safety issues to pilots along their route or at airfields. NOTAMs are mostly checked electronically.

### Aims of the QI Initiative

The overall aim of the NOTAN system is to improve confidence in all members of the anaesthesia team – including anaesthetists, veterinary nurses, residents, and interns in the practice of anaesthesia in the hospital.

In a hospital of our size, it is a challenge to ensure everyone is always up to date. To attempt to resolve this we created NOTANs. A new set of NOTANs is published fortnightly. NOTANs are displayed in the anaesthesia induction area of the hospital and uploaded to the RVN’s MS Teams channel. Each set of NOTANs is a single side of A4 paper.

Each set of NOTANs is written by our anaesthesia RVN following consultation with the anaesthesia team at our monthly meetings. These could be the result of any recent change or following review of VetSafe reports<sup>1</sup>.

### Actions

Prior to implementing this system, a survey was sent to RVN’s and interns using MS Forms. There were 19 responses. The questions asked were:

Question	Answer
How confident are you that you have the latest information relating to current anaesthetic practice, protocols, and equipment availability before starting an anaesthetic? [Scale 1-5] (1 being low and 5 being high)	<b>Mean score = 3.68</b>

Would you support the use of a system to provide notice of changes to anaesthetic practices, procedures, and equipment? [Option yes or no]	<b>Yes = 19</b> <b>No = 0</b>
Should such a system be paper based or electronic?	<b>Paper based = 0</b> <b>Electronic = 8</b> <b>Both = 11</b>
When would you check for updates?	<b>At the start of my shift = 4</b> <b>Once assigned a case = 5</b> <b>At induction = 0</b> <b>Once a week = 8</b> <b>I am unlikely to check = 2</b>
Would obtaining updates prior to an anaesthetic increase your confidence with anaesthesia?	<b>Yes = 15</b> <b>No = 0</b> <b>Maybe = 4</b>

This survey demonstrated a clear demand for such an initiative.

## Results

One month after implementing this system the following questions were sent to the VN and intern teams. There were 15 responses.

Since the introduction of NOTANs, how confident are you that you have all the latest information regarding current anaesthetic practice, protocols, and equipment. [Scale 1-5] (1 being low and 5 being high)	<b>Mean score = 4.27</b>
Do NOTANs increase your confidence in anaesthesia?	<b>Yes = 5</b> <b>No = 1</b> <b>Maybe = 9</b>
Should NOTANs be introduced to other referral centers	<b>Yes = 10</b> <b>No = 0</b> <b>Maybe = 5</b>

These results document a positive benefit to the NOTAN system with an improvement in the mean scores for question 1 from 3.68 to 4.27.

The anaesthetist's all have greater confidence that anyone monitoring an anaesthetic is up to date on any recent changes.

## Example of a NOTAN

# NOTAN

ISSUED: MONDAY 25TH OCTOBER



One Masimo has gone away for repair. We only have one on site
Two Dopplers are away for repair
If you are unfamiliar with the new Cyclo-Flo APL valve please ask
Do not over-tighten the APL valves on the new Cyclo-Flo circles.
Do not use the Merlin ventilator with a Cyclo-Flo circle
Be aware that iodinated contrast can cause a sedated dog to vomit – have suction ready



## Impact of Intervention

Confidence in anaesthesia is key. This is relevant to both the anaesthetist designing the anaesthetic plan and the RVN or intern monitoring the anaesthetic. Within a large hospital setting, change is constant and keeping all team members up to date with such changes is a real challenge. After a patient safety incident, it is not uncommon to hear 'I didn't know we had started doing that/I didn't know anything had changed/no-one told me' as some of the human and communication factors relevant to such incidents.

In response to patient safety events, we analyse all factors contributing to that event. These are reported in VetSafe, analysed by our VetSafe champions, and discussed at our 6 weekly morbidity and mortality rounds where anyone in the practice can attend and contribute. NOTANs represents one way to disseminate clinical updates relevant to anaesthesia following these events.

NOTANs represent a tool to effectively manage change in a clinical setting, with the aim of reducing systems and human factors as a cause of error.

**Potential impact from implementation of NOTANs:**

Use of technology – NOTANs would work well within an app

Better clinical outcomes – avoidance of patient harm

Greater engagement in the subject area – RVN's are always keen to learn and widening awareness to the importance of patient safety and where potential errors could arise is a valuable area to raise awareness.

Increased chance that QI will be embedded as part of a structured approach to animal care – our implementation of checklists is now such a natural process that implementing the NOTANs system is an easily adopted extension of that. We have a brilliant engagement platform that we could extend to other ideas.

This system is simple to implement and has potential to roll out to any veterinary practice. Updates are specific to the practice and the team and so highly relevant. NOTANs are a form of communication designed to improve confidence in anaesthesia and improve patient safety.

<sup>1</sup> *VetSafe* [VDS Insurance] [online]. Available from: <https://www.vds-vetsafe.co.uk/> [Registration required]

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