

Clinical Audit Case Example: Aural cytology and antibiotic use audit

Section A: The eight stages of a clinical audit

Clinical audit is a process for monitoring standards of clinical care to see if it is being carried out in the best way possible, known as best practice.

Clinical audit can be described as a systematic cycle. It involves measuring care against specific criteria, taking action to improve it, if necessary, and monitoring the process to sustain improvement. As the process continues, an even higher level of quality is achieved.

What the clinical audit process is used for

A clinical audit is a measurement process, a starting point for implementing change. It is not a one-off task, but one that is repeated regularly to ensure on-going engagement and a high-standard of care.

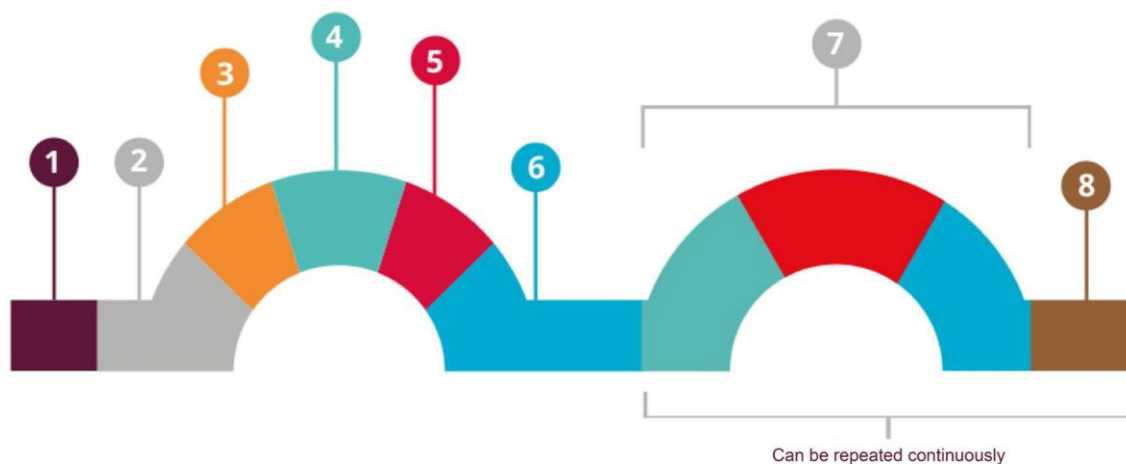
It is used:

- ⇒ To check that clinical care meets defined quality standards.
- ⇒ To monitor the changes made to ensure that they are bringing about improvements and to address any shortfalls.

A clinical audit ensures concordance with specific clinical standards and best practice, driving improvements in clinical care. It is the core activity in the implementation of quality improvement.

A clinical audit may be needed because other processes point to areas of concern that require more detailed investigation.

A clinical audit facilitates a detailed collection of data for a robust and repeatable recollection of data at a later stage. This is indicated on the diagram where in the 2nd process we can see steps 4, 5 and 6 repeated. The next page will take you through the steps the practice took to put this into practise.



1. Choose a topic relevant to your practice

The topic should be amenable to measurement, commonly encountered and with room for improvement.

In this case, the Head RVN wanted to identify if aural cytology was being completed for all ear exams and before and after the prescribing of antibiotics.

2. Selection of criteria

Criteria should be easily understood and measured.

Practices would be scored a % out of 200%, based on whether they took aural swabs for every patient, and took them pre- and post-treatment.

3. Set a target

Targets should be set using available evidence and agreeing best practice. The first audit will often be an information-gathering exercise; however, targets should be discussed and set.

This audit was performed to obtain information on the current standard (benchmark) of the practice. Once this was obtained, the aim was to improve this so that every patient possible was having aural swabs. Patients that were 'CARE' or owners that declined the treatment were excluded.

4. Collect data

Identify who needs to collect what data, in what form and how.

The PMS system was checked to obtain results from consultations.

5. Analyse

Was the standard met? Compare the data with the agreed target and/or benchmarked data if it is available. Note any reasons why targets were not met. These may be varying reasons and can take discussion from the entire team to identify.

The initial audit results showed that none of the practices were routinely performing aural swabs.

6. Implement change

What change or intervention will assist in the target being met? Develop an action plan: what has to be done, how and when? Set a time to re-audit.

It was identified that many of the team did not have the confidence to analyse the results. 1:1 training meetings were set up to build this confidence with both the veterinary surgeons and nurses.

7. Re-audit

Repeat steps 4 and 5 to see if changes in step 6 made a difference. If no beneficial change has been observed then implement a new change and repeat the cycle. This cycle can be repeated continuously if needed. Even if the target is not met, the result can be compared with the previous results to see if there is an improvement.

The audit was repeated and showed that aural cytology had increased by 60% across the practices.

8. Review and reflect

Share your findings and compare your data with other relevant results. This can help to improve compliance.

The findings are reported to the team on a regular basis.

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Section B: Clinical audit in practice, using aural cytology and antibiotic use as an example

Name of initiative: Aural cytology and antibiotic use
Initiative start date: November 2018
Submitted by: Meghan Conroy HRVN

Introduction

My quality improvement (QI) journey started in early 2018 when I attended a talk, hosted by RCVS Knowledge, by the then CVS Head of Clinical Governance Richard Killen. It was fascinating to think of a general practice like mine collecting and collating data that could make huge improvements to patient and client care. I came to learn that this is what the veterinary world needed; for professionals on the ground to start a body of evidence to raise our standards.

In my role as Head of QI for our five practices in and around Southampton, I wanted to raise awareness of quality improvement. To start with, I conducted simple clinical audits so that everyone in the team could understand and build confidence in what I was trying to achieve. This, in turn, would encourage all team members to participate and look at the results in a positive light. My main aim was to improve our patient care, which would improve our client care and, therefore, increase revenue which could be put back into the practice. The example of QI I want to use is my internal audit on aural cytology versus antibiotic use in four of my five practices. My fifth practice was excluded as it was a new acquisition, and I could not obtain the data.

Aims

I wanted to see how often our registered veterinary surgeons were obtaining in-house aural swabs to perform microscopy before deciding if antibiotics were indicated. I found this audit pertinent due to antibiotic resistance becoming common in both the human and veterinary world. The veterinary world has come far with its reduction of antibiotic prophylaxis but there are still improvements to be made and I felt this was one of them.

Actions

My QI initiative took the form of a clinical audit and each practice was given a percentage out of 200%. To obtain 100% the practice needed to be taking aural swabs at the first sign of ear disease for every patient. To achieve 200% they needed to be taking pre-and-post treatment swabs to ensure treatment had been successful. Most cases indicated treatment but there were a few that didn't. For example, some cases did not require a second swab, as treatment wasn't indicated as necessary after the first cytology sample. Those that were considered a 'CARE' were eliminated from the audit, as if we were able to, we may have taken a sample. My data was collected through my practice management system. I searched for all consultations that had been charged for aural cytology in-house. This information was gathered from a set time frame of 1-2 months depending on caseload. I then searched for the aural antibiotics used in-house, to compare how many we were prescribing without aural cytology being done first. Six months later I then repeated this process to see if after training, clinical discussion and awareness of this audit, these figures improved. I looked through all of the patients' records that were used in the audit to see if clients were given the option of aural cytology but refused due to financial restraints as these patients would also be excluded from the audit.

I looked for guidance and resources from RCVS Knowledge, BSAVA and other medicine sites such as the Dechra academy.

Results

My initial findings were that one of our practices was taking swabs before treatment was started but many of the others weren't. None of the practices were routinely re-swabbing to ensure the treatment had worked.

After the initial audit, many of our vets and nurses were shocked to see how little we were doing. Others were not as surprised because they acknowledged that they lacked the confidence in cytology to carry out these tasks. This highlighted a skills gap that we needed to address with appropriate training. The extra training was provided internally by those veterinary surgeons who were confident in using the microscope and performing cytology, in the form of 1:1 meetings and a group vet meeting. The training was also provided to the nursing team, to help collect and analyse the samples, therefore, improving our nursing skillset too, using the skills we learnt at college every day to help the RVS make their diagnosis. After the re-audit six months later, we saw a marked improvement in our results.

Impact of intervention

There have been many benefits to the QI implementation in our practices and only a few negatives. The negatives mainly came from historic caution and lack of trust in quality improvement ideas, arising from fears that this may lead to a blame culture and cause disruption in clinical decisions. Thankfully, once the team understood more about the QI initiatives and the positives that come from this, they were fully on board. Even those who at first were sceptical couldn't disagree that using evidence-based medicine was vital for the veterinary profession moving forward. By implementing QI in-house, we could start slowly and build on a body of evidence which is crucial for our patients and clients.

The improvement in ear cytology was clear, after six months of advocating for aural cytology, we saw a 60% increase. This meant that the total 180% of patients were receiving aural cytology pre- and post-treatment and that we as a practice were ensuring those patients were fully treated with the right antibiotic, and that further treatment was not indicated. This means a huge improvement to patient welfare, as those patients did not have to suffer for longer than necessary as they were given the correct treatment course the first time around. We also increased our revenue for the practice, as we were not sending so many of our samples to the laboratory for external validation. Our clients were charged less by us than an external laboratory, so this meant higher levels of client satisfaction and less waiting times for answers as we were able to give a diagnosis at the point of initial consultation. It also showed that some ear disease was not an infection but inflammation, so antimicrobials were not prescribed, meaning less antibiotic resistance in the future. Since our team saw these benefits our aural cytology, it has been taken up enthusiastically and both veterinary surgeon and nurse have relished in analysing the samples. This has even crossed over to other forms of cytology such as fine-needle aspirates of lumps, vaginal swabs and haematology.



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