

Clinical Audit Case Example: Peri-operative hypothermia audit by Holly Warrilow

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

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.

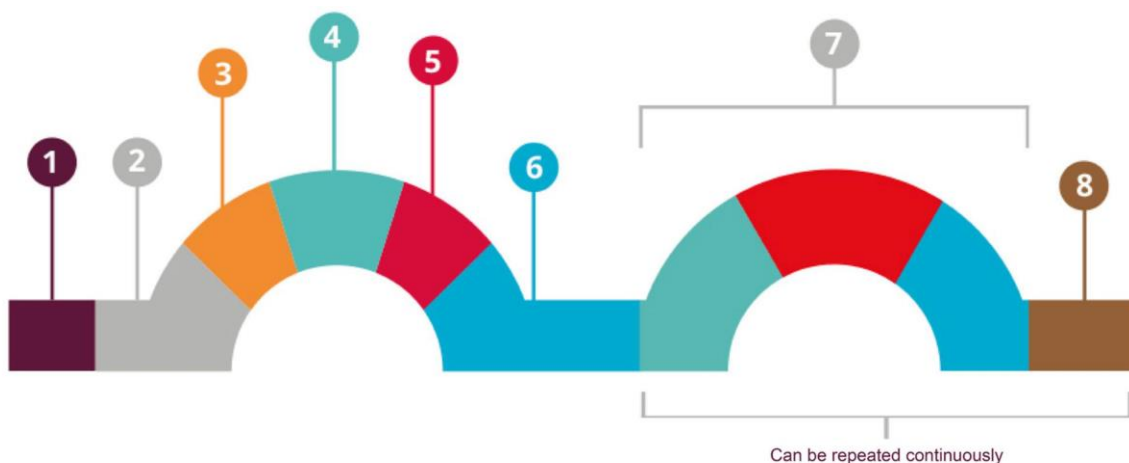
It is used:

- ⇒ 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 in 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 practice.



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 practice team had noticed that some of the patient's peri-operative temperatures were not being recorded.

2. Selection of criteria

Criteria should be easily understood and measured.

Peri-operative temperatures were to be taken on every patient that was recovering from a procedure.

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 we had the results we aimed to reduce the number of patients that were hypothermic.

4. Collect data

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

Post-op temperatures were recorded on the general anaesthetic sheet.

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 several patients were hypothermic post-operatively.

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.

New guidelines were introduced, about when temperatures should be taken and recorded. A specific in-patient nurse was allocated to provide continuity of care.

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 after 11 days and there was a 12.23% reduction in patients with hypothermia.

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 regularly.

Clinical Audit Case Example: Hypothermia audit by Holly Warrilow

Section B: Clinical audit in practice, using hypothermia as an example

Name of initiative: Post-operative temperature audit
Initiative start date: March 2019
Submitted by: Holly Warrilow RVN



Introduction

White Cross Vets has been providing care for pets for more than 80 years, combining a heritage of top-quality pet care with the latest industry techniques and technology.

Aims

I aimed to explore improvements that could be made to improve the safety of anaesthetised and sedated patients. I highlighted an area of improvement within the practice by auditing temperatures of anaesthetised and sedated patients for the whole of March 2019; to hopefully decrease the percentage of patients reaching hypothermia, during their procedure as well as post-operatively. Despite temperatures being monitored in the practice on a regular basis, there was minimal data that had been recorded. I wanted to make sure that written recordings were being made so that hypothermia could be noticed more easily in our patients and therefore, protocols rectified to improve the patient temperatures. Low patient temperatures increase anaesthetic and sedative risks; therefore, should be avoided at all costs.

Actions

I performed an initial audit, to show that hypothermia was an area that required improvement. I looked at one in-patient per day over the course of a month, to see what temperatures had been recorded; in this case minimal recordings had been logged.

To make sure that temperatures were being recorded more regularly, I rectified the GA chart to include the recordings of patient temperatures at three stages of the procedure:

- before pre-med,
- after pre-med and
- after induction.

I also created a post-op recovery chart to ensure that post-operative temperatures were also being recorded; this form also included the stages of hypothermia as reference.

By having written recordings, it has allowed any trends to be easily noticed and has given the ability to quickly determine the drop in a patient's temperature; allowing us to rectify this as quickly as possible to improve patient care. It also allows a practice to highlight whether improvements are needed and whether new protocols are required. When looking for guidance to design the interventions provided, I referred to the RCVS guidelines which states: 'Anaesthetic charts must be filled in for each patient (except in emergency or very short procedures, e.g. cat castrate). These charts must form part of the clinical records' and 'the charts must include: Vital signs. This backed up my reason for an area of improvement in patient temperature recording.

Results

After implementing the GA chart and post-op charts, I performed a further audit of the patient temperatures.

Over 11 days, 28.5% of patient temperatures recorded reached moderate hypothermia (34-36.5°C). I then set out to improve this result. This result was shown to the rest of the clinical team and we had a discussion to highlight the importance of improving this result and how we were going to go about it. I implemented a protocol of making sure each patient has at least one warmed wheat bag during their procedure and post-operatively was made a MUST; and to also implement all of our skills, especially as nurses, to ensure patients were being kept as warm as possible.

Going forward from the improvements made, I produced a further audit over another 11 days. The result of this audit showed 23.23% of patients reached hypothermia and only 16.27% reached moderate hypothermia this time; a 12.23% improvement since the last audit. I was very pleased with this lower result and wanted to maintain this going forward. I implemented a 'New Clinical Guideline: 'Protocol for Hypothermia Prevention', which states all methods to be used in order to maintain this great improvement made in practice.

Impact of intervention

The quality improvement method for reducing hypothermia in the practice has improved the way the patients are monitored; especially post-operatively. My hypothermia results showed the importance of recordings. To help make sure that patient temperatures and in-patient vitals are being recorded as a practice, we now have an In-Patient Nurse assigned daily to give in-patient care continuity. The In-Patient Nurse will get to know each patient more in-depth, with the ability to spot any changes/problems with patients quicker than if several nurses were monitoring them throughout the day. It has made the roles of nurses more effective because they know exactly who is dealing with in-patients and patient handover has been made to be much more in-depth; meaning the quality of patient care has improved.

There has not been any negative impact from my hypothermia auditing and the improvements made.

My hypothermia audit is a project I used to help achieve the IVC Patient Safety Award. This award can be advertised to clients to show that we are always striving to improve the safety of our patients in practice and owners can have peace of mind that their pet's safety is a top priority.



This work is licensed under a [Creative Commons Attribution 4.0 International License](https://creativecommons.org/licenses/by/4.0/). Feel free to adapt and share this document with acknowledgment to RCVS Knowledge and the case study author, Holly Warrilow. This information is provided for use for educational purposes. We do not warrant that information we provide will meet animal health or medical requirements.

Interested in submitting your own case example? Email us at ebvm@rcvsknowledge.org.