Example of how to find the evidence you need to develop a practice guideline.

This document will help you develop an evidence-based guideline for use in your practice. Remember a guideline is for *guidance only* and should be applied in individual circumstances in conjunction with your clinical expertise, patient circumstances and owners' wishes.

Step 1: Decide what the guideline will address

Specify the subject and scope of the guideline.

At this stage you may find published review articles useful to help you work out what you want to cover in your guideline and the specific questions you will need to research in the development of your guideline.

Subject– Hypertension (high blood pressure) in the cat

Scope – Diagnosis and management of (primary and secondary) hypertension in the cat

Who is the guideline relevant to?

Ensure all the members of the team who may use the guideline are involved and encouraged to provide input in the process of developing the guideline.

☐ **Whole team** ☑ **Vets** ☑ **Nurses** ☐ **Reception** ☐ **Support staff**

Step 2: Allocate team members to collect and review the evidence

At this stage it is important specify:

1. The questions you need to research,
2. the sources you will search,
3. the inclusion and exclusion criteria
4. and the appraisal tools you will use

Some of the questions you could research for your guidelines are:

- Which cats should have blood pressure measurement?
- How should we measure blood pressure?
- What is the criteria for diagnosing hypertension in the cat?
- How should high blood pressure be managed?
- How often should high blood pressure be monitored?

At this stage you may prefer to start by looking for any relevant published guidelines or secondary sources of evidence, such as knowledge summaries or systematic reviews, before searching the primary literature e.g.

- ISFM (International Society of Feline Medicine) consensus guidelines on the diagnosis and management of hypertension in cats. [inFOCUS] [online] Available from:

https://www.infocusvj.org/isfm-consensus-guidelines-on-the-diagnosis-and-management-of-hypertension-in-cats/ [Accessed 10 June 2022]

- Acierno, M.J. et al. (2018) ACVIM consensus statement: Guidelines for the identification, evaluation, and management of systemic hypertension in dogs and cats. Journal of Veterinary Internal Medicine, 32 (6), pp. 1803-1822. https://doi.org/10.1111/jvim.15331
- Feline blood pressure measurement: when is it needed? [inFOCUS] [online] Available from: https://www.infocusvj.org/feline-blood-pressure-measurement-when-is-it-needed/ [Accessed 10 June 2022]

However, there are still likely to be some areas where you need to review the primary literature.

For example, you may wish to find up to date information on the methods of measuring blood pressure or compare the treatments available for hypertension in the cat. This can be made easier by structuring your question to help you find the information you need. One way to do this is to use a PICO question:

e.g., In cats with hypertension (Patient) does Amlodipine (Intervention) or Telmisartan (Comparator) lead to best control of blood pressure (Outcome).

Further advice on asking an answerable question and finding the best evidence to answer your question can be found on the RCVS Knowledge Evidence pages.

- EBVM Toolkit 1: Asking an answerable clinical question [RCVS Knowledge] [online] Available from: https://knowledge.rcvs.org.uk/document-library/ebvm-toolkit-1-asking-an-answerable-clinical-question/ [Accessed 10 June 2022]
- EBVM Toolkit 2: Finding the best available evidence [RCVS Knowledge] [online] Available from: https://knowledge.rcvs.org.uk/document-library/ebvm-toolkit-2-finding-the-best-available-evidence/ [Accessed 10 June 2022]

As there are guidelines available for this topic, published in 2017 and 2018 you may choose to only search for literature published since that date. You could also specify the methodology or minimum size of study you will consider.

A range of tools to help you appraise published papers are available in the:

- EBVM Toolkit [RCVS Knowledge] [online] Available from: https://knowledge.rcvs.org.uk/toolkit [Accessed 10 June 2022]

Step 3: Review and discuss the evidence

Although practice guidelines can take many forms it can be helpful if you write your guideline as a series of clear recommendations, proving just enough information to enable the users to understand the recommendations. You may wish to add in references for further information.

- Review and discuss the evidence with all the team members who will be involved in implementing and using the guideline.
- For each point that you want to cover in your guideline summarise the evidence and provide a clear recommendation about how this will be applied in practice.
- While it is important to keep the recommendations succinct, it is important to provide a brief explanation of the reason for the recommendation as this helps people understand why this recommendation has been made.
- It is helpful to record the evidence sources that you used for each point as this will help when reviewing the guidelines.

e.g. In all cats diagnosed with chronic kidney disease or hyperthyroidism, blood pressure measurement should be recommended as these diseases have been found to be associated with increased blood pressure and increase the risk of target organ damage [1]

Taylor, S.S. et al. (2017) ISFM Consensus guidelines on the diagnosis and management of hypertension in cats. *Journal of Feline Medicine and Surgery,* 19 (3), pp. 288-303. https://doi.org/10.1177/1098612X17693500

Step 4: Create your draft guideline

You are now ready to bring together your recommendations as a practice guideline.

When wording the recommendations in your practice guideline, it is important to consider the RCVS guidance to provide clients with a range of reasonable treatment options with associated fee estimates.

Remember that it may be necessary to adapt published evidence to comply with any local policies or regulations. It can also be helpful to include specific details of the products that are used in your practice. If these are likely to change frequently you may prefer to add this in an appendix, which can be updated more easily**.**

e.g. When hypertension is diagnosed, treatment options discussed with the owner should include whether tablets (Amodip- Amlodipine) or liquid (Semintra- Telmisartin) will be easier to administer.

At this point it is important that all relevant team members have an opportunity to review the recommendations to ensure that they are realistic and discuss any practical issues and training needs.

You may also wish to link you practice guidelines to related guidelines or protocols e.g.

- A practice guideline for the management of chronic kidney disease in the cat.
- A protocol for measurement and recording of blood pressure measurement in cats

Step 5: Review your draft guideline

The draft should be provided to the relevant team members who will use the guideline. They should be encouraged to provide feedback to identify any training needed to implement the guideline.

Step 6: Implement your guideline

Before implementing your guideline, consider any training that is needed - it is important to ensure that all team members not only understand the recommendations but also understand how to apply them in practice and can use all relevant equipment.

For this guideline you may wish to use some of the resources from ISFM to support your team

- International Society of Feline Medicine. Practical recommendations on the measurement of indirect blood pressure recommendations in cats. [online] Available from: https://icatcare.org/app/uploads/2020/05/ISFM-BP-recommendations.pdf [Accessed 10 June 2022]
- iCatCare. Blood pressure resources [YouTube] [online] Available from: https://www.youtube.com/user/iCatCare/search?query=blood%20pressure [Accessed 10 June 2022]

Step 7: Review the guideline

Active date: 23rd August 2022 (This is the date the guideline is implemented and becomes active)

Review date: 23rd February 2023 (This is a 6-month review to ensure the guideline remains relevant to your practice)

Document control: 23rd August 2023 (The guideline should be reviewed yearly to ensure it remains relevant and up to date with the current available evidence)

Clinical Audit: Having implemented your guideline a clinical audit can be a useful way of assessing both how well the guideline is being implemented (process audit) and the impact the guideline is having on the clinical care of patients (outcome audit). Further information on how to carry out a clinical audit in your practice can be found here:

Clinical audit [RCVS Knowledge] [online] Available from: https://knowledge.rcvs.org.uk/quality-improvement/tools-and-resources/clinical-audit/ [Accessed 10 June 2022]

Supporting information

You may find it helpful to provide links to the main references and other supporting materials you used to develop your guideline e.g.

- Skelding, A. and Valverde, A. (2020) Non-invasive blood pressure measurement in animals: part 1 - techniques for measurement and validation of non-invasive devices. *Canadian Veterinary Journal*, 61 (4), pp. 368-374.
- Skelding, A. and Valverde, A. (2020) Review of non–invasive blood pressure measurement in animals: part 2 - evaluation of the performance of non-invasive devices. *Canadian Veterinary Journal*, 61 (5), pp. 481-498.
- Caney, S. (2021) Feline blood pressure measurement: when is it needed? *Companion Animal,* 26 (11), pp. 222-228. https://doi.org/10.12968/coan.2021.0063
- Van Vertloo, L. R. (2021) Effects of waiting room and feline facial pheromone experience on blood pressure in cats. *Frontiers in Veterinary Science*, 8, no. 640751. https://doi.org/10.3389/fvets.2021.640751
- International Society of Feline Medicine. Practical recommendations on the measurement of indirect blood pressure recommendations in cats. [online] Available from: https://icatcare.org/app/uploads/2020/05/ISFM-BP-recommendations.pdf [Accessed 10 June 2022]
- iCatCare. [YouTube] [online] Available from: https://www.youtube.com/user/iCatCare/search [Accessed 10 June 2022]