



Quality Improvement

2022 Report





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Angela Rayner

CVS Director of Quality Improvement

If you would like to provide feedback on this year's QI Report, please email me at: angela.rayner@cvsvets.com

What ladders up to Quality Improvement is more than just the process of detecting and reducing the occurrence of errors or clinical audit. It is the holistic process that encompasses breaking new ground; prioritising areas for improvement, and creating a culture of learning and improvement where everybody can contribute. The literature on quality improvement is vast but certain themes consistently emerge about what contributes to the quality improvement process.

In this QI report we focus on:

- Breaking new ground with relevant and practical Research & Development that can ensure we provide and recommend the best possible care to animals
- Developing a culture where everybody can contribute- through our Equity, Diversity and Inclusion Programme
- Developing a learning environment – which supports learning, education and development and ensures we collaborate and share best practice.
- Empowering teams to make change- by improving processes and removing obstacles that get in the way of good veterinary care.
- Prioritising areas for improvement – identifying the ways in which our practices can improve and in this report we particularly look at our prioritisation of projects in small animal and nursing.
- Growing a culture of continuous improvement – supporting practice teams to make it easier to improve the care they provide including with better data. In this report we look at efforts to improve our use of antibiotics; the use of ongoing patient data in our referral hospitals; and the development of a QI worksteam in our farm practice.
- Meeting or exceeding standards and being open to third party scrutiny – by fully engaging with the RCVS Practice Standards Scheme

Finally, an organisation that is committed to quality improvement should be prepared to share its results, celebrate progress and recognise success in learning, which is what we aim to achieve with this report.

We thank the thousands of CVS colleagues whose dedication to providing the best care for animals has made all this possible.

Angela Rayner
CVS Director of Quality Improvement

Introduction from our Chief Veterinary Officer

In the veterinary profession it is easy to think that quality improvement is a synonym for audit and that clinical governance is just about M&M rounds! In truth, things are rather more complex but also much more exciting (I can feel your disbelief from here!) too. Quality improvement is something that takes place all around us; we are all involved whether we like it or not, albeit some are more active than passive contributors. It is also not necessarily true that those who take part actively are instantaneously “improvers” rather than “detractors”; intentions can be fabulous but, if we don’t create the effective environment for change, our fantastic concepts for QI projects can be predestined for disappointment, frustration and eventually risk disengagement from being an active contributor.

That is not to say that we shouldn’t have lofty targets, aim high, miss high and all that! To give us the best chance of effective and efficient quality improvement we need to help our teams to understand and embed the culture of QI so that we all understand how we fit in the ecosystem and the impact we can have whether we are an active or passive participant.

The progress made so far in developing the right environment for sustainable clinical improvement has been brilliant and I would like to take the time to thank all those who have contributed to the projects and initiatives detailed in this report; in particular Angela Rayner, our Director of Quality Improvement, who has been so instrumental in engaging our teams in change. Also all of our teams who have been recognised for their work in QI through the RCVS Knowledge QI awards. The great thing about QI is that it thrives on the principal of continuous improvement and I cannot wait to see what the next challenges are and how we can work to overcome them!

Paul Higgs
Chief Veterinary Officer



Paul Higgs

Chief Veterinary Officer

Breaking new ground in Research & Development

Our Quality Improvement Challenge

Research undertaken alongside and as part of quality improvement processes, is an essential part of driving change within veterinary healthcare and offers an important starting point for implementing improvements for patient care.

Across CVS, colleagues are actively engaged with clinical research aiming to generate new knowledge to benefit the animals under our care and contribute to changes in practice. Through research that furthers understanding, develops skills and stimulates improvement, we can help to drive the quality of care forward.

Our approach

Clinical research undertaken within CVS has already advanced our knowledge and provided further evidence into the most effective ways to prevent, diagnose, and treat diseases and conditions. We wanted to turbo charge this further and 2022 saw the launch of our Clinical Research Awards to support important projects.

We fund:

- Clinical veterinary research, including Quality Improvement projects, which aim to generate new knowledge that has a direct benefit to animals under veterinary care.
- Research that aims to generate further knowledge to support veterinary practice and veterinary professionals

The Programme

To date we are supporting 16 research projects- and we are making many more grants available this year. These awards facilitate colleagues to be able to undertake

high quality and impactful research, as well as to work collaboratively with universities and research institutes to continue to break new ground in veterinary care.

Outcome

Key research includes development of innovative surgical guides to support complex procedures, analysis of identified isolates and antimicrobial susceptibility of common bacterial infections and assessment of novel biomarkers for disease diagnosis.

Taking the first example, CVS' Highcroft Referrals site worked to develop and assess the design of a 3D printed guide to enable safer brain surgery for a challenging procedure in dogs with Cushing's disease. With surgery, the mass that often causes Cushing's is removed and this offers a cure. However, this advanced surgery is challenging because of the deep location of the gland underneath the brain. The study led to a guide that locks on the dog's molar teeth and is bespoke to each patient and is created for the patient based on their CT images. It offers a way to support surgeons undertaking this surgery more safely.

2022 saw the launch of our Clinical Research Awards. To date we are supporting 16 research projects.

Developing a culture where everybody can contribute

Our culture challenge:

We want to continue to develop a culture where all our teams feel psychological safety – in other words that they can express their ideas and concerns, ask for help, raise questions, and admit mistakes without fear.

Psychological safety contributes to quality improvement in a number of ways. It leads to team members feeling more engaged and motivated, because they feel that their perspectives will be listened to. It can lead to better decision-making, as people feel more comfortable voicing their opinions and concerns. It leads to continuous learning and improvement, as team members feel comfortable sharing their mistakes and learning from them. All these contribute to patient safety.

Our approach

Our approach is to develop an Equity, Diversity and Inclusion programme that enables all our colleagues to feel included and psychologically safe. It includes development opportunities for all and the empowerment of colleague groups to deal with obstacles. We survey our colleagues regularly about how included they feel.

The programme:

Nearly 250 learners have enrolled in our Equity, Diversity and Inclusion training course which raises awareness of bias and prejudice in the workplace and recommends actions to consciously improve.

Given the importance of psychological safety, we developed a course to give leaders practical knowledge and skills for creating a psychologically safe team environment.

By the end of December, over 260 leaders had completed the course with strong feedback on its positive impact in the workplace.

Colleague EDI Groups are empowered to contribute towards making our workplaces more equitable and amongst the improvements that came from these groups were:

- A focus on menopause including providing menstrual products in our sites free for our colleagues;
- A new informal mentoring scheme.

Outcome

We survey colleagues about whether they feel they can present themselves without fear of negative consequences positive responses from colleagues rose to 86% in December 2022 from 84% earlier in the year.

We also asked colleagues whether they feel equally included at work and 85% of our colleagues agreed by the end of 2022 (rising from 75%).



Empowering teams to make change - through talking about What Matters

Our empowerment challenge

In 2020 the British Veterinary Association published results that three quarters of survey respondents were “very” or “quite” concerned about stress and burnout in the profession. (BVA 2020)

The effects of high levels of stress and burnout affect the ability to provide good patient care as well as impacting on an individual’s quality of life.

As burnout is a characteristic of the workplace, we can make the greatest difference by ensuring our systems of work are serving us well.

We want to empower teams to make changes that will enable them to focus on what matters to them, by improving processes and removing obstacles that get in the way of good veterinary care.

Our approach

When researching methods to address burnout, we discovered the Institute for Healthcare Improvement’s (IHI) framework for improving joy in work.

The framework utilises the disciplines of quality improvement and human factors to provide powerful practical approaches to improvement by understanding and structuring improvements based on the effects of teamwork, tasks, equipment, workspace, culture and the organisation. It supports frontline teams with a theory and method of improvement to identify problems, and then test ideas for change to arrive at local solutions. (Hignett et al 2015). By empowering teams to improve their systems of care we start to remove the barriers to the whole team having more good days at work and avoiding burnout. (Perlo et al 2017)

The framework was first piloted in several CVS practices, when it was renamed, ‘What Matters to You’ as this resonated strongly with teams. Facilitators supported each of the teams and asked open questions, using the What Matters to You conversation guide to understand; ‘What matters to you in daily work?’, ‘What does a good day look like?’ and ‘What gets in the way of a good day?’. During the third question, participants were asked to focus on two or three main issues identified that get in the way of a good day and to consider what improvements they could make and then come up with a measurable plan.

Content analysis using a stepwise process identified common themes from our ‘What matters to you’ sessions. The aim of this analysis was to collate views from over 40 practices and identify common areas of

discussion. As with any Quality Improvement project, evaluating the data generated can inform areas for change and future improvement.

The outcome

As of December 2022, 85 equine and small animal practice teams have had a facilitated session. Learnings have been gathered and these include embedding this method into leadership training.

Common themes in a good day were that it was well planned out; involved interesting cases and good client relationships. Conversely, a less good day often involved negative interactions with colleagues and clients and administrative obstructions such as facilities staffing levels and poor diary management.

We collected data from 42 practices where 132 improvements were selected.

The most common improvements ideas focused around:

- **Management of facilities or equipment** (34 practices; 81.0%): Improvements included setting a process in place for the team to report missing or broken pieces of equipment, and setting up a colour coding system based on where in the practice equipment should be kept.
- **Staff communication** (29 practices; 69.0%): Improvements included the introduction of an end of day team debrief and a morning huddle and agreeing on a process for new starter inductions.
- **Client communication** (18 practices; 42.9%): Improvements included sharing of practice information for new clients, and processes to manage missed or late appointments.
- **Time and diary management** (18 practices; 42.9%): where ideas included developing a process for call triaging.



Becca Jones, Clinical Director at Tremain Veterinary Group in Oxfordshire said:

“The opportunity for everyone to have the time to freely express what stops them from having a good day has meant that we can address things head on rather than letting them fester.”

“It’s given us the opportunity to identify what things are out of our control and, if we can’t change them, we discuss tools that we can use to learn to accept and work around them. It has made me alter my leadership style, so instead of jumping straight in to fix things, I wait to see if the team can sort it themselves. We now have quarterly meetings to discuss what the team have planned or done to solve these problems. We then discuss new pebbles that have come up since the last meeting that they need help resolving.”

Developing a learning environment

Our learning challenge

Our aim is to develop a learning environment which supports learning, education and development and ensures we collaborate and share best practice.

Our approach

We do this through the development of the leading online learning portal in the profession called Knowledge Hub.

We also believe strongly in the need for hands-on training programmes that enhance and develop skills that improve patient care, clinical outcomes and improve the range of services our colleagues can offer.

This is supported by great facilities and equipment and this include state-of-the art teaching spaces.

Our programme

- CVS has invested for the last four years in a unique learning portal, Knowledge Hub, so that colleagues have access to the profession's best learning platform with a catalogue of over 450 courses, programmes and webinars. Designed for all job roles within the veterinary profession, it includes clinical courses for vets and veterinary nurses across all species – including small animal, equine, farm and exotics. It also includes programmes to support patient care assistants and front-of-house staff – covering topics such as customer care, dispensing medication and infection control. Courses in leadership and management, along with coaching and mentoring, are also available – to help support and develop leaders and mentors across the industry.

- We have invested in state of the art facilities including flexible wet lab teaching space where we run practical courses such as dentistry or surgery, upskilling our clinical teams in a safe environment and enables quality assurance to our high standard. For example, we use our wet lab training centre in Wetherby for graduate induction and run several new courses such as abdominal surgery and dermatology. These in-person practical courses, which replace online training, provide a much improved learning experience following Covid.
- We have also invested in our team of vets, nurses and learning designers who design the learning activities. Our industry leading webinar series and eLearning packages are developed by the many specialists from our referral hospitals who cover all veterinary disciplines.

Outcome - Client Care

We launched the Level 4 Certificate in Client Care on National Receptionists Day to ensure the best care is offered to clients. The blended course delivers interactive online content combined with live sessions and online forums to encourage social learning, sharing of best practice.



It includes topics such as bereavement support. 30 receptionists joined the first cohort of the course in June, and another 30 started the course in September with strong feedback so far.

Outcome – Emergency Care

We developed a comprehensive training programme ECCelerate designed to help any CVS vet develop their confidence and competence to respond to emergency and critical care cases.

The training programme will ensure vets deliver the best possible outcomes for every emergency case that they see, whether the case presents at 2pm or 2am. The aim is that colleagues will be confident enough to deliver great care to emergency cases in a real-life environment with the equipment, and medication that they have available.

The 18-24 month programme was developed by CVS' out-of-hours and LED teams, as well as vets and nurses on the front line of emergency care. It includes five days of practical skills training and hundreds of hours of online resource. Monthly topics and discussion forums are also led and delivered by CVS vet and nurse trainers.

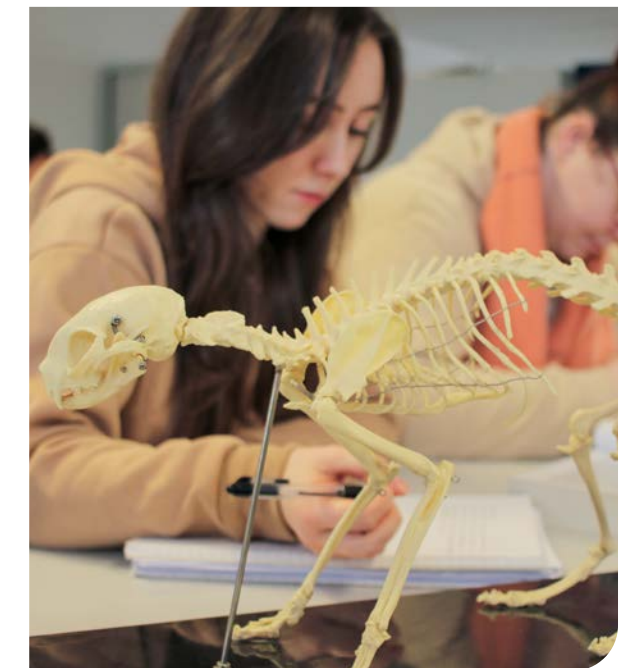


Outcome - Nursing Professional Development

Our learning aims to provide nurses Registered Veterinary Nurses (RVNs) with the confidence and competence to take on all clinical tasks that they are legally permitted to do. Making use of our wet lab, our nurses are trained to develop their practical skills through diagnostic imaging, dentistry, and surgery. They also run their own clinics for patients with chronic conditions such as diabetes, our geriatric patients, or those who need a little help with their weight management. The knowledge base for managing these clinics is not covered in typical nursing education and therefore we deliver this internally through the CPD we offer.

At the close of 2022, over 40% of our RVN had embarked on clinical skills utilisation training.

We will continue to offer more stretching development opportunities and our own Chester Veterinary Training Centre (CTVC) launches in 2023 a new Level 5 Diploma in Advanced Veterinary Nursing.



Prioritising areas for improvement... in Small Animal Practice

Our prioritisation challenge

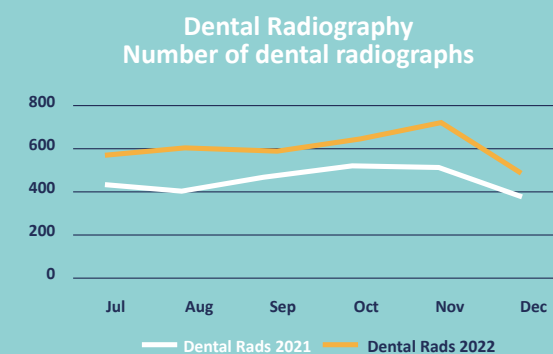
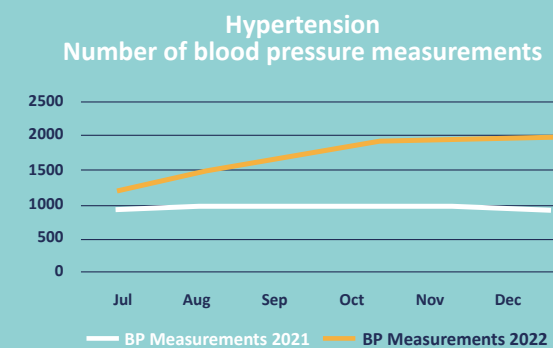
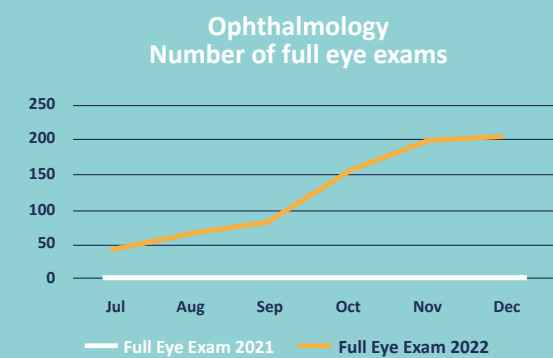
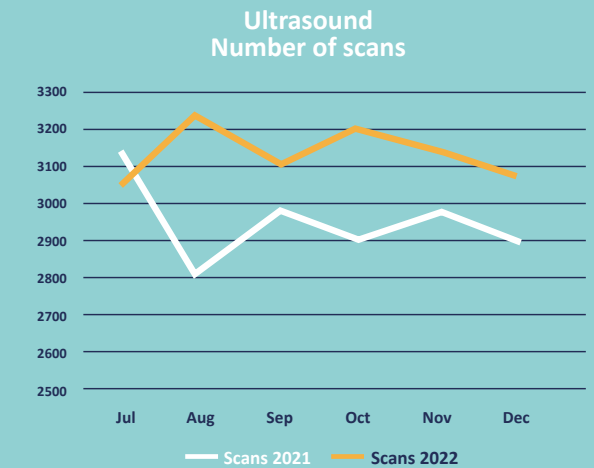
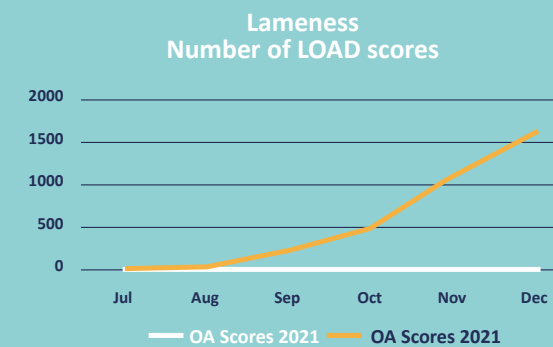
To achieve this, we looked carefully at requests for support from practices. These showed some clear areas where our clinicians were trying to improve. We also used data from across CVS to identify areas of good practice and opportunities for learning. These identified nine areas of improvement.

We launched our nine Clinical Quality Improvement Projects on 1st July 2022 and every practice was able to choose at least one from:

- Dental Radiography – to increase the number of patients that received dental radiographs as part of their dental procedure to improve patient outcomes
- Ear Cytology – to increase the percentage of our ear consultations where an ear cytology procedure is performed to support appropriate use of antimicrobials..
- Ophthalmology – to increase the number of eye consultations receiving a full eye examination (STT, IOP and Fluorescein test) to increase the chance of earlier diagnosis of eye conditions
- Radiology and Radiography – to reduce the number of single X-ray view studies, as it is widely accepted that orthogonal views are required for the best chance of an accurate diagnosis.
- Ultrasound – We aimed to increase the confidence of practitioners to carry out a full abdominal ultrasound examination to allow them to reach a more accurate diagnosis without referral and enhance their professional development.
- Endoscopy and Endosurgery –to increase the confidence of practitioners to carry out endoscopy in their own practices enabling them to reach a diagnosis without referral.
- Hypertension – to increase the number of cats over the age of 7 years that have their blood pressure measured each year leading to early diagnosis of hypertension
- Lameness – We aimed to increase the number of patients receiving a LOAD or Feline OA score and improve repeat LOAD or Feline OA scoring to improve the diagnosis and management of osteoarthritis in dogs and cats.
- Fine Needle Aspirate (FNA) – We aimed to increase the number of patients presenting with mass lesions that underwent FNA sampling, as characterisation of the lesion present is crucial to achieving best treatment outcomes.

Practice teams identified project leads, project sidekicks and worked closely with their Hub Clinical Leads to determine their goals and action plan to overcome barriers. They were able to use supplied driver diagrams, a tool that can be used to help plan improvement project activities, to identify areas of learning or barriers to change, then work through Plan-Do-Study-Act (PDSA) cycles to make constant improvements to their processes.

The Outcome



The increase in numbers of clinical procedures performed and shown in these graphs is a result of this approach to removing barriers to better clinical care.

In particular, the improvements in blood pressure measurement in cats over the age of 7 and LOAD score use in dogs to monitor disease progression are an outstanding example of how this QI approach can improve outcomes.

Moving forward the clinical projects will continue to evolve. The library of projects available for selection next year will be expanded.

Those practices who have started projects but not reached their desired goals in this first year will be encouraged and supported to continue their improvement, whilst adding an additional area of interest in the second round of project choices.

Prioritising Areas for Improvement - Nurse utilisation in small animal primary care practice.

Our challenge:

Nurses are vital to providing excellent patient care. Upskilling and then advocating for the nurse's involvement in schedule 3 procedures, including minor surgery, supports the delivery of improved patient care and provides nurses with more rewarding careers. We wanted to prioritise the most important areas for improving the utilisation of our nursing teams both inside the consulting room and with schedule 3 delegated surgical procedures.

Our approach for nurse consultations:

Data collected via practice management systems shows that in December 2021 most of our practices were not achieving our target. For small animal practices, our aim is to achieve nurse utilisation of 90% or above. In 2021, we focused on limiting factors, such as:

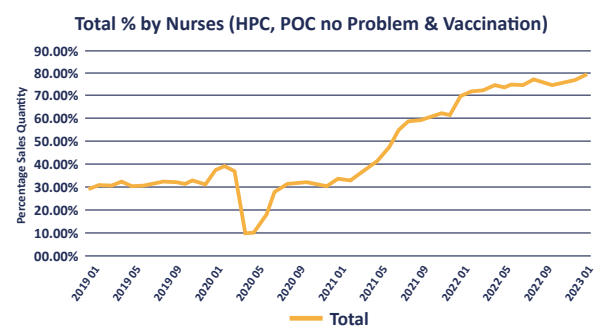
- Recruitment – can they employ an RVN?
- Confidence to delegate on Schedule 3 from vets to nurses.
- Nurse confidence to undertake these tasks.
- Facility restrictions – do they have a consulting room for nurse consults?
- Practice culture – is there a culture where professional development is valued?

The results:

In 2021 we focused on nurse consultations; checks for Healthy Pet Club (HPC) our preventative health care scheme, second and third vaccinations and postoperative checks.

In 2022 we expanded the measurement to include a wider range of nurse consultations. (Figure 1)

By December 2022 61% of our sites had achieved the target of 9-out-of-10 nurse appropriate consults being undertaken by RVNs.



Selina Williams is the Head nurse at Bennett-Williams in Gwynedd said:
"We have gone from a restricted offering of nurse consults for 1 hour a day to achieving a much greater breadth of consults such as weight clinics, fear free consults, 2nd vaccines, post-operative checks, dental checks & general health checks. We continue to learn new skills and look at expanding our nurse led clinics to include senior clinics, diabetic clinics and blood pressure clinics to name a few."

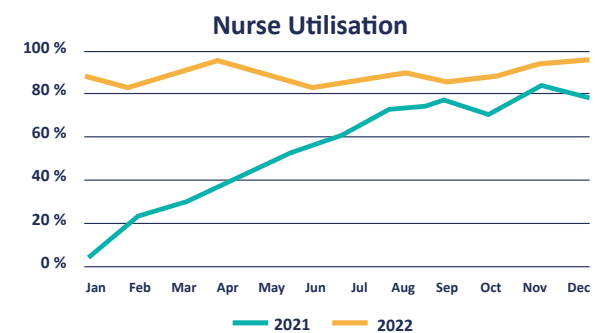


Figure 2: Percentage of nurse utilisation at Bennett Williams

Our approach to improving the utilisation of nurses in surgical procedures

Schedule 3 surgical procedures could include: stitch ups, dental scale and polish, radiography, minor benign skin mass removals, tail and toe amputations, and aural hematomas.

The upskilling of our nurses in schedule 3 surgical procedures required a collaborative approach across our divisions. Our LED team created a schedule 3 surgical nursing course, which consisted of a blended learning approach with a practical wet lab training day. A key element in the process are the vets who pledged to support their nurses to achieve this work within their practice. We published guidelines to provide clarity and reassurance around safe and effective delegation under schedule 3.

The outcome:

233 RVNs have completed the course.

We recognise that not all practices are able to fully accommodate a nurse led theatre stream. However, we aspire to normalising the utilisation of our nurses in schedule 3 minor surgery within the context of the most appropriate care for the individual patient. We will continue to offer support and training to those who are ready to take the next step in these post day one competencies and look forward to celebrating their success.

Caitlin Rowe, a veterinary surgeon in Norfolk said:

"It frees up our time, as vets, to see other cases knowing that the nurses are providing as much care, if not more, for the cases they can see under the schedule, such as skin work ups or lump removals."

Amy Bush RVN, said:

"All of our registered veterinary nurses and students have really thrown themselves into a variety of schedule 3 procedures such as surgery and diagnostics. It brings such value to our role as RVNs and allows us to feel appreciated as the professionals we are."



Growing a culture of continuous improvement- Antimicrobial stewardship

Promoting appropriate use of Highest Priority Critically Important Antibiotics

Our stewardship challenge:

Growing a culture of continuous improvement involves supporting practice teams to make it easier to improve the care they provide. One way we accomplish this is by providing access to better data.

The battle against Antimicrobial Resistance (AMR) is an important area for continuous improvement. Misuse and overuse of antimicrobials are the main drivers in the development of drug-resistant pathogens. The inappropriate disposal of antimicrobials also risks environmental contamination which can contribute to AMR. We take our responsibilities seriously and want to grow a culture that is focused on appropriate prescribing and disposal in our companion animal practices.

Our approach

Our approach was to focus on Highest Priority Critically Important Antibiotics (HPCIA), as these are most important to human health. There are times when prescribing a HPCIA is appropriate, for example when a diagnostic tool such as cytology or culture and sensitivity testing guides our use; therefore use will likely never reach zero. Prescribing data is delivered to practices via a digital dashboard that is updated monthly. This provides an opportunity for the team to reflect on their decision-making, monitor trends and measure progress.

The outcome:

Our initial intervention was in July 2021, and included implementation of the digital dashboard, updating group-wide prescribing guidelines, and encouraging team reflection.

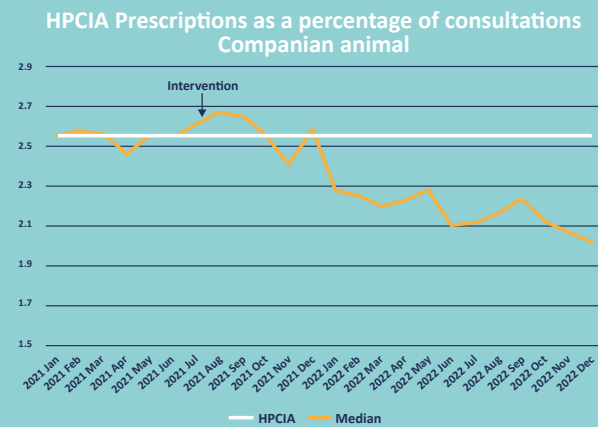


Figure 1: HPCIA prescriptions shown as a percentage of consultations, in general practice and referral companion animal practices.

Since the beginning of the year, we have seen a consistent decrease of 20% overall in prescriptions of HPCIA's. The dashboard has encouraged practices to pursue their own improvement projects.

Case study – White Lodge Veterinary Surgery team



Our aim was to change the prescribing culture across the practice for cat bite abscesses (CBAs), adopting a 'case-by-case' approach, and to give confidence to our veterinary peers to use up-to-date clinical guidelines and only use antibiotics where necessary.

A prospective clinical audit was undertaken with the team to meet this aim. Of the 22 cats included to-date (31/12/22) over the eight-month period of the audit, 19 (86%) did not need antibiotics to successfully treat the abscess. This audit has increased vet confidence in not using antibiotics for CBAs across nearby practices that are part of the same hub in Exmouth. They are now treated on a case-by-case basis depending on clinical signs.

Two additional practices joined the audit in January 2023, further extending its reach. The Exmouth Hub has elected to continue adding cases to the audit, with a view to publishing the outcome, sharing it within CVS and the wider veterinary community.

Promoting appropriate disposal of antimicrobials

Promoting appropriate disposal of antimicrobials will be an ongoing focus for our strategy, with resources in development to enable practices to encourage clients to return medicines all year round.

In November 2022, CVS collaborated on a profession-wide Antibiotic Amnesty to recover unused and unneeded antibiotics from companion animal owners across the country ensuring that these medications do not end up harming the environment or animals.

This year we have seen a 20% decrease overall in prescriptions of highest priority-critically important antibiotics.





We take our responsibilities seriously and will continue to focus our efforts on antimicrobial stewardship to support the health of animals, people and the planet.

Growing a culture of continuous improvement – through tracking the progress of patients following an intervention in CVS Referrals

Our outcome measures challenge:

Continuous improvement requires data to analyse and check the results of our work. In CVS Referrals, our aim was to develop an automated system that allows clinicians to track the progress of individual patients and to monitor outcomes and complications across groups of patients. This would enable us to identify factors associated with better outcomes and minimal complication.

Client reported outcome measures (CROMs) can be used to track the progress of patients following an intervention and captures the client’s perception of their pet’s health through questionnaires.

Our approach:

Working with our partner Cemplicity we developed a system that allow CROMs data collection to be automated. When a new orthopaedic appointment is booked, clients are automatically sent a baseline LOAD questionnaire, which they complete electronically. The Liverpool Osteoarthritis in Dogs (LOAD) questionnaire is a commonly used outcome measure in dogs and is now used to evaluate a wide range of orthopaedic conditions.

When surgery is performed follow up questionnaires are sent at 6 weeks, 12 weeks, 6 months and 12 months and then annually for a number of procedures (Elbow Arthroscopy, Medial Patellar Luxation, Humeral Intracondylar Fissure, Shoulder Arthroscopy, Total Hip Replacement, Achilles Tendon Repair, Pancarpal Arthrodesis).

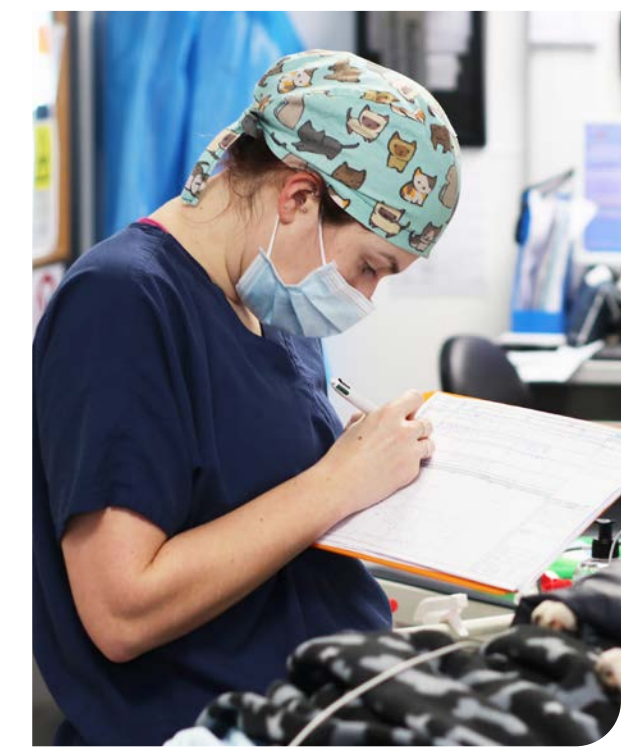
Owners are also able to record complications. Data is available for review via an online portal where individual surgeons can review their own cases, and outcomes can be audited at a local and companywide level.

The programme:

This year we focused on engaging CVS referral practice teams to sign-up and encourage client participation and data collection. The majority of CVS referral clinics have now joined this project and we are continuing to collect this data.

The outcome:

Clients appear to engage well with process with nearly 60% of those invited completing their baseline questionnaire (about 330 patients).



Growing a culture of continuous improvement – in addressing how antibiotics are prescribed in Equine

Our understanding prescribing challenge

The CVS Equine Division's Quality Improvement (QI) Focus Group set out to understand how antibiotics are prescribed in equine practice and to start to build the evidence base that would lead to the creation of clinical guidelines. Continuous improvement requires understanding work as it is currently done before developing solutions.

Our approach:

A major project for 2022 was the completion of data collection investigating current antimicrobial prescribing practices in first opinion equine practice. This 12-month point-prevalence study was undertaken by the QI Leads with data collection completed in August 2022. The audit aimed to acquire detailed information regarding antimicrobial prescribing including the drugs prescribed, dose rates and clinical indications for their use.

Data collected for each prescription of systemic doses of antimicrobials included the age, breed and estimated weight of the horse, the clinical indication for antibiotic use, the drug, the dose and the route of administration, and whether culture and sensitivity (C&S) were used to guide antimicrobial selection.

The results:

The project yielded information on 331 cases where systemic antimicrobials were prescribed. Complete data about first line-drug selection were available for 261 prescriptions. The most prescribed antimicrobial was sulfadiazine/trimethoprim

(41%), followed by oxytetracycline (23%), procaine penicillin (16%), doxycycline (13%), gentamicin (4%), metronidazole (1%), ceftiofur (1%) and enrofloxacin (1%). Highest priority critically important antimicrobials (HPCIA) (ceftiofur and enrofloxacin) were only prescribed in four horses. Clinical indications for these included possible sepsis, skin infection, lower respiratory tract infection and a wound complication. In none of these cases was the first-line drug selection based on the results of culture and sensitivity. Overall, the clinical indications for antimicrobial use were recorded in 246 cases; the most common indications were cellulitis / lymphangitis (27%), uncomplicated wounds (19%), surgical prophylaxis (15%), respiratory infections (11%) and skin infections (8%).

The outcome:

The most common reason for antimicrobial prescription in first opinion equine practices was cellulitis/lymphangitis and further work is required on risk factors. This information will be used to develop clinical guidelines for the investigation and management of these conditions.

To further assess the use of HPCIA in equine practice we plan to record all HPCIA use by introducing the concept of Antimicrobial Guardians into each equine practice who will examine use and probe into the clinical decision-making to prescribe them.

At Western Counties, we are encouraging transparency in the use of the more protected antibiotics. We keep track of the amount of patients prescribed a protected antimicrobial to help keep stewardship at the forefront of our minds and encourage more use of culture and sensitivity to justify our choices. We have a monthly tally in our vets office, showing how many horses were prescribed a cephalosporin or fluoroquinolone and if these were justified choices. This will allow us to perform quarterly reviews of our antimicrobial usage.



Growing a culture of continuous improvement – in Farm Practice

Our QI engagement challenge:

To establish and develop a quality improvement (QI) culture within the farm division.

Farm practice is different from our companion animal practices for a number of reasons which include remote working, medicine being delivered at a herd level, and farmer access to prescription medications on farms, therefore requiring a tailored approach.

Our approach:

To engage with all our practices about quality improvement. CVS has fifteen farm practices, and each has been given the opportunity to appoint a Head of QI who can advise on what might work in their area and how best to disseminate information. The Heads of QI meet in person and through virtual meetings. Following a poll of clinical directors, the focus is on delivering best practice guidelines for herd/flock level investigations. This is being done in biannual campaigns.

The programme:

In autumn 2022, the 'Calf Respiratory Campaign' was launched which supported vets to perform subsidised nasopharyngeal swabs in cases of calf pneumonia with the aim to establish the pathogens involved and engage farmers with vaccination programmes, which could also decrease antibiotic use.

The results:

By the end of the campaign over 150 clinical cases had benefited from the support, which was an

increase from 15 within the same time frame in the previous year.



Case study – Olly White, Endell Farm Vets

A farmer running a beef suckler herd acquired 100 dairy beef heifer calves from market, from multiple sources, with ages ranging from 10 days to 4 weeks. A few weeks after their arrival, our vet

noticed that a significant proportion of the calves were coughing.

The farmer had treated several calves a day for pneumonia with little improvement. Through the support of the calf respiratory campaign, nasopharyngeal swabs were taken by the vet and sent to the lab for the pooled 8 pathogen nasopharyngeal swab analysis. Acute cases of calves that were pyrexia, but had not yet been noticed, and therefore treated, by the farmer, were chosen for sampling. Identifying the infectious pathogens via nasopharyngeal swab sampling enabled antibiotic therapy to be targeted appropriately and unaffected calves to be vaccinated in this case. The farmer is planning to vaccinate the next time he buys in calves, which should lead to less dependence on antibiotic use next time.

Looking forward:

In spring 2023, the 'Sheep Worm Campaign' will promote sensible and sustainable management of roundworms in sheep, specifically with respect to regular faecal worm egg counting. The campaign will assist practices with training in farmer education on the importance of regular faecal worm egg counts and checking the efficacy of worming treatment.



Meeting or exceeding standards and being open to third party scrutiny – The Royal College of Veterinary Surgeons (RCVS) Practice Standards Scheme

“The RCVS Practice Standards Scheme (PSS) is a voluntary initiative to accredit veterinary practices in the UK. Around two-thirds of UK practices are part of the Scheme, which aims to promote and maintain the highest standards of veterinary care.”

Our aim:

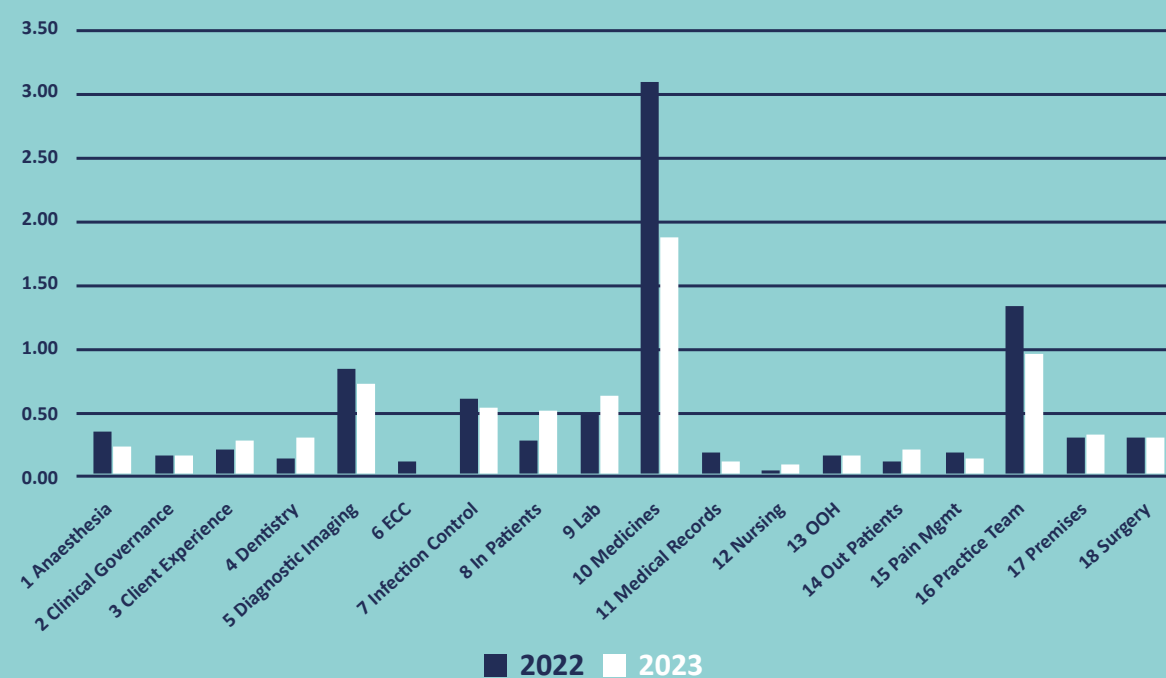
CVS believes in being open to third party scrutiny with the aim of meeting or exceeding standards. We are committed to the RCVS Practice Standards Scheme and to all practices being accredited, including non-PSS

accredited newly acquired practices, who have one year to work toward accreditation. Our aim is to offer support to all practices during this process, providing guidance on how to ensure the highest level of standard is achieved and maintained, which benefits patient and client care.

Our approach:

The Scheme provides assurance for teams and clients that the RCVS standard is met and helps us to maintain clinical standards. We audit every practice assessment report and our Clinical Services team then focus support where practices struggle to maintain consistency.

RCVS PSS Action Items as a ratio of number of assessed practices 2010 vs 2022



The results:

The PSS includes 19 modules for Small Animal and Equine and 17 Modules for Farm. Figure 1 shows that the medicines, practice team and diagnostic imaging modules had the highest level of action items of 2019 and 2022.

Examples of deficiencies included inadequate temperature monitoring of medicines and equipment not being tested. While there were few deficiencies identified, we are committed to transparency and improving where these are noted.

The outcome:

Actions taken by the clinical services and health and safety teams to improve standards in focus areas of practice team and medicines modules

1. Practice Team

These deficiencies were due to various points, where systems have been implemented to assist practices with these as follows:

- In response to a lack of risk assessments, Safety Hub, a system designed by our Health and Safety team which enables easier access to documentation, including risk assessments
- In response to missing tests and certificates of inspection. CVS has partnered with MSL to ensure all jobs relating to “property care” are all available in one single platform, easily accessible by the practice leaders.
- To maintain equipment service records, CVS has recently partnered with CERTUS Biomedical, which provides a database for all equipment available in practice, including their service records.

2. Medicines

Our response to the PSS findings include:

- Visits from the Clinical Services Team to all new acquisitions focusing on medicine regulation compliance

- Ensuring each practice has nominated a Head of Dispensary and the colleague has undergone the CVS course available called “The Safe and Legal Use of Veterinary Medicines”. This course fulfils RCVS PSS requirements and equips the learner with a good foundation on medicines legislation.
- A webinar titled “Most Common Action Items” is now available on the CVS learning platform, Knowledge Hub. In this presentation, the most common action items are outlined with helpful guidance on how to respond.

Practice Standards in the Netherlands

At present, there is no official practice standards scheme within the Netherlands. In 2019, CVS had translated and introduced an adapted scheme based on the RCVS PSS to the Dutch practices, where all practices will be assessed to Standard (Core) and Standard Plus (GP) levels. The modules are being gradually introduced on a self-accreditation plan so that support can be given where needed.

The COVID pandemic halted this introduction for a time, but we have welcomed an intern who is a student of animal management who will assist practices with their assessments throughout the Netherlands and help with data collection. From thereon, we can focus our efforts on the areas we need to prioritise and improve.

Medicines safety

Monitoring environmental temperatures where medicines are stored is not mandated by the Dutch government, as it is in the UK. As we wish to provide the best veterinary care, this also includes ensuring the safety of our medications that we prescribe. Work is currently underway to provide dataloggers to all practices by the first quarter of 2023.

RCVS KNOWLEDGE

RCVS Knowledge QI Awards 2022

RCVS Knowledge is the charity partner of the Royal College of Veterinary Surgeons (RCVS), whose mission is to advance the quality of veterinary care for the benefit of animals, the public, and society.

The RCVS Knowledge Awards for Quality Improvement showcase the implementation of Quality Improvement (QI) techniques which drive improvement within the profession. All CVS teams are encouraged and supported to apply to celebrate their achievements in improving patient care. This year saw many CVS teams being recognised for their work.

The following teams were 'Highly Commended' by the judging panel

Filham Park used clinical audit to review their use of the dental x-ray machine, identifying gaps in x-ray provision and providing

clients with appropriate estimates. Training was implemented to improve skills and confidence, leading to an increase in service provision on repeat audit, and increased client satisfaction.

Manchester Veterinary Specialists

performed an anaesthesia service review to address any gaps in care, improve team roles and morale, and report practice anaesthetic-related mortality rates.

Okeford Veterinary Centre for embedding QI into their daily routine with the use of morning rounds, huddles, checklists, and audit. The application showed a good culture towards improvement.

Silverton Vets used a literature review to encourage the purchase of dental radiography and held dry lab training sessions remotely to train their team on its use.

Audits were performed monthly to monitor diagnosis (and therefore patient care), team confidence, and client satisfaction.

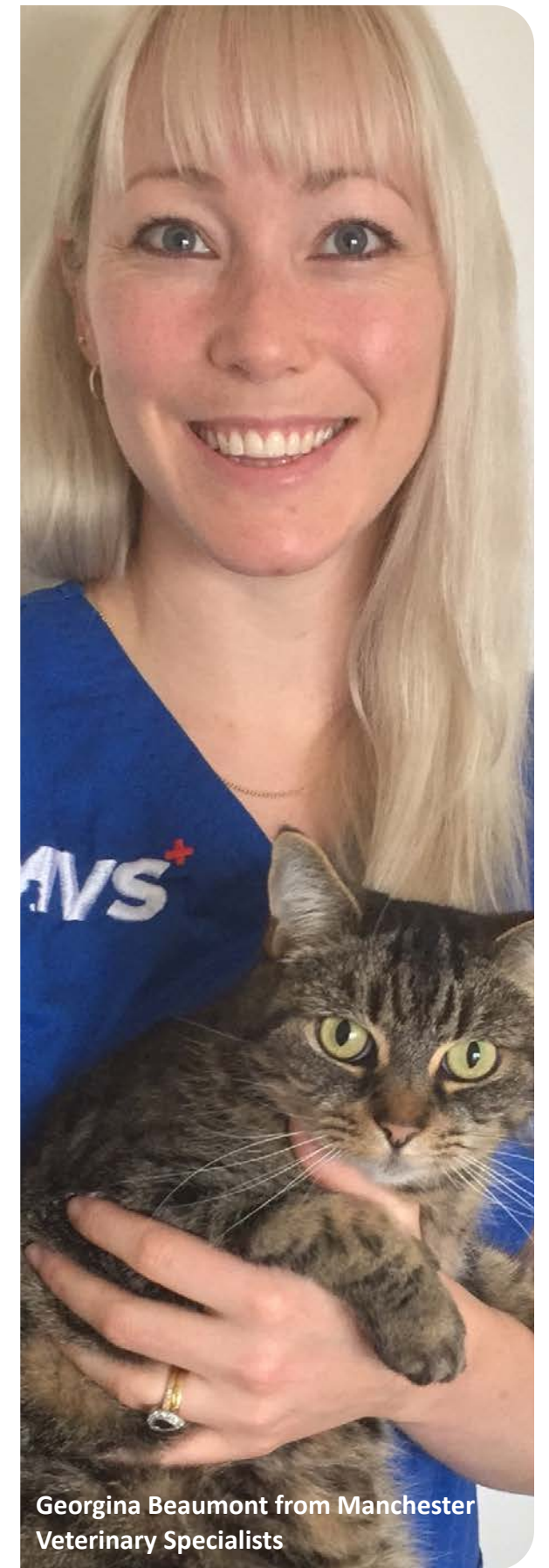
Small Animal Division CVS UK developed guidelines for common conditions and presentations for use at a first opinion practice level. The 43 guidelines allow the provision of a more consistent service and offer support to less experienced team members.

The following teams were highly commended as 'Ones to Watch'

CVS Equine established a QI team within the equine division, to support equine practices with QI in practice. The application demonstrated a team approach with good leadership and implementation of QI projects.

Rosemullion Vets performed a process audit on the use of surgical safety checklists showing an increase in the understanding and use of the lists from the team.

Putlands Veterinary Surgery developed a QI group with members from the vet, nursing, and reception team. They started to look at patient safety checklists, significant event audits and auditing analgesia for neutering procedures.



Georgina Beaumont from Manchester Veterinary Specialists



CVS Group

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