



AniCura Quality Report *2015*

Preamble

This AniCura Quality Report is an important milestone as it is the first quality report in AniCura's history and the first quality report by a European veterinary group. The report provides a summary of many of the ongoing quality initiatives within our organisation, as well as highlights areas in need of increased focus and improvement. For us, developing quality is an ongoing effort!

The veterinary care industry is evolving rapidly, and AniCura is taking an active role in this development. In terms of quality, the industry has been relatively quick to pick up on quality enhancing practices even though it has historically been implemented clinic-by-clinic based on individual preference and approach, at times leading to relatively large local variations.

The most advanced expertise and equipment making up the specialised segment of the veterinary industry is typically present in the larger animal hospitals and clinics that have become AniCura's hallmark.

Just as in human medicine, where quality of care has played an important role in the past decades to both patients and practitioners alike, the veterinary industry is now increasingly looking at ways to systematically develop quality. This is further facilitated by many animal hospitals joining forces, as has been the case within AniCura.

For AniCura, quality is the number one priority and our ambition is to provide the highest quality veterinary care available. What is best for our patients always forms the basis of our clinical decisions and we are dedicated to provide the most empathetic care and the best veterinary expertise.

The AniCura animal hospitals and clinics have been in the business of providing excellent

veterinary care for on average more than 20 years, and our oldest hospital has been helping ailing animals for more than 100 years! As we constantly witness the many benefits from working together within AniCura, we felt the time was ripe to push the boundaries even further by also comprehensively and systematically addressing the area of quality from a group perspective.

To ensure sufficient focus and progress, AniCura appointed a team of highly qualified and dedicated vets to lead the initiative, with the invaluable support from the many vets and nurses in our animal hospitals. The team's first task was to identify best practices within quality development, both externally in other industries such as human healthcare, as well as internally through discussions and observations in many of our hospitals and clinics. The results of these efforts became QualiCura, our internally developed companywide program for systematic quality improvement launched in 2015.

QualiCura embodies many of the AniCura characteristics that we are so proud of. Working together to enhance veterinary care, being fanatic about the importance of high quality, sharing knowledge and best practice and being transparent about what we are up to.

We hope that you will find this AniCura Quality Report inspiring to read. Thank you for showing an interest in the work that we do and the everyday continuous improvements we strive for at all our animal hospitals!

*AniCura - shaping the future of
veterinary care, together*

PETER DAHLBERG
GROUP CEO, ANICURA



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Background

AniCura's vision "*Shaping the future of veterinary care, together*" has been a guiding principle since the company's foundation. This vision rests equally on two pillars; Quality excellence and Customer service. AniCura seeks to ensure both quality and service as these are intrinsically linked.

WHAT IS QUALITY?

The term quality can mean different things to different people. AniCura has chosen to maintain a broad perspective on quality, encompassing almost all of the actions and processes that our members of staff perform and that our patients receive and our customers appreciate.

We believe improvements can be identified and implemented in all these areas by working together and applying a continuous improvement methodology across AniCura.

Within this broad perspective, we have initially chosen to focus on the medical aspects of quality, as the medical outcome for a patient is the ultimate result of quality in a long chain of decisions and actions, efforts and prioritisations.

Introducing QualiCura

Continuous quality improvement has for a long time been at the heart of all the animal hospitals forming AniCura. Since AniCura's foundation in 2011, these efforts have been made easier through sharing knowledge, best practice and ideas around quality improvements between the animal hospitals. In order to accelerate quality development, AniCura has in 2015 designed and launched a company-wide program for systematic quality improvement called QualiCura. The principal aim of the QualiCura program is *"To enable AniCura's patients to receive safer care, with better medical outcome"*. In essence, AniCura's quality of care efforts are patient-centred with a specific focus on patient safety.

DESIGN PRINCIPLES

In order to continuously and effectively identify and implement quality improvement initiatives, AniCura believes that this responsibility needs to reside at the local hospital as well as within each individual working at AniCura.

In terms of quality improvement, our overall QualiCura approach is designed to trigger relevant measurements and discussions at the hospital level, aided by comparisons across animal hospitals and over time. As everything (hospitals, individuals, processes, systems, etc.) can always improve, the QualiCura program focuses on relative improvement over time, irrespective of starting point.

THE QUALICURA APPROACH

QualiCura has chosen a holistic approach to quality in order to avoid sub-optimisation and silo thinking. This approach also caters to a wide variety of clinical settings in many different countries. Moreover, QualiCura is gathering data from the animal hospitals

to enable comparative studies and make sure AniCura has a fact- and evidence-based approach not only in the field of veterinary medicine, but also within quality development.

QualiCura is initially focusing on areas that we believe have a particularly large impact on the safety and medical outcome of our patients:

- Encouraging professional development and specialisation
- Creating and sharing medical best practices
- Improving professional communications skills
- Providing reliable diagnostic medicine
- Ensuring wiser antimicrobial use
- Monitoring surgical site infections
- Securing proper infection prevention and control
- Enabling good incident handling
- Promoting patient medical record quality

For each of the focus areas AniCura sets certain input or output-oriented quality indicators by which the animal hospitals can measure themselves and compare their progress over time and with other hospitals.



QUALICURA APPROACH:

Each quarter, AniCura's hospitals participate in various topical surveys, after which they receive their results and benchmarks together with best practice and guideline documents to enable further clinic-specific improvement discussions. Some focus areas and quarterly timings change and develop over time.

Organisation and resources

The vast majority of quality improvement is conducted locally in the various AniCura animal hospitals, but to further focus, structure and manage this development, AniCura has recruited a handful of highly skilled veterinarians with quality improvement experience and academic merits, ensuring sufficient focus and execution.

The 2015 QualiCura team comprised:

Stein Istre Thoresen, DVM, PhD, Professor in Clinical Pathology at Norwegian University of Life Sciences, Dipl ECVCP, Dipl ECVIM-CA, Group Medical Quality and Development Director

Anneli Bjørnsdørf, DVM, PhD, Business Area Manager Laboratory

Ulrika Grönlund, DVM, PhD, Group Medical Quality Manager

Peter Feledy, Chief Operating Officer

The 2015 QualiCura reference group comprised:

Titti Sjödahl-Essén, DVM, Swedish specialist in Ophthalmology, Head veterinarian AniCura Djursjukhuset Albano, Stockholm, Sweden

Birgitte Grann Greve, DVM, Veterinary ophthalmologist, Member of the Norwegian Eye-panel (ECVO-examinations), Head Veterinarian, AniCura Oslo, Practice Manager, AniCura Dyresykehus Oslo, Norway

Peter Masbøl Skov, DVM, Danish specialist veterinarian (Specialdyrlæge) in Oncology, AniCura Odense Dyrehospital, Denmark

AniCura's efforts around quality and veterinary development are also supported by two councils: AniCura's Scientific Council and AniCura's Veterinary Development Council.

ANICURA'S SCIENTIFIC COUNCIL

The council promotes evidence based medicine and clinical research within AniCura.

THE 2015 MEMBERS OF THE COUNCIL:

Anna Tidholm, DVM, PhD, Associate Professor, Dipl ECVIM-CA (cardiology), AniCura Animal Hospital Albano, Sweden

Stein Istre Thoresen, DVM, PhD, Professor in Clinical Pathology at Norwegian University of Life Sciences, Dipl ECVCP, Dipl ECVIM-CA, Group Medical Quality and Development Director

Anneli Bjørnsdørf, DVM, PhD, Business Area Manager Laboratory

Christina Strand Thomsen, DVM, Dipl ECVS, AniCura Bergen Nord, Norway

Steen Engermann, DVM, Danish specialist veterinarian (Specialdyrlæge) in Oncology, AniCura Aarhus Dyrehospital, Denmark

Jens Haggström, DVM, PhD, Dipl ECVIM-CA (cardiology), Professor of Internal Medicine, small animals, Swedish University of Agricultural Sciences, Sweden

ANICURA'S VETERINARY DEVELOPMENT COUNCIL

The council safeguards AniCura's overall veterinary priorities by keeping abreast of trends and general national and international developments in veterinary medicine.

THE 2015 MEMBERS OF THE COUNCIL:

Nanna Denneberg, DVM, Swedish specialist veterinarian in canine and feline oncology, Head Veterinarian, AniCura Animal Hospital in Jönköping, Sweden

Bente Akselsen, DVM, Norwegian specialist veterinarian in small animal diseases (DNV), Practice Manager, AniCura Dyresykehuset Tromsø, Norway

Birgitte Grann Greve, DVM, Veterinary ophthalmologist, Member of the Norwegian Eye Panel (EVCO-examinations), Head Veterinarian, AniCura Oslo, Practice Manager, AniCura Dyresykehus Oslo, Norway

Henrik Strange, DVM, Danish specialist veterinarian (Fagdyrlæge), Practice Manager, AniCura Gistrup Dyrehospital, Denmark

Matilda Wallman, Registered Veterinary Nurse, AniCura Norsholms Djursjukhus, Sweden

Anneli Bjørnsdørf, DVM, PhD, Business Area Manager Laboratory

Stein Istre Thoresen, DVM, PhD, Professor in Clinical Pathology at Norwegian University of Life Sciences, Dipl ECVCP, Dipl ECVIM-CA, Group Medical Quality and Development Director

Peter Feledy, Chief Operating Officer

Peter Dahlberg, Group Chief Executive Officer



Encouraging professional development and specialisation

Veterinary medicine is developing at a fast pace and formal continuing professional development (CPD) as well as on-the-job-training opportunities are essential for keeping up with this development and thereby providing better medical services. A prerequisite for giving the highest quality veterinary health care is also to attract, develop and retain the most competent and passionate people. AniCura does this by encouraging and supporting each employee to develop an individual plan outlined in cooperation with the hospital management in order to facilitate their competence development. AniCura's specialisation and continuing education approach not only applies to veterinarians, but also to technicians, veterinary nurses, biomedical scientists, physiotherapists, receptionists and other staff that seek to specialise and develop further in their respective fields.

The possibilities for CPD vary in duration and specification from short courses and consecutive series of courses in specific and limited topics to formal postgraduate education systems such as national and international certificates. AniCura hospitals cooperate with specialised education companies and universities across Europe and USA.

In addition, we provide an increasing number of internally generated courses where either some of our own specialists or external lecturers provide us with the latest knowledge

in different disciplines. AniCura also educates new national specialists (with different requirements in each geography) as well as European board-certified veterinary specialists (Diplomates) as many of our animal hospitals are approved education institutions.

When it comes to on-the-job-training, this is mainly done within each clinic, but being a part of a larger group provides increasing opportunities to arrange rotations between hospitals.

SPECIALISATIONS WITHIN ANICURA

As the veterinary medical field is moving quickly in terms of development and advancement, and many treatments that were not performed ten years ago are today considered standard practice, the demand for specialist veterinary competence is increasing in all countries. The specialist accreditations can either be a national specialisation, or an international accreditation, including board-certified veterinary specialist (Diplomate), Master and Doctoral degree (PhD).

AniCura encourages members of staff that wish to develop and specialise. At present AniCura is the veterinary care provider in Europe with most specialists within small animal veterinary care (i.e. dogs, cats and other companion animals) and have across its animal hospitals referral-receiving veterinarians in the following areas:



- Anaesthesiology
- Cardiology
- Clinical pathology (Laboratory diagnostics)
- Dermatology
- Diagnostic imaging
- Emergency medicine and critical care
- Endocrinology
- Gastroenterology
- Infection prevention and control
- Nephrology
- Neurology
- Odontology (Dentistry)
- Oncology
- Ophthalmology
- Orthopaedic surgery
- Rehabilitation and physiotherapy
- Reproductive medicine and surgery
- Soft tissue surgery
- Urology

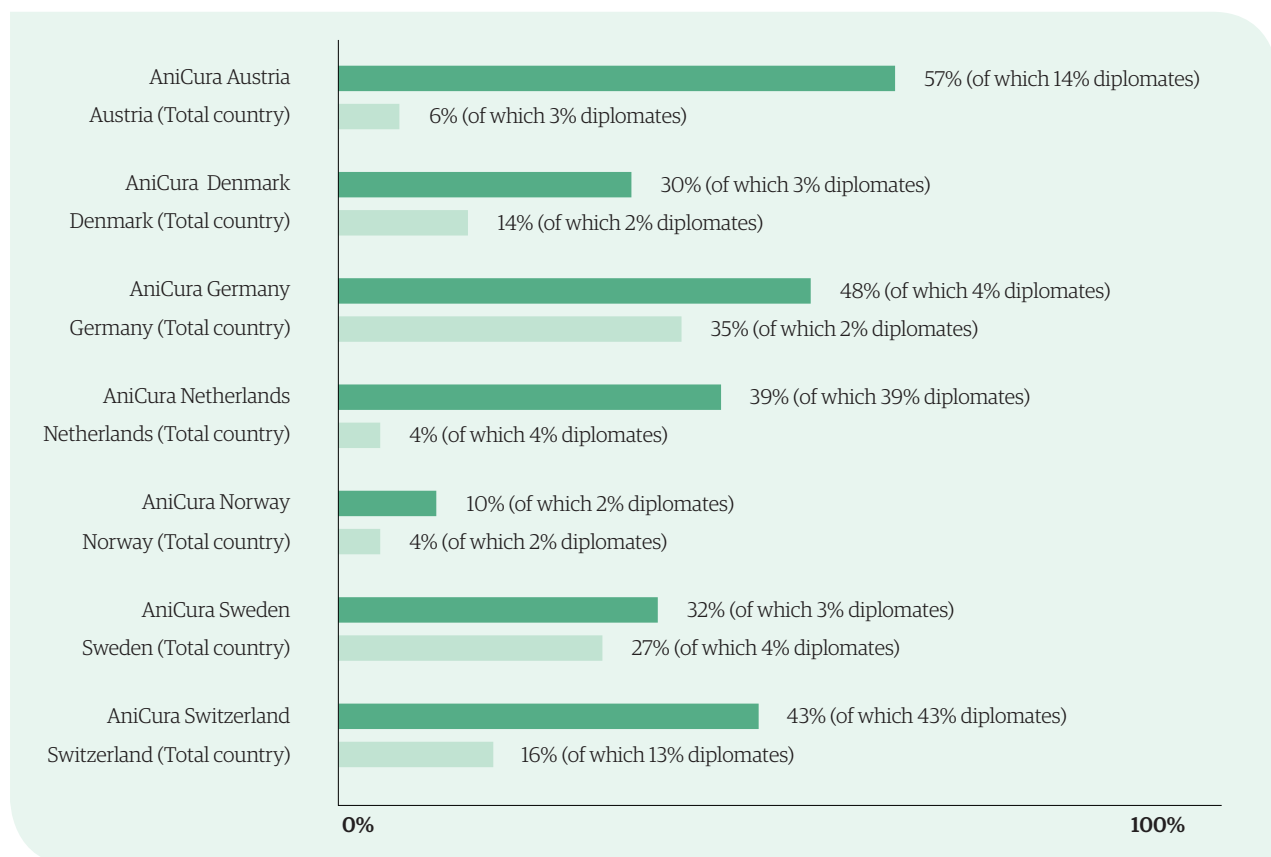
In countries where AniCura had a presence at the time of writing this report, AniCura had a significantly higher proportion of either national or board-certified specialists (Diplomates) than each country on a whole. This provides further testament to AniCura's position within high quality specialised veterinary care (see figure below).

REFERRAL CENTRES

Due to the large share of specialised veterinarians, AniCura receives a significant number of referrals from other veterinary care providers. Across AniCura, approximately 1/3 of our

patients are referred from other veterinarians. The main reasons for referrals are typically that more specialist competence is sought by the referring veterinarian, that the pet owner demands a second opinion from a specialist or that the type or time of care required is unavailable at the local veterinarian. Veterinarians within AniCura also regularly refer patients to other specialists and the decision where to send patients (internally or externally) solely rests on the treating veterinarian's view on what is judged best for the patient from a medical perspective.

SHARE OF VETERINARIANS THAT ARE SPECIALISTS



Source: AniCura, Federation of Veterinarians of Europe, European Board of Veterinary Specialisation, Österreichische Tierärztekammer, Den Danske Dyrlægeforening, Bundesverband Praktizierender Tierärzte, Bundestierärztekammer, Koninklijke Nederlandse Maatschappij voor Diergeneeskunde (KNMvD), Den norske veterinærforening, Sveriges veterinärförbund, Gesellschaft Schweizer Tierärztinnen und Tierärzte
Note that country totals include diplomates at University institutions.

Creating and sharing best practice

Proper veterinary medicine has an evidence based approach, where research continuously provides advancements and new knowledge. However, several areas of veterinary medicine still require much more research to provide answers around how to best alleviate and cure diseases. AniCura's veterinary professionals possess significant experience in meeting and treating various animals. AniCura's position is that quality is best achieved when this experience is coupled with the latest available findings from research. AniCura therefore seeks to promote the creation of best practice knowledge, as well as making sure that this knowledge is disseminated to others in an effective way. AniCura's professionals benefit greatly from belonging to a large group where knowledge is regularly shared across hospitals and working groups.

CLINICAL RESEARCH

Research is vital for continuous advancement of veterinary medicine and AniCura has many dedicated employees who devote time and effort to conduct clinical research alongside their everyday work. These researchers have both formal and informal collaborations with leading medical specialists and university institutions across Europe as well as North America. Applied clinical research may be challenging as it often requires a high number of patients. The large amount of patients that

is cared for at the AniCura animal hospitals and clinics constitute a great opportunity to accomplish clinical research. There are also strict rules governing clinical research, such as gaining informed owner consent and ethical committee approval. Research projects can be financed by the researcher, the work place, and by external scientific funds. In 2015, the AniCura Research Fund was established and AniCura employees were invited to apply for research funding. To date, over 50 AniCura employees have published more than 300 research publications in respected scientific journals, only publishing articles that are reviewed by external experts. Many researchers within AniCura have been selected to present their research findings at various international congresses.

ANICURA RESEARCH FUND

During 2015, AniCura together with three of its owners (the Animal Hospital Foundation in Greater Stockholm, Fidelio Capital and Nordic Capital) established the AniCura Research Fund to support clinical research conducted by AniCura employees. The scientific screening and ultimate decision on which research projects to fund lie with AniCura's Scientific Council. The Council comprises veterinarians both from AniCura as well as external experts, all of whom have extensive veterinary expertise and

documented scientific merits (see page 10). The Scientific Council reviews applications for funding to projects of high scientific research standards with potential of being published in scientific journals. The AniCura Research Fund has an annual application and grant reviewing process. The AniCura Scientific Council currently has a mandate to grant funds of up to SEK 1 million per annum.

The application process for 2015 attracted applications from many merited researchers within AniCura. Research projects in 2015 that were funded by the AniCura Research Fund include projects concerning cardiology, neurological conditions, infection diseases and coagulopathies.

- Development of mitral insufficiency in the Norfolk Terrier, Anna Bodegård, DVM, PhD, AniCura Albano Djursjukhus, Stockholm, Sweden.
- Gene therapy for dogs with epilepsy: The first clinical trials, Rikke Fast, DVM, PhD, AniCura Aarhus Dyrehospital, Aarhus, Denmark.
- Phenotypic classification of breed related myelopathies in Pugs, Cecilia Rohdin, DVM, Dipl ECVN, AniCura Albano Djursjukhus, Stockholm, Sweden.
- Seroprevalence of tick-borne encephalitis virus (TBEV) antibodies in clinical healthy dogs in South-east Sweden, Mikael Svensson, DVM, AniCura Läckby Djursjukhus, Kalmar, Sweden.
- Evaluation of whole blood hemostasis with thromboelastography in Cavalier King Charles Spaniels with different severities of myxomatous mitral valve disease, Josefine Öberg, DVM, Dipl ECVCP, AniCura Regiondjursjukhuset Bagarmossen, Stockholm, Sweden.

SCIENTIFIC JOURNAL AND DATA BASE ACCESS

Access to scientific journals is a key to enable more evidence based medicine to be practiced within AniCura. To facilitate this, AniCura is subscribing to an advanced research database with access to biomedical and health care journals for the benefit of all employees. Subscriptions to several veterinary medicine journals are also organised. The research database provides access to assembled metadata indexed content from many world-wide database providers including PubMed, Web of Science, AGRIS and SCOPUS.

KNOWLEDGE SHARING

“Knowledge is the only thing that grows when it is shared” as it was wisely put by old Sanskrit poets 2 500 years ago. Knowledge sharing is fundamental to AniCura’s values and how we operate, and as such is something that we try to reinforce and encourage as much as possible. This obviously has positive effects on the quality of care offered by AniCura hospitals. Not only are best practices shared across all medical disciplines, but also examples about how to best address and implement various improvement opportunities are shared and discussed.

JOURNAL CLUBS

To encourage study of scientific research articles many AniCura animal hospitals arrange “Journal clubs”. In these clubs veterinarians gather to study and discuss new research findings and their implementation in clinical situations. Journal clubs are led by committed professionals, often with an advanced academic background. Besides the training in critically reviewing scientific papers, these meetings also encourage the habit to discuss clinical situations with colleagues and take research into account in the daily clinical work.



MEDICAL INTEREST GROUPS

The AniCura Medical Interest Groups provide great opportunities for knowledge and best practice sharing as well as general information within specific disciplines. Any member of staff may join an interest group to discuss and share cases and insights and develop further within various medical fields. In 2015 AniCura ran 12 medical interest groups, and new interest groups are established consecutively for new disciplines.

Leading an interest group is a very important responsibility and this is typically shouldered by one or more persons possessing deep knowledge in a certain medical field as well as a true passion to share and disseminate knowledge in the wider AniCura community. Whilst the detailed working forms of the groups vary, they all provide a home for the different medical disciplines, and spread current knowledge in each field. Examples of activities in the medical interest groups range from arranging courses and medical quizzes, developing and disseminating best practice protocols, discussing cases, and arranging physical group meetings. The activities are documented on AniCura's Intranet so that they are easily available throughout the company.

Through the medical interest groups, AniCura stimulates competence development

of veterinarians and nurses within particular disciplines as well as provides access to a network of specialists that can be easily contacted regarding more complicated cases. It also provides a great way for less experienced veterinarians and nurses to get acquainted with various fields, and be inspired to pursue a specialisation of their own.

ONLINE KNOWLEDGE BASE

To further improve the medical quality level, AniCura has created an online repository of best practice documents regarding different types of diseases and treatments. These documents are often created by AniCura specialists and/or medical interest groups, and contain best practice treatments in each medical field made available through research findings and applied knowledge. Documenting and discussing best practices are an improvement process in itself, as competing lines of thought can crystallise with a continuously improving result.

Providing quick searchable access to these documents makes the condensed knowledge of various specialists available at the fingertips also for less experienced colleagues. The knowledge base documents are intended to provide a reference point which clinicians can use. The case-specific medical decisions however, always reside with the local, responsible veterinarian.


Voices of AniCura

 **Christina Strand Thomsen**, Veterinarian,
AniCura Bergen Nord, Norway

Why is it important for AniCura hospitals and clinics to monitor surgical site infections?

"The main argument for monitoring is that if you are not aware of a problem, you cannot do anything about it.

The easiest and by far the best way to detect a problem at an animal hospital is to have a documented infection control program in place. This has become more and more important as the hospitals have been getting larger, more advanced and invasive procedures are being performed and as we see more immuno-compromised animals. Also with the emergence of multi-resistant bacteria (some with a potential to spread to humans), the general public will expect that we as veterinarians will do our utmost to protect not only their pets, but also themselves."

 **Bente Akselsen**, Veterinarian and Practice manager, AniCura Dyresykehuset Tromsø, Norway


Why is communication important to quality? What learning did you find most valuable in your communication training?

"We find communication important in every aspect of our clinical work and customer service. The way we communicate amongst ourselves - sharing knowledge, planning our daily tasks and performing our work is of importance not only for the atmosphere we have at the clinic, but also for the quality of our work. Being a small animal hospital means working in team and good communication is essential also for the safety of the patients. Personally I find that good internal communication leads to a good atmosphere that also is visible to our clients. Client communication is of course very important - showing empathy, applying good pedagogic skills to ensure compliance of a treatment and for simply providing good customer care. Our communication training had a very practical approach and was based upon clinical cases and good examples from our everyday work at the hospital. It was evidence based and we were given great communication tools we started using immediately."

 **Madelene Holappa**, Veterinary nurse,
AniCura Veterinärboden, Åkers
styckebruk, Sweden

Why is infection prevention and control important for patient safety?

"From an everyday perspective, I want our patients leaving the clinic to be healthier and in a better condition than when they arrived. This of course includes that no transmission of micro-organisms should occur to the patient during the stay. In a longer perspective, I believe good infection prevention and control is essential to reduce the need for antibiotics and thereby development of antimicrobial resistance enabling humans and animals to receive adequate health-care also in the future."

 **Anna Tidholm**, Veterinarian, AniCura
Albano Djursjukhus, Stockholm, Sweden
and Chairman of AniCura's Scientific Council


Why is evidence based veterinary medicine important?

"Evidence based medicine in veterinary science is essential for the development of the skills and knowledge that is required for every-day clinical work and sound decision making. Traditionally, both human and veterinary sciences have mainly been based on clinical experiences rather than on scientific evidence. In the 1970's and 80's scientists began to seriously question the evidence behind many of the clinically based "truths" that were agreed upon in the medical community, which resulted in the "Cochrane collaboration". Evidence based medicine has its origin in this collaboration, and can be defined as the awareness of a general lack of scientific evidence in every-day clinical decision making and the strive to increase this proportion."

In what way does a company such as AniCura promote evidence based veterinary medicine?

"Evidence based medicine requires large scale clinical trials and investigations. Today, many veterinary practices belong to companies that might provide the environment for the development of evidence based

medicine in the veterinary field. AniCura in particular promotes this development by allocating substantial financial support for scientifically sound clinical studies and by providing the infrastructure for sharing knowledge and extensive collaboration within the company."

 **Helena Karlström**, Biomedical scientist, AniCura Västra Djursjukhuset, Gothenburg, Sweden


Why is quality within laboratory diagnostics so important?

"Laboratory diagnostics in veterinary health care should be of the same quality as diagnostics in human health care. As more and more pet owners wish the veterinarians to treat increasingly serious diseases in their pet, the quality level of the laboratory diagnostics needs to be unquestionable. Furthermore, pet owners should get the quality of the diagnostics they pay for. But having the right quality assurance of the equipment is only one thing - the quality level of the laboratory performance is also dependent on the competence of the laboratory personnel working in the laboratory as well as the veterinarians correctly interpreting the results."

 **Thomas Rieker**, Veterinarian and Practice manager, AniCura Kleintierspezialisten Ravensburg, Germany


How has the way you work with quality changed since you became a part of AniCura?

"In Ravensburg, we have worked for high quality care for many years, but joined AniCura as it shares our vision of focusing on quality development. We appreciate the QualiCura approach which focuses on themes that we find really important such as hygiene and infection control as well as laboratory instrument quality and medical record keeping. We also like the fact that so much of the work is clinic-oriented and not "paperwork". Quality development must take place in the clinics and we all have an important task of talking to each other about how we can improve things further. Setting and communicating clear goals and implementing them together with the staff in the clinic is key."

 **Jens Ruhnau**, Veterinarian and Practice manager, AniCura Tanddyreklinikken, Copenhagen, Denmark

You have been very active in giving odontology courses within AniCura - why is training in dentistry so important?

"Sharing knowledge is free. All AniCura clinics see many dental patients, so increasing our skills in this field creates better treatment options for many patients and thereby improving animal welfare. By sharing knowledge we can make more exact diagnoses, and hence give more accurate treatments. All clinics can be trained to perform correct basic treatments, but also to diagnose more special conditions and refer to a relevant specialist for optimal treatment."

 **Hans Nieuwendijk**, Veterinarian and Practice manager, AniCura De Tweede Lijn, Willhelminaord, Holland

Why do you think it is important for patient safety to reduce the amount of antibiotics we use within small animal veterinary care?

"Using antibiotics always puts a strain on the individual bacterial flora of each patient. For that reason alone antibiotics should be used with caution. Moreover, unwarranted use of antibiotics contributes to the continuous 'race of arms' against the bacteria. Whenever an antibiotic is used we aid in the development of antibiotic resistance."



Improving professional communication skills

Research indicates that ineffective communication among human health care professionals is one major cause of medical errors and patient harm. Therefore, good professional communication is a quality issue directly linked to patient safety. There is no reason to believe that this is different in veterinary medicine. The problem presented by the pet owner has to be recognised correctly to be solved. Medical staff must also be confident that the owner properly understands the implication of the medical issue for the patient; the follow-ups, the prognosis and the recommended treatments as well as the costs.

THE ANICURA PROFESSIONAL COMMUNICATION PROJECT

For the above reasons, the AniCura Professional Communication Project was initiated during 2015.

The AniCura Professional Communication Project focuses on pet owner experience and understanding with the aim to ensure that clinical staff attains a correct understanding of the problem(s) presented by the pet owner.

The project is based on communication trainings with AniCura staff members involved in client communication in a clinical setting and also covers telephony. This important first line communication helps ensure that the right choices are made throughout the visit and treatment. A pilot communication project comprising several seminars was launched in 2015. Feedback from the participants provided clear learnings about the importance of improving communication skills in the professional daily work, as well as a good understanding on the best means of training, supporting our decision to further roll out the program across AniCura.

Providing reliable diagnostic medicine

Veterinary medicine may be challenging as the patients do not describe their predicament and due to normal animal behaviour sometimes try to hide symptoms of disease or pain. Experienced eyes and hands of professionals are together with the patient history provided by the pet owner the most important components for enabling good medical care. In addition to these, diagnostic medical procedures provide an increasingly important tool.

Diagnostic medicine comprises diagnostic imaging as well as laboratory medicine. Diagnostic imaging encompassing radiology (X-ray), ultrasound, magnetic resonance imaging (MRI) and computed tomography (CT), is a prioritised development field within AniCura. Images not only support diagnosis made by veterinary professionals, images also aid the pet owner to understand the situation, which is crucial for compliance and successful treatment. Diagnostic imaging also enables trained specialists to perform more minimally invasive surgery techniques (e.g., arthroscopy, laparoscopy, urethroscopy, bronchoscopy) with lesser pain, shorter recovery time and fewer complications as a typical result.

AniCura invests substantially in advanced medical equipment, development of skills and training to achieve high quality veterinary care. During the past three years AniCura has

invested in MRIs, CT-scanners and advanced medical ultrasound machines and placed them in a large number of AniCura animal hospitals. By the end of 2015, AniCura had 35 MRIs and CTs in operation. Individual training of involved personnel have been performed in parallel to the installations. AniCura radiology specialists combined with continuous education for employees in evaluating medical images, secure high level diagnostic procedures. In addition to having several board certified AniCura radiology specialists, we also use the services of specialised external institutions to decipher more complex images.

According to a study*, laboratory medicine diagnostics produce 94% of all objective data in a patient record and 60 - 70% of all critical decisions depends on data from the laboratory. This explains the efforts that AniCura makes within quality based laboratory medicine. Advanced laboratory instruments are available at all AniCura animal hospitals. Upgrades and new instalments occur continuously. Laboratory medicine courses are provided internally for all medical laboratory scientists as a complement to the externally held courses in haematology, clinical chemistry and cytology that AniCura personnel attend. Regular case studies and webinars handling interesting cases inspire and enhance knowledge throughout AniCura.

* Evidence based pathology and Laboratory Medicine; Ed. A.M. Marševsky and M.R.Wick, Springer 2011



LABORATORY QUALITY ASSURANCE PROGRAM

Accurate and reliable test results are essential in providing the high quality care that is the signature of AniCura. The AniCura Laboratory Quality Assurance program was put in place to maximise the accuracy of laboratory results. The program includes:

- Documentation of processes, maintenance and sampling procedures
- Standard operations procedures (SOPs) for the methods and instruments used for the analyses
- Quality control procedures used for each assay to ensure valid test runs and reliable results, e.g., kit controls and quality control samples
- External quality assessment schemes

All AniCura animal hospital laboratories perform regular quality control procedures on their equipment and have maintenance agreements for their instruments, and more comprehensive documentation and SOPs are being developed continuously. In 2015 several AniCura hospital laboratories participated in external quality assurance programs. The instruments at smaller AniCura laboratories are remotely monitored and audited.

Ensuring wiser antimicrobial use

Accurate veterinary treatments form an integral part of AniCura's focus on patient safety. Antimicrobials/antibiotics are an important tool in the veterinary armoury to improve animal welfare by defeating infectious diseases. These drugs kill or inhibit bacterial growth and can be life-saving. However, antimicrobials should be given with caution. They are not always beneficial for the health of the animal.

If the patient with a severe infection receives the wrong antimicrobial substance or dose, it can impair the well-being of the individual or even be life-threatening. In addition, antibiotics given to a patient on erroneous indications will be a disservice to the individual as an antimicrobial treatment harms the individual's normal flora lowering the natural immune system in the body and the patient becomes more susceptible to resistant bacteria. Antimicrobial resistance is also stipulated as the biggest threat to human health according to the World Health Organization (WHO) and it is therefore of significant concern also within veterinary medicine. Resistant bacteria are today affecting the welfare of dogs and cats across Europe. All antimicrobial treatments, given to humans or to animals, will favour these bacteria, because other susceptible bacteria are killed. In turn, resistant bacteria spread over country borders, between animals and humans and among individuals. Hence, a misuse of antibiotics to pets will not only be a danger to the individual itself, but also for humans such as pet owners, for employees and the community as a whole.

AniCura is operating in several different countries and each country has its own tradition concerning antibiotic use. Therefore, veterinari-

ans within AniCura are requested to follow their national guidelines, but they are also engaged in promoting lesser and smarter use, which often means to challenge his or her own habits. AniCura lends extra attention to the following statements:

- Antimicrobial therapy is only initiated if the patient is affected by a bacterial infection that cannot otherwise be resolved without being hazardous to the patient welfare.
- Initiated antimicrobial therapy is accurate in substance, dose and dosing. The duration is kept to a minimum.
- Surgical antibiotic prophylaxis never makes up for poor hygiene or lack of surgery skills and is only given to qualified patients and must be given at the right time before incision.
- Local case-based discussions on patients needing or not needing antimicrobial treatments are regularly held to share knowledge and experience within the animal hospital.

To be able to further support and guide AniCura veterinarians to make wiser antimicrobial decisions, QualiCura investigated the actual antibiotic prescribing behaviours. During a set time period in the fall of 2015, veterinarians were asked to fill out which canine patients received systemic antibiotics; on what indication, what substance, duration of treatment, and if diagnostic aids like cytology and/or bacteriology were used to support the treatment.



STUDY RESULTS AND NEXT STEPS:

The survey took place in Norway, Sweden and Denmark at 36 animal hospitals, representing 85% of the total number of patients received at AniCura during that time. During the study period, 339 dogs received systemic antibiotics, which means that about 5% of the canine patients got treated. Mainly old substances of beta-lactam antibiotics were used, like amoxicillin and amoxicillin-clavulanic acid. To our satisfaction, the use of newer and critically important antimicrobials as defined by WHO, like fluoroquinolones (Baytril) and third generation cephalosporins (Convenia) was rare, only given to 5% of the treated dogs. The main indications were wounds together with abscesses followed by skin infections. Here we identified room for improvements; with increased knowledge and experience in wound treatments, some of these cases could have recovered well without systemic antibiotics. The median duration of treatment in this study was 5 days and ranged from 1 to 30 days where patients with skin infections received

the longer treatments. These results are in line with guidelines. However, median duration for surgical prophylaxis was 2 days, which is not according to recommendations and should be shortened. Only few of the antimicrobial treatments were based on diagnostic analyses (below 10%), which could be a drawback for the patient's welfare.

The results together with comments and specific tips on how to make wiser decisions on antibiotics were communicated to the participating hospitals for the veterinarians to discuss. This survey also initiated educational case-based seminars to take place in the fall of 2016, formation of a new medical interest group on wound treatments and a request for the surgical interest group to put prophylaxis guidelines in place. This study was unique in scale and scope, and will be followed by similar studies of antimicrobial use within AniCura to enable our veterinarians to continuously make wiser decisions around antimicrobials.

Monitoring surgical site infections

An important part of veterinary medical quality is to monitor health-care associated infections (HAI). One of the most fundamental HAI to monitor are surgical site infections (SSI). Without data on SSI, it is difficult for the animal hospitals to evaluate their surgical outcomes and to improve their surgical procedures if needed. In addition to patient suffering and frustration for pet owners and members of staff, SSI cause unnecessary costs. One challenge with this type of monitoring is the follow-up of patients that have been discharged from the animal hospitals. If the hospital relies on pet owners coming back in case of complications, the number of unknown cases will be high. The pet owner may visit a different hospital or veterinarian or the infection may heal by itself. To get accurate data on SSI, surgical patients need to have a proactive follow-up.

To initiate local improvement processes for surgical outcomes, in the first quarter of 2016, QualiCura focused on SSI, and a survey of SSI incidence was launched including an investigation of risk-factors. The AniCura hospitals were requested to record certain

surgical parameters and then to check up on surgical patients after surgery through visits, telephone calls or emails. If the surgical wound had not healed as expected, it had to be sampled for bacteriology culture and susceptibility testing. The bacteriological result is essential because it gives information about the causative agent and if the antimicrobial prophylaxis is correct. In addition, compiled bacteriology results can reveal an outbreak at an earlier stage and thus be handled more promptly. This is the first multi-centred survey on SSI performed across several European countries within a companion animal health care group.



Securing proper infection prevention and control

Infection prevention and control is an essential tool to reduce the risk of microorganism transmission including multi-drug resistant bacteria in health-care settings, and thereby minimising the risk of patients visiting AniCura hospitals to develop a health-care associated infection. An infection control program is a preventive measure, designed to protect patients, but also to reduce the spread of infectious agents to pet owners, veterinary personnel and the community. This has been in the last decade an increasingly important focal point for hospitals within AniCura. Already in 2011, joint AniCura guidelines were discussed and disseminated to complement the local on-going infection control programs in the hospitals. As AniCura has grown, the best-practice guidelines have been updated and disseminated in countries outside Sweden. New guidelines were completed in the beginning of 2016 and approved as AniCura's Infection Control Program by AniCura's Scientific Council.

Every animal hospital within AniCura must have an infection control program and Group guidelines are meant to be a support for the development of local programmes. The program is coordinated by one or more members of staff, so-called infection control practitioners (ICP). They are the local resource for infection control issues and they are appointed by hospital management. In AniCura guidelines, there are also protocols on how the following work should be carried out to minimise spread of micro-organisms:

- Tasks and mandates of ICPs
- Personal appearance
- Hand hygiene
- Personal protective equipment
- Laundry
- Cleaning and disinfection of environmental surfaces
- Cleaning and disinfection of medical reusable equipment
- Surgery
- Dental procedures
- Patient handling including work at isolation area or ward
- Surveillance of health-care associated infections
- Staff compliance measurements

The activities mentioned above are to be documented, and together form a local written infection control manual for all members of staff to recognise and comply with. If the local activities significantly deviate from AniCura's Infection Control Program, an improvement plan is to be made and implemented by the ICPs.

In AniCura's Infection Control Program, we communicate the importance of frequent use of alcohol-based hand sanitiser. Research* shows that good hand hygiene is the single most important preventive measure to stop transmission of micro-organisms. Use of alcohol-based hand sanitiser is more effective compared to washing with soap and water; in killing or removing microorganisms and in maintaining hand health and skin integrity.

* "WHO Guidelines on Hand Hygiene in Health Care"

Promoting patient medical record quality

Proper medical record documentation facilitates diagnosis and treatment and communicates pertinent information to colleagues within the same hospitals or at referral hospitals to ensure patient safety and reduce medical errors. The complexity of the patient medical record has evolved in line with the development of more comprehensive and advanced diagnostic and treatment options, making the process of completing the patient medical record more challenging and increasingly important.

QualiCura focuses on patient medical record quality by emphasising the following key points:

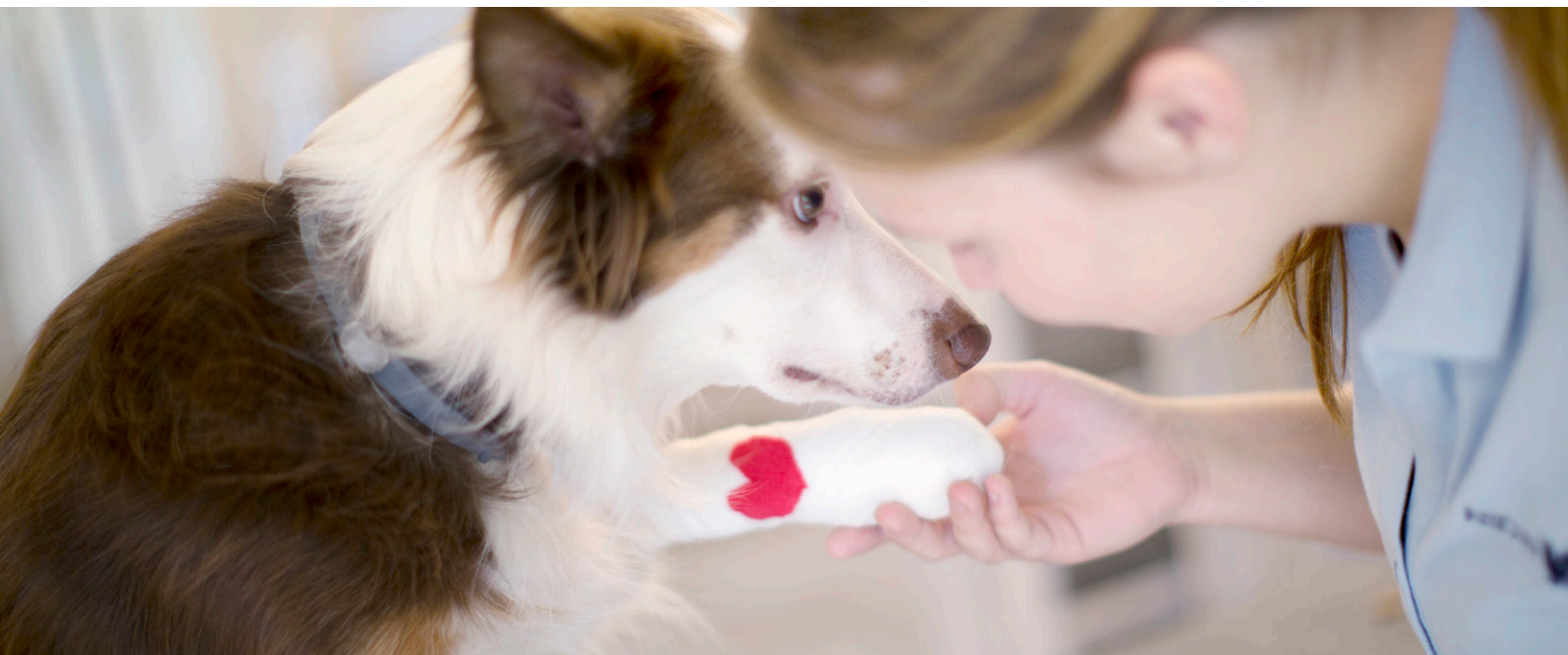
- Update or complete the patient medical record without any unnecessary delay adjacent to the consultation or the medical procedure performed
- Document every action related to the patient's medical status
- Organise the medical record in a problem oriented structure

The goal of problem-oriented recording is to keep writing at a minimum and only record what is relevant to the patient's health problems and important for communication and continuity of care. A problem-oriented approach is especially useful for records of patients with multiple diseases that are observed during long-term follow-up.

PATIENT MEDICAL RECORD REVIEWS

To identify and disseminate best practices within patient medical records, AniCura animal hospitals are encouraged to perform regular reviews of their records at staff meetings. Reviewing normally comprise randomly chosen records, as well as selected cases e.g., new diseases, new diagnostic or treatment procedures, morbidity and mortality rounds, etc.

Medical record quality is a focus area within QualiCura and is being measured and discussed in more detail across AniCura during 2016.





Enabling good incident handling

An incident is an unexpected and unwanted occurrence that interrupts normal procedure or function. Depending on the circumstances, an incident may lead to damage, disaster, or loss with a possible or obvious negative impact on the patient safety, client satisfaction and/or working environment. Human resources issues related to staff interactions and work conflicts are not included and are handled by other procedures.

The reasons for focusing on incident handling procedures at AniCura hospitals are to ensure the existence of procedures for restoring normal service operation as quickly as possible and minimise the adverse impact. The aim is to ensure the best possible levels of patient safety and client satisfaction, as well as working environment. Well-functioning

incident handling procedures will improve the general performance and reduce the need for “firefighting” by applying root cause analysis after undesirable events are experienced.

According to a QualiCura survey conducted during 2015, 54% of measured AniCura hospitals (representing 65% of patient visits) had some kind of incident handling procedure in place. QualiCura will support the sharing of best practice in this field, and encourage additional clinics to start working with incident handling procedures. Best practices identified within AniCura should describe the sequence of steps that begin when an incident reaches the staff and ends with implementing needed corrective actions, but should also be designed to require as smooth administration as possible.



External controlling bodies

In addition to the comprehensive internal quality improvement work AniCura's animal hospitals perform within or outside the QualiCura program, the veterinary medicine field in which AniCura operates is governed and controlled by various external and governmental bodies. These structures are different in each country, with varying modus operandi and degrees of transparency.

AniCura welcomes external bodies, and cooperates with these in all countries, e.g., Ansvarsnämnden (*Sweden*), Rettsrådet (*Norway*), Forbrugerklagenævnet (*Denmark*), various veterinary chamber bodies (*Germany, Austria, Switzerland*) and VTC (*the Netherlands*). Most of the above bodies do not disclose rulings publicly, but in the case of Sweden, Ansvarsnämnden's rulings are non-confidential and can be broken down as follows (rulings provided at meetings held during 2015):

■ Revoking license	0
■ Warning	5
■ Admonition ("Erinran")	15
■ Acquittal	63

No veterinary professionals in AniCura Sweden received a warning. Two veterinary

professionals received admonitions during the year. These have been handled locally, and commensurate measures have been identified and implemented to minimise the risk of the incidents occurring again.

Providing high level veterinary care in many varying situations to more than a million patients a year unfortunately means that mistakes sometimes are made. This requires well established and systematic incident handling procedures. AniCura is confident that its QualiCura programme and the activities set forth in this report leads to higher patient safety and medical quality.

In addition to the above, several AniCura clinics participate in the various quality oriented schemes managed by the national veterinary organisations in each country, such as "Svensk djursjukvårds kvalitetssigill" (SE), "Norske Veterinærforenings sertifiseringsordning for dyreklinikker" (NO), "Gute Veterinärmedizinische Praxis" (DE), "Centraal Kwaliteitsregister Dierenartsen" (NL), etc. AniCura encourages animal hospitals that in addition to the internal quality work wish to have it externally recognized and tested in their respective markets.

Future development of program

This AniCura Quality Report is mainly focusing on already ongoing initiatives within AniCura. Every day, every hour, we are getting smarter on how to structure and systematise our quality programs and improvement projects. AniCura is a learning organisation, and future prospects within the area of systematic quality development are exciting and full of opportunities.

Our ambition is to be the leader within high-quality veterinary care. AniCura is striving for quality excellence by continuously challenging, analysing and improving the way we work. We believe that continuous quality improvement is an ongoing effort that requires transparency, teamwork and integrity. By cooperating, sharing knowledge and best practice we benefit from the latest available findings, and realise new ideas earlier.

We value input from colleagues within and outside AniCura, and welcome innovation and apply resourcefulness when faced with new challenges. The journey of improving quality was started a long time ago in AniCura's many animal hospitals. When we now have the opportunity to work together in a larger setting, we witness over and over again how we inspire and help each other to progress and to develop faster and more accurately than before.

Looking ahead and bolstered by the positive feedback we are receiving, AniCura will continue to explore and develop the QualiCura program as we analyse our learnings and seek to push the boundaries even further. Working with quality improvement is an ongoing process involving all our animal hospitals and members of staff, every day, every hour.



About AniCura

AniCura is a family of well-known animal hospitals and clinics specialised on veterinary care for companion animals. Born out of the idea that sharing resources creates opportunities for better veterinary care, the company was established in 2011 as the first merger of companion animal hospitals in the Nordic region. Today, AniCura is a role model within specialised veterinary care and a valued partner for pet owners and referring veterinarians across Europe.

The company offers a wide range of high quality medical services covering preventive and basic health care as well as advanced diagnostics, internal medicine, intensive

care, surgery and orthopaedics. AniCura also provide rehabilitation, physiotherapy and dietary advice and offer selected pet food and care products.

For information on how AniCura is working to shape the future of veterinary care, please visit our website www.anicuragroup.com



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