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Rebecca's career as a veterinary nurse began in 2002 at a first-opinion mixed practice with an orthopaedic surgeon on site. Following qualification she went on to work at two further practices before finally working in a large, small-animal practice as the orthopaedic nurse. Rebecca's interest in rehabilitation of post-surgical care cases dates from that time. At this point she worked part-time at Hawksmoor Hydrotherapy Rehabilitation Centre and while working here Rebecca completed Diplomas in both Animal Physiotherapy and Hydrotherapy for Small Animals. She is now the Senior Hydrotherapist and Physiotherapist at Hawksmoor, where she treats a multitude of pre- and post-surgical cases as well as those with osteoarthritic and neurological conditions. She is also a member of the committee for The International Association of Animal Therapists (IAAT) and lectures to student physiotherapists and hydrotherapists.

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Hydrotherapy and physiotherapy: what the RVN should know

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Introduction

The subject of hydrotherapy and physiotherapy for animals is a controversial one at the best of times. The Royal College of Veterinary Surgeons (RCVS) and Department for Environment, Food and Rural Affairs (DEFRA) are currently working together to review Section 19 of The Veterinary Surgeons Act 1966 and The Veterinary Surgery (Exemptions) Order 1962. These stipulate that a veterinary surgeon must diagnose and treat animals and, once a suitable diagnosis has been made, they may then refer onto other individuals to provide specialised treatment such as hydrotherapy and physiotherapy.

Hydrotherapy

Hydrotherapy rehabilitation is based on the principle of providing safe and effective aquatic exercise in a controlled environment. The Veterinary Surgeons Act (1966) classes hydrotherapy as a non-manipulative form of physiotherapy. Hydrotherapists are classed as veterinary paraprofessionals so there is an expectation that they will uphold professional standards and ethics at all times (**Figure 1**).

Although at present there is no specific legislation relating to the practice of hydrotherapy, the Canine Hydrotherapy Association (CHA) and the National Association of Registered Hydrotherapists (NARCH) both have codes of conduct/practice that their members must adhere to in order to maintain high standards in the workplace. These codes of practice also promote the appropriate use of canine hydrotherapy to dog owners, veterinary surgeons and others, and to aid greater understanding of the use of hydrotherapy to promote canine welfare. Clients should not be referred to centres where unqualified staff undertake therapy, and owners with pets requiring treatment should be directed to a hydrotherapy centre that fulfils the following criteria:

- The hydrotherapists have gained at least a Level 3 Certificate in Hydrotherapy for Small Animals
- They are fully insured to treat patients
- Additionally, they should be members of either the CHA or the NARCH.

Practical considerations

The guidelines stipulate that patients must wear a suitable life jacket or harness when swimming in a hydrotherapy pool and on a treadmill, although a flat collar and lead may be used on the aquatic treadmill depending on the patient's condition. Patients must also access the water slowly and in a controlled manner, assisted by the hydrotherapist. They should never be allowed to jump off the side of the pool or ramp into the water in order to reduce the risk of injury when hitting the water as well as minimising the ingestion of water. As previously stated, hydrotherapy is controlled exercise in water and so any activity that is not fully controlled cannot be termed hydrotherapy (**Figure 2** and **Figure 3**).

Trained hydrotherapists will never engage in the practice of swimming multiple dogs at the same time as this may lead to the dogs being treated becoming frightened or anxious. One dog in the swimming pool, or on the treadmill, at a time is essential in order to ensure that the patient is receiving the best treatment possible. If

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Figure 1. Dogs receiving hydrotherapy treatment must have a hydrotherapist in the water with them to support and assist them during their treatment

a dog becomes anxious or frightened the sympathetic nervous system will trigger the release of adrenaline which blocks critical pain pathways. This practice will be potentially detrimental to the patient's condition and cause it to experience unnecessary stress, resulting, at the very least, in an unproductive hydrotherapy session. Equally, owners should not be allowed in the pool with their pet, as the practitioner should not be expected to monitor a patient during treatment while also monitoring the owner's safety.

A lot of dogs enjoy toys as motivation (**Figure 4**); however, if used incorrectly, these may compromise the safety of the patient. Knowing the correct way to use these motivational tools is crucial as, if a dog's mouth or, even worse, head goes below the water line, this is NOT hydrotherapy.

Secondary drowning is a major concern as, unless monitored closely, within a very short space of time, a patient could inhale a large amount of water into its lungs.

Figure 2. Patients are also assisted from within the aquatic treadmill as necessary; once the patients are strong enough, they may be assisted from outside the treadmill tank

These patients may initially recover from the insult and behave normally, misleading owners into believing that their pet does not require veterinary attention; however, the effects of secondary drowning can occur up to three days after inhaling water. After initially appearing normal, the dog will become distressed and the owner will notice signs including coughing, difficulty breathing, weakness and fluid coming from the nose or mouth. These signs can range from mild to severe and, in the latter cases, death can occur due to respiratory distress.

Physiotherapy

A veterinary physiotherapist's job is to aid the healing of the body, and this means working with a number of different tissues including the skeleton and soft tissue. Physiotherapy is seen as a manipulative therapy and includes osteopathy and chiropractic. Veterinary physiotherapists use the same sort of equipment as human physiotherapists and most of the techniques used on people are transferable. A variety of tools may be implemented to assist with rehabilitation including therapeutic ultrasound, pulsed magnetic field therapy, phototherapy, physiotherapy balls, wobble cushions and muscle stimulators (**Figure 5**).

The benefits associated with physiotherapy and rehabilitation, after surgery or injury, are becoming increasingly apparent within the veterinary profession. However, it is essential when planning to refer a patient or to develop expertise in the discipline that the best possible standards of practice are achieved.

Life as a veterinary physiotherapist involves working under veterinary referral in order to provide treatment and rehabilitation for animals. The successful physiotherapist will have the ability to:

- communicate with the referring veterinary surgeon, other colleagues within the practice team, owners and, most importantly, animals
- design and implement individual programmes for rehabilitation
- safely and effectively carry out appropriate treatment using physiotherapeutic equipment and specialised manual techniques

The demographic within veterinary physiotherapy is much more diverse than people imagine. People from many

Figure 3. It is vital to control exercise in the hydrotherapy pool to treat patients correctly and achieve a positive outcome

different backgrounds decide to become physiotherapists including veterinary nurses, people from a variety of equine backgrounds and therapists in related fields.

The veterinary nurse's role in physiotherapy and hydrotherapy is vital to an animal's rehabilitation, particularly straight after surgery has been performed. The sooner rehabilitation can commence, the more likely it is that a positive outcome can be achieved. However, as physiotherapy and hydrotherapy are only covered superficially in the veterinary nursing syllabus, additional training would be required in order to pursue a career in the discipline.

Figure 4. Toys must be used correctly during hydrotherapy sessions

Hydrotherapy and physiotherapy training

In theory, anyone can "swim" a dog, but it takes someone who is caring, dedicated and has a passion to train and achieve an appropriate level of qualifications in order to become a professional hydrotherapist.

To qualify as a hydrotherapist you must complete at least a Level 3 Certificate in Hydrotherapy for Small Animals and there are various ABC-accredited training providers throughout the UK. Applications for the courses are accepted all year round and some previous animal-related experience is a necessary prerequisite. All the units within the Level 3 Certificate are mandatory and a total of 29 credits is required to achieve a successful outcome. Registered veterinary nurses may be eligible for remission from some the modules on these courses as some of the material will have been covered in the veterinary nursing syllabus. The modules in the Level 3 Certificate in Hydrotherapy for Small Animals can be found via the ABC website or by searching for hydrotherapy training providers.

Hydrotherapy must never be provided unless the individual doing so holds at least a Level 3 Certificate in Hydrotherapy for Small Animals. This is particularly important as there are currently no laws regarding training, qualifications or regulations, so anyone can call themselves a hydrotherapist.

Once the qualification has been achieved, students usually go on to work in an established hydrotherapy centre, although some may decide to set up their own business. These centres will then only treat patients following referral from a veterinary surgeon. A full assessment will initially be carried out before constructing a suitable rehabilitation plan tailored to the individual patient. The centre will then update the referring veterinary surgeon as well as any other colleagues involved in the patient's care – for example, physiotherapists, chiropractors and behaviourists – to ensure that everyone is kept up-to-date with the patient's progress. This

Figure 5. Practical physiotherapy techniques include stretches and passive range of motion exercises

is all part of being a good member of a multi-disciplinary team.

There are also a number of different training routes and qualifications available in physiotherapy:

- The College of Animal Physiotherapy offers a Diploma in Animal Physiotherapy, which covers treating dogs and equine patients. More information can be found at www.tcap.co.uk
- Harper Adams University offers a degree in Veterinary Physiotherapy. More information can be found at www.harper-adams.ac.uk and www.navp.co.uk
- Canine and Equine Physiotherapy Training provides a two-year course accredited by Middlesex University, leading to an Advanced Certificate in Veterinary Physiotherapy. More information can be found at www.ceptraining.co.uk
- Warwickshire College, Moreton Morrell Centre, offers a degree in Veterinary Physiotherapy. More information can be found at www.warwickshire.ac.uk

Applications to some of these training centres can be accepted all year round and formal interviews are usually required in order to gain a place.

It is essential that RVNs research training providers if they want to train as a physiotherapist in order to find the most appropriate courses for them. It is also a good idea to take a relevant CPD course or obtain work experience with rehabilitation experts in order to be sure that this is what you want to do. It should be remembered that a short course on its own does not mean that you are qualified to treat patients with this modality.

Conclusion

RVNs are well-placed to embark on training of this nature as they have knowledge of most of the orthopaedic and age-related conditions that affect the animals that will be referred for treatment, and are also aware of the various medications that may be prescribed for treatment of these conditions. For those readers who wish to find out more about physiotherapy and hydrotherapy, the details of a number of organisations involved with veterinary physiotherapy may be found at the end of the article.

Useful websites

- Association for the Scientific Study of Veterinary and Animal Physiotherapy (ASSVAP) www.assvap.com
- Canine and Equine Veterinary Physiotherapy Training www.ceptraining.co.uk
- Canine Hydrotherapy Association www.canine-hydrotherapy.org
- Hawksmoor Hydrotherapy Rehabilitation Centre www.hawksmoorhydrotherapy.com
- International Association of Animal Therapists (IAAT) www.iaat.org.uk
- National Association of Veterinary Physiotherapists (NAVP) www.navp.co.uk
- The Association of Chartered Physiotherapists in Animal Therapy (ACPAT) www.acpat.org
- The College of Animal Physiotherapy www.tcap.co.uk
- The Institute of Registered Veterinary and Animal Physiotherapists (IRVAP) www.irvap.org.uk
- The National Association of Registered Canine Hydrotherapists www.narch.org.uk

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Further reading

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