Senior Rabbits
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Abstract
This lecture focuses on nursing care of senior rabbits, looking at the ageing process and problem areas for senior rabbits.

Learning Outcomes
- Understanding of different problem areas for senior rabbits
- Confidence in nursing senior rabbits
- Confidence in advising clients on care of their senior rabbits.

Notes
Developments in veterinary health and understanding of welfare needs mean that rabbits are expected to live longer than just a 10-15 years or so ago. Owners are now demanding a higher standard of care for their rabbits. As a result senior rabbits with age related problems are now a common presentation to the veterinary practice.

What is classed as a senior rabbit?
All rabbits are individuals and age differently. Some breeds are deemed ‘senior’ earlier than others. Certain rules can be applied but are open to negotiation and are not blanket rules which can be applied to every rabbit.

Small breeds: such as Netherland dwarfs, Polish, Mini lops and rabbits under 2kg in weight may not be classed as ‘senior’ until after 8 years of age. These rabbits may have a life expectancy of anything into their teenage years.
Medium breeds: Dwarf lops, Dutch rabbits and those between 2-4kg are generally classed as ‘senior’ from 6 years of age. These rabbits can commonly live past 10 years of age. This is the group that most pet rabbits fall into as the Dwarf lop and Dutch breeds are two of the most commonly kept as pets in the UK.
Large and giant breeds: These rabbits can be any breed or crossbreed over 4kg and could range to over 10kg. The Continental giant, Belgian Hare and New Zealand White all fall into this category. Like giant dog breeds these rabbits have a shorter life expectancy with 4-7 years often being the upper end. These large rabbits are often classed as ‘senior’ as early as 3-4 years of age. However, these are all general guidelines and some rabbits may show signs of aging sooner than others, and therefore the individual rabbit should be assessed and considered rather than just simply generalising and categorising by age alone.

The aging process
Signs of ageing may include:
- Thinning fur and colour change
- Slower movements and less agile
- Venturing shorter distances
- Resting more often during normally active times (rabbits are crepuscular so most active at dawn and dusk)
- Changes in eating and drinking habits
Some rabbits will exhibit such signs; others won’t. Every bunny is a distinct individual—and the pattern of aging will reflect his or her physical constitution and temperament.

Rabbits have many predators, of which humans are one. If you are a rabbit, there are a lot of dangers in life – rabbits are a lot of predator’s dinner. As a prey species rabbits have evolved to conceal signs of pain, illness and weakness for as long as possible. It is often easy to miss signs of old age, and perceive the rabbit as simply ‘slowing down with age’.

**Problem areas for senior rabbits**
Senior rabbits are more likely to suffer from the following age related problems:

**Osteoarthritis and spondylosis:** Osteoarthritis is the general term given to the inflammation of joints and can affect any joint within the body. Also known as degenerative joint disease (DJD), it is a chronic condition that causes the cartilage surrounding the joints to deteriorate. This is often mistaken as ‘slowing down with age’. Many rabbits suffer with OA but owners often believe this is a natural progression of age and don’t seek veterinary treatment. Osteoarthritis can occur naturally as rabbit’s age. General wear and tear on the joints over the course of time, especially if the joints are put under extra strain (i.e. large breeds of rabbit, fat/obese rabbits or those with missing limbs), will exacerbate over time and cause the joints to wear quicker than they would under normal circumstances. Another cause of osteoarthritis may include injury to the joint earlier in life. OA is painful and can be debilitating.

Clinical signs may include: an abnormal hop, veering off to one side when hopping, an inability to keep their back end clean, flaky skin due to inability to groom, loss of litter training and not using ramps to and from the hutch. Symptoms may improve slightly in warmer, dry weather and worsen in damp and chilly conditions or after sitting still for long periods of time.

Diagnosis of osteoarthritis may be done based on an assessment of past symptoms, such as decreased activity or stiffness, as well as a physical examination which will reveal a decreased range of movement, stiff-legged gait, deformity of the joints, and swelling or pain in the joints. Further diagnostic procedures may include radiographs, but often owners may not want to opt for these and treat to see if improvements are seen.

Medication can often help to improve movement and discomfort. Non-steroidal anti-inflammatory drugs (NSAID’s) are the mainstay of treatment with Meloxicam the easiest to use on rabbits due to its liquid formula. Other analgesia may also be used alongside NSAID’s such as Tramadol. Ranitidine may be needed for its anti-ulcerative properties, but rabbits are generally not affected like dogs and cats on NSAID’s long-term.

Many senior rabbits, especially arthritic ones, may require adjustments to their housing. Indoor rabbits may need rubber mats placing over slippery kitchen or laminate flooring so they can grip better when hopping around. Low sided litter trays are often needed, since the rabbit may struggle to hop in and out of high sided trays. Plastic dog beds make excellent litter trays for elderly rabbits; since they have an entrance cut out of them but still have high sides around the rest. Outdoor rabbits who have a two-story hutch, or hutch with a ramp into the run area may struggle to get up and down a ramp. Revising their accommodation may be necessary.

**Pododermatitis (sore hocks):** Elderly rabbits or those who are overweight put extra pressure on their feet, especially if they adopt a different stance due to osteoarthritis. Pressure sores may occur and can go right down into the bone if left untreated. They start with small bald patches on the feet and progress into ulcers/sores. House rabbits are often affected due to friction on carpets. It is important to ensure the rabbit has extra soft bedding and preferably
one that will draw urine away from the area (such as Vetbed). If the rabbit is overweight, then a suitable weight loss programme needs to be advised.

**Renal disease:** Chronic renal failure is being found in older rabbits. Much like other mammals the kidneys can lose 70% of function before any changes appear on bio-chemistry. There is often an underlying cause of chronic renal failure in rabbits with *E. cuniculi* being a common cause, since the parasite attacks the brain and kidneys. Signs of chronic renal disease include: increased drinking and urination, decreased appetite and weight loss. Treatment may include the administration of fluids, antibiotics if an infection is present and nutritional support. If an underlying condition is established then this will need treating. Increasing the rabbits throughput of fluid, by adding water onto vegetables and regular subcutaneous fluids may help with management at home.

**Uterine adenocarcinoma:** The most common type of tumour in unspayed female rabbits. Some studies suggest up to 80% of entire female rabbits will be affected by the age of 5 years. Clinical signs in the early stages include blood in the urine and the rabbit may not appear ‘right’. In the latter stages, weight loss, a sunken and enlarged abdomen, lessening appetite and respiratory problems may become apparent. By the time these latter signs are apparent treatment is often sadly too late and futile. Always advise to neuter female bunnies at an early age (from 5 months) – this completely removes the risk. In the early stages of the condition spaying may be curative if there is no spread – thoracic radiographs must be taken prior to commencing surgery to check for metastasis. In the latter stages there is often spread to the chest, and treatment is not possible – euthanasia should be recommended to these cases.

**Thymoma:** Much more common in older than young rabbits. Thymomas are tumours that come from the thymus; an organ found in the cranial mediastinum and is part of the immune system. Thymomas after normally slow growing but have the potential for local invasion into the lung and surrounding tissue and even metastasis to other organs. Due to their slow growing nature, clinical signs offer appear over a matter of time. Clinical signs of thymoma in rabbits can be quite variable and usually don’t occur until the mass has reached a large size. Signs associated with a thymoma mass include: Difficulty breathing which is likely to include mouth breathing, lethargy and the eyes may appear to bulge out of the skull. The neck, head and forelimbs are often oedematous. Symptoms are often non-specific and can be attributed to many other disease processes. X-rays or often CT scans are the choice method of diagnosis. Surgical removal of the tumour is often the treatment of choice, but is major surgery and it may not be possible to remove it in its entirety. If surgery is to be attempted detailed imaging is needed to assess the extent of the tumour and if it is likely to be operable. Surgery involves entering the thoracic cavity. The rabbit will need ventilating throughout, is likely to need a feeding tube post-surgery and the risks or surgical and post-surgical complications are high. Owners need to be aware of the risks involved. Radiation therapy has been used in the treatment rabbit thymomas. Thymomas are radiosensitive tumours but the closeness to the heart and lungs may limit the radiation dose that can be delivered. Side effects of radiation therapy can include: inflammation of the lung tissue and fibrosis may develop. Radiation therapy is used on rabbits who aren’t suitable surgical candidates. Surgical removal of the thymoma has a higher successful cure rate, but also a higher death rate during treatment. If no treatment is opted for, the rabbit is unlikely to live more than a few months and will require euthanasia before they begin to suffer unduly.
**Weight loss:** Some older rabbits may lose weight and body condition especially in the winter months and therefore require more calories. It is a good idea for owners to weigh their rabbit weekly and note any change in body shape or weight. These rabbits can have their pellet allowance increased, but care must be taken not to overfeed them and allow them to become overweight. These rabbits are likely to benefit from wintering indoors so they don’t use vital calories keeping themselves warm during the winter climate. Many food companies now offer extruded nuggets specifically manufactured for the dietary needs of senior/older rabbits. These are normally recommended from the age of 5 years. Generally senior rabbits do not require any form of supplementation. A good diet should provide all of the vitamins and minerals they require. Ad lib amounts of hay and a good quality pellet/nugget, plus a daily supply of fresh greens/weeds is a suitable diet.

**Muscle wastage:** Many older rabbits suffer from muscle wastage especially on their hind legs – this is often due to osteoarthritis and the altered gait of the rabbit. Inactivity is an aggravating factor in the condition and it becomes a vicious circle whereby the rabbit doesn’t move around as much so the muscles waste, and when the muscles waste the rabbit doesn’t move around. They may suffer in both hind legs or just one. *E. cuniculi* can also cause hind limb paresis. Passive movement physiotherapy and active movement are likely to help to keep the joints supple. Treating an underlying cause, such as osteoarthritis and/or *E. cuniculi* is imperative otherwise the condition will continue to deteriorate. The muscle wastage already lost is unlikely to be reversed, but further muscle wastage or slowing down the process may be possible to continue to allow the rabbit to get about for a long as possible.

**Overgrown claws:** Senior rabbits are often less active than their younger counterparts and may require their claws to be clipped more frequently as they will not be naturally wearing them down. Owners need to monitor their rabbit’s claws especially the dew claws on a weekly basis and can be shown how to clip them at home but may prefer to bring them into the surgery for a vet or nurse to clip.

**Loss of a companion**
Rabbits that lose a companion are likely to grieve, especially if they have lived with the other rabbit all their life. Depression, lack of appetite, hiding away and running away from people are all common signs that rabbits exhibit when grieving. Senior rabbits that have lost a companion or have never had one are normally accepting of a new bunny friend (with appropriate bonding), so a suitable companion should be sought as soon as possible. Rescue centres are often looking for homes for older rabbits. These are all normally already neutered and vaccinated and some rescue centres will also offer a bunny bonding service. For a variety of reasons it is not recommended that guinea pigs and rabbits are kept together.

**Quality of life**
This is always an emotive subject and one that needs approaching with caution. The decision to pursue additional medical treatments or consider euthanasia for a chronically ill rabbit is a hard decision to make for many pet owners. Old age in itself is not a disease and cannot be treated or cured. All underlying problems need assessing and an overall quality of life decision made.
**Appetite:** The rabbit’s appetite can give many clues about how they are feeling. Rabbits should enjoy their food and be able to eat pain free. The following points should be considered:

- Does the rabbit eat their normal amount of food?
- Is the rabbit dropping food or having obvious difficulty eating it?
- Does the rabbit seemingly want to eat but seems unable or unwilling to do so?
- Will the rabbit eat their favourite treats?
- Is the rabbit’s weight stable?

If owners are answering yes to any of the above then hand feeding, syringe feeding, softening pellets, prokinetic medication, or offering more appealing foods may be necessary but ultimately the rabbit has to be able to maintain their body weight and shouldn’t be allowed to ‘waste away’.

**Hydration:** The rabbit’s hydration status is equally as important as appetite. Without adequate water consumption, the rabbit will rapidly become dehydrated and go into gastrointestinal stasis.

The following points should be considered:

- Is the rabbit drinking less than normal?
- Is the rabbit drinking more than normal?
- Does the rabbit ‘play’ with its water bottle, but doesn’t drink the water?

If owners have answered yes to any of the above then they may want to add water onto vegetables to increase the water content of the diet, give subcutaneous fluids, offer a water bowl if a bottle is normally given.

**Pain:** Being able to manage pain to an acceptable level is essential. It is not acceptable to leave a rabbit in uncontrolled pain. Always assume that something is painful for a rabbit if it is for us.

Rabbits will not show obvious signs of pain until it is advanced.

The following should be considered:

- Does the rabbit have a visible limp or odd gait?
- Is the rabbit’s respiration rate increased even when resting?
- Does the rabbit tooth grind in a painful way?
- Is the rabbit trying to chew or lick excessively at one area?
- When touched on a certain body part does the rabbit flinch or resent the attention?
- Does the rabbit have trouble sitting or lying comfortably?
- Does the rabbit press his/her abdomen on the ground frequently?
- Are any lumps ulcerated, bleeding or interfering with the rabbit’s daily life?

If owners are answering yes to any of these questions, then their current analgesia needs reassessing, increasing or altering as the rabbit is painful.

**Grooming:** Rabbits are naturally clean animals and dislike the feeling of being dirty. They will spend a long time each day grooming and also mutual grooming of companions. Rabbits who don’t feel well will not maintain their coat.

The following points need to be considered:

- Has the rabbit been observed to be grooming less than normal?
- Does the rabbits coat look unkempt and scruffy?
- Is there any discharge from the rabbits eyes and nose?
- Is there any faecal or urine contamination around the rabbits back end or on their fur?
- Are there any pressure sores, especially on the soles of the hind feet?
If owners answer yes to any of the above then the following may help: regular brushing and grooming, frequent bedding changes, adequate padding on the floor to prevent pressure sores, cleaning and treating any wounds, treatment of any underlying causes.

**Mobility:** Changes in normal activity can be due to mobility problems, pain or illness. The following should be considered:
- Does the rabbit struggle to get up after lying down?
- Does the rabbit struggle to get in and out of their litter tray?
- Does the rabbit struggle to in and out of their run/enclosure/hutch etc?
- Does the rabbit no longer play with toys?
- Is the rabbit less active than previously?
- Does the rabbit fall to one side?

Possible interventions for yes answers: pain medication addition or adjustment and physiotherapy.

**Mental status:** An important aspect to consider is the rabbit mental status and happiness. Points that need to be considered:
- Does the rabbit get excited at meal times, to see their companion, when having treats etc?
- Does the rabbit binky?
- Does the rabbit recognise their name or other words that they have previously?
- Does the rabbit enjoy playing?
- Is the rabbit alert?

All happy rabbits will exhibit signs of happiness. Rabbits that have lost interest in these things are likely to be suffering to some degree.

**Behaviour:** Changes in normal behavioural patterns are often a key indicator of how well a rabbit feels. The following should be considered:
- Does the rabbit hide away more than they used to?
- Does the rabbit sleep more than usual?
- Is the rabbit pleased to see you?
- Has the rabbit distanced themselves from their companion or had a recent fight?
- Is the rabbit interested in sounds and things around them?

Rabbits should behave like rabbits – be inquisitive and interested in their surroundings.

**Owner perceptions:** Many times an owner is aware that their rabbit is suffering but does not want to give up on them. Consider the following:
- Would the owner want to live as their rabbit does?
- Would this be a painful condition in people?
- Has the owner considered euthanasia before but not been able to go through with it?
- Is the rabbit of special sentimental need to the owner?
- Does the rabbit have more bad days than good days?

**Deciding on an acceptable quality of life:** Many owners do not want to feel that they kept their rabbit alive for too long, but often the guilt of putting them to sleep means they cannot contemplate euthanasia. Unfortunately, there isn’t a simple point system or scale that will tell the owner exactly what do for their rabbit. However, the more answers they have that show that the rabbit isn’t enjoying life, the more likely it is that the rabbit has a poor quality of life and euthanasia.
needs to be seriously considered since the rabbit is likely to be suffering more than is acceptable.

Senior bunnies are wonderful and should be treasured. Their personalities shine through, and their aging faces and grey hairs make them more endearing. With special considerations given to their needs, they can live full and active lives for many years.