Specialised Small Animal Housing

There are some types of small animal accommodation whose design depends on specific considerations necessary to the purpose of the accommodation; for example easy access in hospital kennelling, control over temperature and air gas concentrations in ICU kennels, temperature control in puppy and whelping kennels, and housing of large numbers of animals in training kennels.

Quarantine and Isolation kennels are similar concepts in that they are both specifically designed to separate and segregate animals to prevent disease transmission. This can be either to protect an immune suppressed patient, protect other animals from infectious patients, or to eliminate the possibility of any disease transmission in quarantined animals.

Isolation kennelling

Disease causing organisms are present everywhere in the environment, and are especially concentrated in hospital wards. One way to reduce this contamination is to separate the most infectious patients from the main ward, and house these animals in an isolation ward.

Animals are typically moved into isolation if they display symptoms of (or have been diagnosed with) a particularly contagious disease such as parvovirus diarrhoea or cat flu, while being kept in another type of kennel (such as boarding kennel or hospital ward). It is very important that isolation facilities are available in every type of housing; as a rough guide there should be one isolation kennel for approximately every 50 dog kennels or 30 cat kennels. The isolation kennels should be in a different room to the other kennels, and separated from each other to prevent disease transmission by sneezing. Effective barrier nursing should be observed to prevent patient cross-contamination by staff.

The principle of barrier nursing is designed to eliminate cross-contamination between patients, and includes the following measures:

- Wherever possible, a member of staff should be specifically assigned to the isolation area (and ONLY the isolation area).
- Foot bath, hand washing and change of protective clothing should be provided at the entrance/exit of the isolation area.
- Separate bins, water and feeding facilities and cleaning apparatus should be used in the isolation area.
- Disinfectants known to be active against the diseases concerned should be used to clean everything in the kennels.
- Staff working with other animals should be especially cautious when working with high risk diseases.

Quarantine

The use of quarantine to determine an animal’s disease status before entry into the country has long been the most important method of keeping the UK free of certain diseases, but has declined in use due to the recent introduction of the pet travel scheme:

Quarantine kennels are legally required to detain animals for a period of six months, with no possibility of escape and no possibility of contact with other animals either directly or indirectly via contact with other animals’ urine or water dishes etc (except that up to 3 animals from the same household may be kept together). Adequate security and fire precautions to comply with local regulations are a part of this legal requirement. If the premises are owned by a lay person, a veterinary surgeon must be appointed as ‘superintendent’ and visit the premises daily (except on Sundays when he must still be on call in case of emergency). In addition, all staff working in the kennels must be instructed on the dangers of rabies. There is a compulsory code of practice for the welfare of animals in quarantine available from the DEFRA website:

http://www.defra.gov.uk/wildlife-pets/pets/cruelty/

Transfer of animals from the ferry terminal or airport must occur via an authorized carrying agent in a special vehicle and container, and a high security enclosed yard used to transfer the animal from the vehicle into the kennels.

All animals arriving into quarantine should be vaccinated against Rabies (regardless of their current vaccination status) within 24 hours of arrival, and should be adequately identified and kept together with their documentation at all times. Clear identification on the kennels, as well as recording all movements, visits and health checks is also necessary.

All the quarantine kennels should be in the same high security building, with at least one impenetrable perimeter fence surrounding the building. All entries and exits to the facility should be double doors (where only one door is opened at a time), and should have disinfectant soaked mats for visitors to step on. Entry of people to the facility should be restricted as much as possible, with visiting owners being supervised at all times (visits would not normally be allowed in the first 14 days of quarantine).

Individual kennels must also have double doors for secure entry, transparently roofed runs (wire mesh or Perspex is suitable), impervious divides between kennels, and be of a suitable size. For the divides, regulations state that an impervious, smooth, hard material (metal is most suitable) should be used up to a height of 45cm for a small dog or 61cm for a large dog, with clear ‘nose and paw proof’ material (either clear Perspex or a double layer of wire mesh separated by a 15cm gap) above this. Cat accommodation must be of the ‘walk in’ type, with a roof and partitions to prevent spitting at each other.

Suitable sizes for quarantine kennels are as follows:
- Small dogs – sleeping area at least 1.1m², run at least 3.7m²
- Medium sized dogs – sleeping area at least 1.4m², run at least 5.5m²
- Large dogs – sleeping area at least 1.4m², run at least 7.4m²
- Cats – total floor area of at least 1.4m²

The height of any kennel should be at least 1.8m

**Hospital Kennelling**

The purpose of hospital kennelling is for the short-term housing of animals during post-operative convalescence and during periods of ill health. As such, the kennels are often deliberately restrictive in size to prevent unnecessary compromise of surgical wounds etc by excessive movement of the animal. This allows all of the kennels to be kept in a smaller area, which allows
the high degree of supervision necessary for many patients. For longer term housing where the animals do not need to be so heavily supervised or confined, a larger kennel should be used.

Typically, hospital wards consist of a mixture of two different types of kennelling system; walk-in and locker type kennels. The choice of type of kennel (and kennel size) will depend on the size, temperament and health of the individual patient.

Walk-in kennels are usually approximately 1m wide by 2m deep, and extend from the floor to the ceiling. They allow much better access to patients by staff, and are suitable for longer term confinement of an animal, but take up a significant amount of space to install and tend to be less easily monitored.

Locker type kennels consist of several rows of varying sized cages with solid (usually either brick or stainless steel) walls and floors and a transparent front (usually thick wire mesh). They allow a large number of varying sized animals to be kept in a small space, and are usually much easier to supervise than walk-in kennels. However, some dogs are too large to be kept in these kennels, and they are also inappropriate for long term kennelling.

Metabolic monitoring uses a special type of kennel where an animal can be housed over a period of few hours in an airtight container with a controlled gas input and output, so that the total amount of food/water/gas into and out of the patient can be measured to calculate the energy requirement of the animal or total metabolisable energy content of different foods etc. Such kennels are available in some practices, but are extremely restrictive and should not be used outside of the test time.

Intensive care unit (ICU) kennels are available in many hospitals for the housing of extremely sick patients. They are usually airtight to allow better oxygen and temperature regulation, and transparent to allow constant monitoring (an old human baby-warmer is often used).

Hospital kennels in veterinary practices are the only type of small animal housing that is not subject to any licensing regulations, as they are under the supervision of veterinary surgeons. However, it is still extremely important to ensure that all animals are kept in good quality kennelling, with all the correct environmental conditions that would be expected of any other kennel. For example, a surprisingly high rate of ventilation is often required in veterinary kennels because of the high density of animals present.

**Whelping / Puppy Kennelling**

Specific kennelling is needed to house the bitch (or queen) around parturition to allow the animal to feel secure, allow ‘nesting’ behaviour, reduce the chance of disease spread to the newborn pups/kittens, and for optimal temperature control. This can either be a temporary set up in a quiet corner of the animal’s own home, or can be a permanent fixture in a veterinary surgery or breeding kennel. The bitch/queen is only housed in the kennel for a short space of time, so the kennel should be just big enough to allow the bitch to stand, turn round, and lie down. There should also be a place for the pups/kittens to go with additional heating.

The kennel should be well enclosed, and kept reasonably dark. Where the kennel is more permanent, an observation panel for staff is helpful to allow monitoring without disturbing the animal. It is very important to maintain a warm environment, using additional heaters where necessary. The kennel should also be escape proof for the pups/kittens but allow the bitch/queen in
and out after parturition where the whelping area is in the animals own home. It is vitally important to ensure that the kennel is inaccessible to any other animals.

**Training Kennels**

Training kennels are specifically designed to house animals that are being trained for use by the police, customs, security, guide dogs for the blind, and hearing dogs etc. Generally, all the animals involved are kept long term, are of a known good temperament, are relatively familiar with each other, and are known to be disease free. These factors mean that some of the isolation requirements of standard boarding kennels are not necessary, allowing for a larger number of animals to be kept in the same space using an ‘H’ block kennel design.

H-Block kennels consist of four main kennel blocks arranged around a central service area with the service corridor running in between the sleeping area and run area of the kennels. To save space there is typically only 1 run area for every 2 sleeping kennels, with the dogs being let into the run area one at a time during the day. The design system is more compact than other types of kennel block, is easier to manage due to the more centralised services and access, and allows efficient accommodation of large numbers (80+) of dogs. Disadvantages of this system are that the dogs come into contact with each other far more frequently (causing problems with disease control and aggressive dogs), each dog cannot see any other animals from its sleeping compartment, the animals are not free to move between their sleeping area and run area on their own, and the buildings are
large and expensive to set up. H-block kennels are unsuitable for any type of kennelling other than for training establishments.

**End of Section**

That’s the end of the section on Specialist Small Animal Housing.