Kelly Druce BSc(Hons) RVN DTLLS

Kelly qualified as a VN in 2001 and later completed the BSc top-up in veterinary nursing, gaining a first-class honours degree. She has a keen interest in feline internal medicine and domestic animal behaviour. In 2005 she gained the Improve International Nurses Certificate in Animal Behaviour and in 2007 the Improve International Nurses Certificate in Advanced Anaesthesia. Kelly worked as a nurse, assessor and internal verifier in practice until 2008 when she left to pursue a career in teaching, and has since gained her Diploma in Teaching in the Lifelong Learning Sector (DTLLS). In 2015 Kelly returned to practice and currently works as a medicine and oncology nurse and clinical educator at the Queen Mother Hospital for Animals.

Reducing stress in isolated patients

Kelly Druce BSc(Hons) RVN DTLLS

Queen Mother Hospital for Animals, Royal Veterinary College, Hawkshead Lane, North Mymms, Hertfordshire, AL9 7TA, UK

ABSTRACT: Patients are often fearful, stressed or anxious when visiting the veterinary practice. Staff members go to great lengths to ensure that patients have a positive experience and to limit negative emotions. Waiting areas and kennel environments are becoming increasingly species-specific and practitioners are more aware of, and more empathetic towards, stressed and anxious patients. Isolation of patients is sometimes necessary due to the risk of infectious disease, but are all isolation facilities adequate? Do we transfer our skills and knowledge effectively to minimise stress and anxiety when caring for isolated patients and provide a standard of care comparable with other areas of the practice?

What is meant by the terms fear, stress and anxiety?

Fear, stress and anxiety are terms used frequently within the veterinary environment. To understand our patient's behaviour and to empathise with them, it is important to fully understand these emotions and their causes.

Fear is a direct emotional response experienced by an individual when it identifies a harmful situation, for example, restraint for venepuncture. The feeling of *anxiety* differs from fear because, while it is still perceived as an emotional response, it is based on the individual's perception that a threatening situation *may* occur, for example when placed in a kennel environment. *Stress* is a physiological response to a situation or event that causes a negative impact on the individual's health, welfare or behaviour which can be evoked by fear or anxiety (Casey, 2002).

However, stress can also be described as a normal response that helps to prepare the patient for fight or flight. Increased levels of stress are unavoidable for patients entering the veterinary environment, although the level of stress experienced by the patient can vary greatly and is dependent on many underlying factors. Trevorrow (2013) recognises these as an animal's:

- degree of socialisation
- habituation to the situation
- genetic makeup
- current health status
- overall temperament

Patient well-being

Stress in human beings, and its negative impact, is well recognised. Unfortunately, it is less well recognised in the veterinary field. Physical, mental and social dimensions all impact on the health and well-being of the patient, and the impact of stress on each of these needs careful consideration (Mills, Karagiannis, & Zulch, 2014).

The physical well-being of patients is always a primary concern, but their emotional well-being should receive equal consideration. Reduction of patient stress can reduce the incidence of harm to both animals and practitioners by allowing more effective patient handling. This, in turn, decreases bite injuries to staff, ultimately reducing the need for time-consuming accident investigations and staff shortages due to inability to work (Herron & Shreyer, 2014).

Patient hospitalisation

Hospitalisation is considered to be the most stressful time for a pet (Carter, 2014). As a profession, we should be aware of our patients' needs and make necessary adaptations in an attempt to make kennelling environments happier, less stressful places for them.

DOI: 10.1080/17415349.2016.1189263

In order to do this effectively, we must first consider the reasons why hospitalisation may be stressful to animals. This can include leaving the familiar home environment and social group and arriving at an unfamiliar place or one that has negative associations, as well as being caged alongside other inpatients, especially species which may normally be predatory. Furthermore, they may not be able to use their normal coping mechanisms, such as hiding or investigating further (Hewson, 2014).

Kennel design

Kennels can be designed to reduce stress in hospitalised patients. Large wards and kennel areas offer space for individual patients, allow for the provision of various sized kennels and for patients to be kennelled apart and not directly next to loud or aggressive patients. The implementation of specialist wards, i.e. medicine, surgery, oncology, also allows for further separation of inpatients and thus reduces both noise and through traffic further.

Treatment areas should be separate from the kennel area, as the primary accommodation should be viewed as a safe haven for the patient; thus, treatments with their potentially negative interactions can be carried out elsewhere. Only positive events such as TLC, rest and feeding should take place within the hospitalisation area (Carter, 2014).

Species-specific wards are becoming more common in veterinary practice, allowing for the provision of species-specific care to be incorporated. Physical and mental stimulation are required for hospitalised cats and dogs, but the needs of the species vary greatly.

Visual access is an important consideration that is easily accomplished for dogs, while cats should be provided with the facility to hide away, often resulting in minimal visual access on the part of the nursing staff (Heath & Wilson, 2014). By separating the hospitalisation areas it is possible to reduce unnecessary interaction with cats while allowing for our sociable canine friends to enjoy higher levels of interaction with staff.

Dogs are happy (and safer) kennelled at ground level, whereas cats prefer height, and kennelling cats at ground level can induce stress and anxiety.

Segregation of species when kennelled allows for the removal of various sensory challenges. Cats do not respond well to dogs barking or to being able to see them across an already strange and potentially threatening new environment. Segregation also allows effective use of pheromones as a calming mechanism (Heath & Wilson, 2014). Ensuring that the practice has separate feline and canine waiting areas will also assist in the reduction of stress pre-hospitalisation (Carter, 2014).

All of these considerations improve the welfare of hospitalised patients; however, when the need to isolate a patient arises we often do not effectively transfer these ideals and the isolated patients' needs regarding stress and anxiety reduction can be overlooked by physical health and nursing requirements.

Isolation of patients

The necessity to isolate patients cannot be avoided. The moral, professional and legal requirements to reduce risks to hospitalised patients and maintain safe working environments cannot be ignored (Weese, 2004). We know that isolation of human patients is believed to impact negatively on psychological well-being and increase anxiety and anger (Abad, Fearday, & Safdar, 2010).

Time is often in short supply, but patients benefit greatly if we slow down, introduce ourselves and allow them to anticipate our actions. It is essential to allow our patients periods of peace, but also to offer opportunities for socialisation with us, albeit simply listening to our voices, when they are at rest and are not being subjected to nursing interventions (Carter, 2014).

Signs of stress in isolation

In order to prevent or alleviate stress we must be aware of its presence. Signs of stress in cats, like signs of pain, can be very subtle and careful monitoring is required (Trevorrow, 2013). Signs of stress are often species-specific and it is important to be aware of these differences (**Boxes 1** and **2**) (Casey, 2002; Frank, 2014; Trevorrow, 2013).

Box 1: Indicators of stress in cats

- Withdrawn/hiding away
- Increased sleep
- Reduced tolerance to handling
- Aggression
- Reluctance to utilise resources (litter tray, feeding bowls)
- Sitting in hunched position/flattened posture
- Reduction in play and interaction with people
- Reduced appetite and thirst
- Overeating
- Vocalisation
- Inappropriate elimination in kennel
- Increased fear
- Sleep disturbance
- Pacing, circling or restlessness
- Under- or over-grooming
- Flattened ears
- Dilated pupils or visual scanning
- Panting in extreme cases
- Climbing
- Spraying
- Lip licking

Box 2: Indicators of stress in dogs

- Avoidance of people
- Defensive aggression
- Panting or salivation
- Pacing or excessive activity
- Visual scanning or dilated pupils
- Inappropriate soiling of kennel area
- Vocalisation
- Hiding
- Attention-seeking behaviour, i.e. pawing
- Appeasing/low posture
- Flattened ears
- Low tail position
- Anorexia
- Digging
- Paw lifting
- Body shaking
- Tachycardia

Reducing stress in isolated patients

The majority of small animal practices in the United Kingdom are not purpose-built, and isolation facilities are often adapted from existing architecture (Forrest, 2007).

Kennelling cats in dog areas and dogs in cat areas is a questionable method of isolating

patients and is likely to increase stress and anxiety for many (Forrest, 2007).

To reduce stress in isolated patients, the same principles as for patients that are not isolated should be followed. Separate treatment and kennelling facilities are also still necessary (Forrest, 2007), but space and staff constraints can make this difficult. Nurses working in isolation facilities should have minimal contact with other patients (Forrest, 2007). Not only does this reduce the risk of spreading infection to other patients, it also allows the isolated patient greater contact and promotes development of a bond between nurse and patient, as often seen in standard kennel environments.

Cage confinement for animals recovering from disease is essential to reduce spread of disease and maintain safe working environments for patients and staff. While comprehensive data on the effectiveness of this are lacking, research has indicated that hospitalisation can have negative effects (Hewson, 2014) and often we find ourselves asking if fearful or anxious patients may recover more quickly back at home. A randomised cat study by Gourkow and Fraser (2006) showed that cats housed in smaller kennels left "barren", as opposed to those given large kennels and more suitable enrichment, had higher occurrence of illness during their stay, concluding that caging results in lowered immunity.

This supports the idea that patients entering isolation should receive the same level of enrichment as they would in the normal kennel environment and isolation facilities should be designed with the same features as the kennel environments discussed previously.

Ideal isolation

Isolation facilities should provide separate cat and dog areas and allow for separate treatment and rest areas. The presence of dogs in shelters was seen to increase stress levels in cats also housed there (McCobb, Patronek, Marder, Dinnage, & Stone, 2005). Enrichment is essential and a designated concrete exercise area for dogs is required for infection-control purposes (Forrest, 2007).

Mental stimulation needs careful consideration, especially if these patients receive limited human contact. Appropriate toys and chews should be provided and swapped regularly to alleviate boredom. Familiarity of blankets and toys from home can help reduce stress, especially as owner contact is not possible while isolated (Sheridan, 2009).

Protective clothing is essential when nursing isolated patients potentially harbouring infectious disease. Disposable sleeved aprons, foot covers and gloves are essential, and the addition of hats, facemasks, goggles and face shields can be worn if deemed necessary (Forrest, 2007; Sheridan, 2009). It is worth remembering that these items of clothing are unfamiliar and will often be perceived as threatening to patients. Therefore, the disease type and risk of transmission should determine the exact needs for protective clothing, rather than relying on standardised protocols.

Feeding isolated patients can be challenging if there is minimal staff time and contact. Often food is left with patients for long periods before being changed if uneaten. A malnourished patient is more susceptible to delayed wound healing and infection. In addition, if stressed, the increased levels of cortisol and adrenaline can trigger the patient to become hypermetabolic. This can result in the development of insulin resistance, leading to poor utilisation of dietary carbohydrate or prolonged periods of hyperglycaemia (Spencer, 2009).

To maximise patient welfare, human interaction is essential. Heath and Wilson (2014) believe this offers the patient:

- a predictable temporal routine – unpredictability increases the impact of negative experiences
- appropriate handling and restraint – handling should be perceived by the patient as resulting in pleasurable experiences in addition to when treatments or procedures are required in order to reduce the likelihood of a negative association and subsequent confrontation
- unambiguous communication – predictability and consistency are of great importance for confined animals; rushed interactions should be avoided

A study by Dybdall, Strasser, and Katz (2007) revealed that domestic cats showed more signs of stress than stray cats when initially confined in a shelter. This is likely to be due to the fact that domestic cats are normally used to a routine.

Noise

As human contact is unfortunately often reduced when patients are isolated, auditory stimulation, in the form of music, should be used. As in the normal kennel environment, heavy metal or hard rock music should not be played as these have been found to increase stress in animals. Classical music has been shown to promote relaxation and use of white noise (a steady, unvarying, unobtrusive sound) is helpful in drowning out other potentially stress-inducing noises from staff or animals located nearby (Herron & Shreyer, 2014).

Pheromones

Pheromones such as Feliway and Adaptil (Ceva Animal Health) are widely used in wards and waiting areas. These synthetic pheromone preparations have been shown to reduce signs associated with anxiety (Herron & Shreyer, 2014) and are indicated for use within isolation facilities as well as general wards. As animals are only sensitive to pheromones from their own species, use of both products in the same area is reasonable, although as previously discussed, species-specific isolation areas offer greater benefit to patients.

Stress reduction

Implementation of stress reduction plans allow for individualised care based on the needs of specific patients. They can be used alongside admission and/or hospitalisation sheets to encourage nursing staff to monitor patients for signs of stress and anxiety, and consider other important factors such as age, illness and potential of dementia (Carter, 2014). Our duty of care applies to the patient's mental and emotional well-being and not just physical needs (Heath & Wilson, 2014).

Use of the pneumonic – HAPPY

Whether patients are based in wards or in isolation their physical and mental well-being is of utmost importance and the care and consideration delivered should be transferable. Carter (2014) advocates the pneumonic "HAPPY" to help us consider each patient's needs:

Health – is the patient's health affecting their mental well-being?

Anticipation – does the patient have time to anticipate what is going to happen?

Take time to get to know your patient and allow your patient to feel secure.

Perception – What is the patient's perception of you? Are you rushing and therefore heavy-handed? Are you dressed in strange clothing? While a nurse's uniform may be acceptable, are face masks, goggles and loud rustling aprons something many patients will be habituated to?

Peace – Does the patient experience periods of calm and peace at appropriate and relevant times? Are lights switched off at night?

You – We are in control of our patients and must provide the best care possible no matter where they are housed!

Considerations

Maintaining isolation units effectively is expensive while their level of usage and thus ability to contribute to practice income is often minimal. It may therefore be more appropriate for practices to consider referral of patients that require isolation to a suitable referral facility. To meet patient's needs and reduce stress associated with boredom and loneliness, designated isolation staff should tend to patients to facilitate the provision of the same high level of nursing care expected in the main wards (Forrest, 2007). Patients in isolation often require more intensive nursing and frequent observations (Sheridan, 2009), yet this cannot be adequately achieved without specific staff with time available. Nurses working within the isolation facility should have minimal additional duties (Forrest, 2007).

As it can be difficult to meet the needs of isolated patients, consideration as to whether a patient strictly needs to be isolated is required. Many patients with infectious diseases can be housed in routine kennel areas and barrier nursed as an alternative. Whether isolation or barrier nursing is sufficient depends not necessarily on disease, but more specifically on route of transmission (Sheridan, 2009). It may be considered that only infectious diseases spread via indirect contact in the form of aerosols, intermediate vectors and urine/faeces in shared dog exercise areas truly require isolation.

The spread of disease via direct contact should be avoidable with good husbandry and nursing care. Indirect transmission from fomites can be readily controlled with good infection control procedures regarding food bowls, bedding, grooming equipment and premises. Effective barrier nursing should remove risks of indirect transmission via staff clothing and patients should be cared for by only one nurse and/or clinician (Sheridan, 2009).

Conclusion

Isolation will always be a requirement for some patients but should not be used unless strictly necessary. Care within the isolation facility should mirror that of care given in other areas of the practice and staff rotas should allow dedicated time to care for and treat these patients. If a practice cannot provide suitable isolation facilities due to cost, space or staffing levels, an alternative should be sought.

Stress reduction in isolated patients is possible, but success is dependent on many factors and a significant combination of time and space is needed for a successful outcome.

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