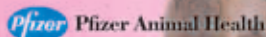




Creating a cat friendly practice

produced by the Feline Advisory Bureau

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Our thanks to:

The information in this booklet has been generously contributed by many of the world's top feline vets, some of whom are in general practice and some in referral; others are behaviourists. We also have top feline veterinary nurse input and lots of good common sense. What the contributors have in common is a passion for and an understanding of cats and an appreciation that they are, at times, not the easiest of patients! Small things can make a big difference.

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The Feline Advisory Bureau is a charity dedicated to promoting the health and welfare of cats through improved feline knowledge, helping us all care better for our cats

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Many thanks to our sponsors for supporting this Cat Friendly Practice Scheme. Without them it would not have been possible.



Creating a cat friendly practice


Cats now outnumber dogs in the UK and are becoming a larger part of practice. Although the figures for the UK cat population are not entirely certain it is widely agreed that there are between eight and nine million cats and that the number is slowly growing - a trend that has been developing for more than five years. Some of the reasons for this growth in the cat population may be found in changes to their owners' lifestyles, an increase in the number of people living alone and high property prices.



Cats, as the saying goes, are not small dogs and bring a unique set of problems in their handling, diagnosis, treatment and care. Owners are becoming increasingly demanding of high quality treatment and a service which takes the needs of their cats into account. With the number of pet cats still growing and pressures on veterinary practices mounting, keeping clients happy with their service is ever more important.

This booklet has been collated using ideas and tips from members of FAB's feline expert panel, feline behaviourists and other feline experts and practices throughout the world. Many of the suggestions are simple and inexpensive to implement and can make a huge difference, not only to the actual care of the cat, but to bonding cat-owning clients to the practice. They can see the efforts undertaken to make their visit less stressful and treatment of their pet more successful.

Practical and design measures can be put in place throughout the practice, from the waiting room, through to the consultation rooms, the equipment and the manner of hospitalisation. Additionally, providing information for owners bringing a cat into the surgery and for use after they leave, as well as training staff to handle cats and understand what causes distress, can have a significant effect on the welfare of your cat patients. It will be noticed and appreciated by clients.



The majority of cat owners are 34 to 44 years old, an age group where time, family and career are dominant pressures and the independent nature of the cat makes it the ideal pet for those with busy lives to lead. The typical lifespan of a cat is now 12 to 15 years with a growing number living to 15 years and beyond. So, not only do we have more cats as pets but the nation's cats are living longer in more caring homes.



Does your practice have ca

No amount of stylish décor or image projection can counteract the impression that staff are not really interested in cats. A cat-friendly/feline-interested attitude (**cattitude!**) across the practice will set the background against which many (often small) changes to structure, handling and procedures will convey a strong feline-friendly message.

Essential components are:

* Education and training with regard to feline husbandry, handling, behaviour, medicine, surgery and in developing and nurturing a cat friendly ethos among veterinary staff at all levels.

* Familiarity and recognition of various cat breeds and some of their basic characteristics.

* Flexibility with appointments if possible for cats which have been defensively aggressive or anxious on previous visits – the maxim ‘more haste, less speed’ holds true for most cats. Plan longer consultations to allow time to explain complex conditions.

* Awareness of cat security. Ensure that staff know to keep doors and windows shut and that cats are always put in carriers for movement from one area to another. Cages must be secure and have latches and other fittings that cannot be opened by bright but bored cats.

* Knowledge of who to speak with or where to refer a cat with difficult medical, surgical or behavioural problems.

* Awareness of cats’ sensitivity to smell - wearing strong perfumes or the liberal use of room fresheners or deodorisers can be challenging to the cat on top of the normal smells of the surgery. Ventilate rooms and rinse off disinfectants thoroughly if directed by the manufacturer. Install Feliway (Ceva) diffusers throughout the practice.



The first person
to make an impression
will be the one who
answers the telephone
and makes the
appointments.

attitude?



Provide further information. People do not readily recall facts communicated to them when they are worried.



Information on some breed-related inherited problems and diagnostic tests is available on the fab website www.fabcats.org

* Understanding of bonding problems - where clients have strongly bonded cats (eg a pair of Burmese), be willing to consider having the second cat brought into the surgery so that it smells the same as the patient – this can help to prevent relationship problems between such cats (see 'Advice to take home' later in this booklet).

This booklet will look at ways to make your practice more cat friendly in the following areas:

Practical and design measures

- * Reception area and waiting room
- * Equipment for the feline practice
- * Housing cats

Handling cats

- * General handling
- * Handling cats in the hospital environment
- * Handling for specific procedures
- * Weighing cats

Nutrition for feline patients

Pain management

Medicating cats

Advice for clients

* Consideration of clothing - 'white coat syndrome' has been identified in cats and may be something to think about alongside other changes in practice approach.



Practical & design measures

Reception area and waiting room

First impressions count! And while not all veterinary personnel are fortunate enough to work in modern, purpose-built premises with state of the art equipment, this needn't hinder the creation of an atmosphere that reassures feline owners that this is an organisation staffed by people who care about both them and their pets.

While the ideal (short of having a cat-only clinic!) is obviously to be able to completely separate the dogs and cats attending the clinic, many practices are working out of premises adapted from less than ideal buildings and simply have to do what they can. Simple things can help:



Ensure receptionists and nurses can give good basic advice on feline topics and direct owners to a relevant source of reliable information.



- * Create a dedicated **cat-only** part of the waiting area, preferably located where there is least human and animal traffic. Softer lighting can be used.

- * Set up **times** when only cat clients can attend.

- * If possible, prevent noises from consultation rooms reaching the waiting area.

- * Consider having **nursing clinics** for:

- life-stage checks eg, kitten, geriatric clinics

- more specific conditions eg, obesity clinics, nutritional advice, diabetic checks etc

- demonstrating/explaining specific procedures eg, administering medications, injecting insulin etc

- * Provide **raised shelves or stools** for clients to place cat carriers on (by the reception desk as well as in the waiting area). Ensure the shelves are of appropriate size so baskets do not fall off easily!

- * Display **notices** asking clients with dogs to keep them away from cat carriers.

- * Display evidence of feline-related continuing education which staff members have undertaken or membership of cat organisations.



A cat only waiting room can be a tranquil place!

- * Put up **displays** of cat breeds and photographs of clients' cats etc.
- * Provide cat **magazines or information** for clients to browse through.
- * Set up a **notice board** with details of specialist in-house clinics, promotions, lectures or cat information evenings.
- * Provide a range of **cat products** selected for quality if space is available. Make sure that they are **cat friendly** and **safe** (eg, only sell collars that have safety snap release catches), suitable baskets, safe toys etc.



Be able to provide reliable local cat-related contacts. Information on catteries can be obtained from the FAB website www.fabcats.org A copy of the Good Cattery Guide can be ordered from FAB.



Equipment for the feline practice

A task is always easier and more successful if you have the right tools. Some ideas for tools for the cat practitioner include:

General/consulting room/procedures room equipment

* Where possible use **narrow gauge** hypodermic needles for blood sampling and subcutaneous injections (23 and 25 Gauge). For intramuscular injections use 25G or insulin syringes.

* Where possible use **small sized blood tubes** to minimise volume of blood required for basic tests.

* Consider different types of **thermometers** to make temperature taking less distressing, eg, Flexi-firm™ digital thermometers from Vetdirect. Tips for stopping cats from purring include turning on a tap or gently holding fingers over the nostrils.

* Use a **hand disinfectant**, eg, New Genn™ - reported to be a safe, high level disinfectant killing many bacteria (including MRSA), fungi/mould, viruses and spores. As well as a general disinfectant, non-alcoholic foam hand rubs are available to use in between patients. Let owners see you use it – they will be impressed and reassured.

* Cat-sized (ie, infant or paediatric) **stethoscopes** make detecting heart murmurs and abnormal lung sounds much easier, eg Littman Infant™ or Paediatric scopes.

* Use scissors or small quiet **clippers** (eg Moser™; Arco) and allow them to run for a few moments before use. Keep them well maintained to prevent any skin trauma.



Fluid pumps or syringe drivers are essential for accurate rates of fluid administration

* Essential basic equipment includes

- glucometer
- small centrifuge
- urine dipsticks
- microhaematocrit reader
- refractometer
- microscope slides and microscope

* Suitably sized **pulse oximeter** probes.

* Suitable cat restraining equipment

- bags used for bedding
- Mikki™ muzzle
- Mikki™ bags
- gauntlets

* Direct ophthalmoscope, pen torch/transilluminator and hand lens (eg, 2.2D).

Anaesthesia and critical care equipment

* Have readily available methods of **emergency oxygen administration** eg,

- oxygen cage
- portable anaesthetic trolley
- collar & clingfilm

* Ensure appropriate **anaesthesia circuits** are available for cats, ie, T-piece and cat-sized face mask.

* In cats which are difficult to intubate, a very useful technique is to use a dog urinary catheter inserted through the ET tube and used as a stylet.

* Consider methods of **active warming**:

- Bair Huggers™ (manufacturer Actamed) are widely used in human paediatric wards since they are the most effective way of patient warming. Bair Huggers are portable machines which blow out warm air into disposable paper blankets that the patient lies on. The blankets come with transparent plastic, adhesive covers which hold in the warmth and allow easy visibility to monitor respiration. The blankets have small holes throughout them to allow the warm air to circulate around the patient. Although expensive, they are fantastic for maintaining and increasing the temperature in anaesthetised and hypothermic cats. (see www.actamed.co.uk).

- **Snugglesafes**™ are microwavable discs used for patient warming. Once microwaved the disk stays warm for up to 12 hours. Because there are no electrical cables and the disk is chew-proof they are safer than heatpads and easy to clean. (see snugglesafe.co.uk). Even water-filled latex examination gloves work well, conform to the cat, are inexpensive and can be washed and rewarmed in the microwave. However, be very careful as they can cause severe burns if they come into direct contact with the patient when very hot.

- Microwavable **wheat bags** can also be used. They are very useful during anaesthesia as they can conform to the shape of the patient. They can be purchased widely on the internet and from most chemists.

- Ensure iv fluids are being warmed either by passing tubing under a heat pad or wrapping around gloves or a bag filled with hot water.



Cats have very sensitive tracheas and significant trauma can occur if cuffs are inflated excessively - indeed the majority of the time they do not need to be inflated at all. Uncuffed ET tubes are much safer to use, significantly reducing the risks of tracheal trauma.



Equipment for the ward



* **Nebulisers** (eg, Medel™, Aerofamily™) are widely available from many chemists. They are extremely useful as part of the treatment for any cats with respiratory tract discharges, for example with acute 'cat flu', chronic rhinitis and pneumonia. Ideally the cat should be placed in a covered cage (a plastic sheet is sufficient) and the nebuliser put into the cage for around 20 minutes every four to eight hours. For cases of pneumonia combining nebulisation with coupage helps to loosen mucus/discharges from the lower airways.



* **Aerokat™** 'spacer' – designed for the delivery of **inhalation drugs** to cats with chronic small airway disease. One end is made to fit the inhaler while a cat-sized facemask is attached to the other end (see www.breatheazy.co.uk).

* Water fountains can encourage drinking especially in lower urinary tract and renal failure cases.

* Equipment for **dealing with pills** – eg, pill crushers and cutters.

* **Elizabethan collars.** Clear plastic versions can be useful for purposes of restraint with uncooperative patients, but consider using soft and pliable, light weight, better tolerated, models which can be turned back (eg, Trimline – www.trimlineinc.com).

* **Naso-oesophageal tubes** (small sizes 4 & 6 Fr and other feeding tubes suitable for oesophagostomy feeding, eg size 14 or 16 Fr.

* **Oesophagostomy tube** (oesophagostomy tube catheter sets available for easy placement, from Global Veterinary Products).

REMEMBER
Keep a range of grooming equipment, eg, wide tooth combs for long haired cats.

Equipment for more specific procedures

* **Blood typing cards** (RapidVet -H™ feline blood typing cards from Labpak, www.apidvet.com)

* **Filtered giving set** for blood administration/50ml blood collection bags

* Consider having a list of possible **donors**/staff cats already blood typed & suitable for blood donation that could be used if necessary. Where a cat has been blood typed ensure this is entered on its record card.

* If endoscopy is available consider whether the **size of endoscope** is suitable for use in cats.



Bristol vet school blood donor cats working hard!



Filtered giving set

needle and giving set very successfully (see information sheet on this on the veterinary section of our website).

www.fabcats.org

* If ultrasound is available, ensure appropriate probes for use in cats.

* Long stay **subcutaneous fluid catheters** (Endosof™; Global Veterinary products formerly Cooks). Some of our experts have used these successfully, others worry about blocking and infection and still use a

Blood typing card.

For more information on blood types see www.fabcats.org



Housing cats



It is helpful to have as much information as possible committed to paper before a cat is admitted. Note what is normally fed, litter type used, whether the cat likes being groomed or any behavioural peculiarities - predictability in environmental and social terms is important to feline psychological equilibrium. If an owner wants to leave something that smells of home, be willing to accept.

Don't leave newly admitted cats waiting around at floor level in exposed or busy locations, near dogs or facing other cats. If the cat cannot immediately be transferred to a kennel, cover the basket. Make sure it is in a quiet raised position.

Generally completely separate locations for canine and feline patients are thought to be ideal. Where dogs and cats do have to be housed together using DAP (Dog Appeasing Pheromone; Ceva) to reduce canine reactivity can have a secondary beneficial effect on feline residents. If feasible, organise a timetable that allows for different species to be admitted for routine operations and investigations at different times.



A cat-only ward helps to make a stay in hospital as comfortable and stress-free as possible

Aim for a **temperature** between 65 and 70°F (22 – 24°C) and a relative humidity of 35 per cent.

Think about the **cat cage** design, positioning and materials. How that small space can be used and what it contains can make all the difference to how warm cats are kept, how well they relax and therefore when they want to eat, and how quickly they recover. Good nursing is known to be very important for feline morale!



Remember, feline infectious diseases are very common and often very contagious, especially the upper respiratory tract viruses. Cats may not be symptomatic of their viral infection but can still be excreting virus (especially herpesvirus). Indeed virus will be excreted at higher levels when cats are stressed, and easily spread throughout the hospital. It is vital always to wash hands between cats and disinfect everything including scales, cages, cat carriers etc.

Cage design and positioning

* Choose a **design** with a wide front but not too deep, to aid accessibility.

* Get the **height** right for lifting in and out smoothly and for cleaning.

* Cats prefer to be **high up** and not at floor level, and preferably not with a barking terrier in the pen beneath or opposite!

* Cats prefer not to face cats or other animals.

* Consider the size of the front **mesh** – small kittens can get their heads stuck if the holes are too large!

* For reasons of infection control and to cut down on any inter-cat stress, do not have cages facing one another.

* Put cats as far away as possible from entrance doors, stainless steel sinks, telephones and other noisy, busy areas. Timid, frightened or very ill individuals generally need quiet and to be placed in an area where observation is straightforward but there is not a lot of activity and noise.

* **Stainless steel** may be easy to maintain, but it can be **cold** to sit on and noisy for cats moving around as they recover from anaesthetic, so appropriate bedding is essential. Its reflective properties can also be unnerving for some cats.

Laminate surfaces are warmer and just as easy to disinfect.

* It can be useful, if spaces allows, to have the facility of a mobile cage to give flexibility in finding a quiet place or to let a cat out in a quiet room.

* **Isolation facilities** will be required for cats with suspected calicivirus or herpesvirus infections which are airborne, or cats with *Microsporium canis*.



REMEMBER
Caged cats
prefer not to
face other cats
or animals



Furnishing the cage

* Placing a cardboard box or igloo style bed in the cage can be very useful to provide somewhere for the cat to **hide**.

* *Bedding*

- Something like Vetbed™ is **warm** and allows the surface to remain **dry** even if the bed has become wet.

- Cats may crawl under bedding to hide, which may mean they are sitting on a cold surface. Using igloo type beds, and other less rigidly formed beds which almost collapse around the cat, gives them **somewhere to hide** and be warm. Beds which are almost large bags are also useful for restraint as the whole bed can be lifted out with the cat in it. A towel can be rolled lengthwise and the towel sausage placed around the cat.

* *Warmth*

- Use heat pads with bedding on top (take care not to burn cats which are not able to move around).

- Hot water bottles can be useful. However if they are to be used it is important that they are removed or the water changed when it begins to cool as this will take heat away from the cat.

- Various types of other warming equipment are also available (see under anaesthesia & critical care equipment).

REMEMBER
Bedding
is essential.
Old newspapers
are not
enough



Floppy bag-type beds are also useful for restraint



* Consider the type of **litter and litter tray**

- for an elderly or disabled patient one with a low lip will aid access
- a covered tray may help a cat that will not eliminate if in sight.
- a low tray inside a cardboard box turned on its side as a barrier can be helpful for privacy.
- have a variety of litters available including non-absorbent type for urine collection.



* **Cover** the front of the cage with a **towel** so the cat feels it is hidden (but make sure to check the cat regularly).



* Provide **toys** for young cats and kittens – they do play and it provides exercise and distraction. Remember to disinfect toys between cats.



Handling cats



Style of approach for handling is crucial. Cats are generally more sensitive to unfamiliar people and situations than most dogs and, because of the subtlety of their communication systems, more readily misunderstood.

Handling cats well for even simple techniques is important and is something not given enough thought or training in practice. We have given some general tips as well as more specific advice for various procedures because we feel this is a very important aspect of the cat friendly practice. Develop techniques with the practice nurses – you will quickly learn that some nurses enjoy handling cats and are much better at it than others: use these nurses for your feline patients. Give them responsibility for getting the other practice members up to par – it is all about technique and confidence. It can make a huge difference.



Scruffing the cat - should not be used routinely and certainly not for lifting. Grabbing and immediately scruffing can be intimidating and leaves the animal no room for manoeuvre except for defensive aggression, ('fight' may be felt necessary as 'flight')

General handling tips:

Adopting a '**less is more**' approach to restraint will help to prevent the cat resorting to aggression. Cats generally respond well to minimal restraint.

- * Always approach a cat in a calm and soothing manner. Don't look the cat in the eye on first contact – **look past** it. Stroking and talking to the cat before lifting it from a cage or basket is ideal if the cat allows this.
- * Rub your hands over the cat's own pheromone centres (above the bridge of the nose and the preauricular area). The cat will often then put its head in your hands – very impressive for clients!
- * After removing the cat from the basket, **let it settle**, stroke it while having a chat or let it wander around for a few minutes.
- * Avoid ringing sounds and sharp shoe noises.
- * Avoid very bright lights initially while the cat settles.
- * Talk to the cat **calmly**, slowly and with a relatively quiet tone, moving slowly and quietly and without making sudden movements. Some people find getting down on the floor with the cat can help it to relax and make handling easier.

* Perform some of the physical examination with the cat looking away from you.

* Start with the least invasive procedures first, ending with those most likely to upset the cat, such as taking the rectal temperature (and remember to use lubrication to aid insertion).

* Have items such as thick **towels** to hand for calm use if required.

* Being moved around on a slippery surface can be quite stressful. A towel or rubber mat which gives the cat something to **grip** can help.

* Felifriend™ (addition to the Feliway), can be useful. However, a paradoxical increase in defensive aggression has been noted in cases where the cat is faced with a human or feline which it associates with hostility. The cat appears to panic at the conflict between what it sees and the appeasing scent signal.

* Be willing to use **chemical restraint** to avoid/decrease stress which may be caused by using physical restraint on the patient.

* Use cotton overalls – synthetic material can lead to electrostatic effects.

Cats often resist having their mouths opened wide and it can be easy to miss things. See www.catfriendlypractice.org for tips on oral examination.



If aggression does occur it is important to realise that it is because the cat is **fearful**, not 'dominant'.



Helpful information can be found in the American Association of Feline Practitioners (AAFP) Behavior Guidelines:

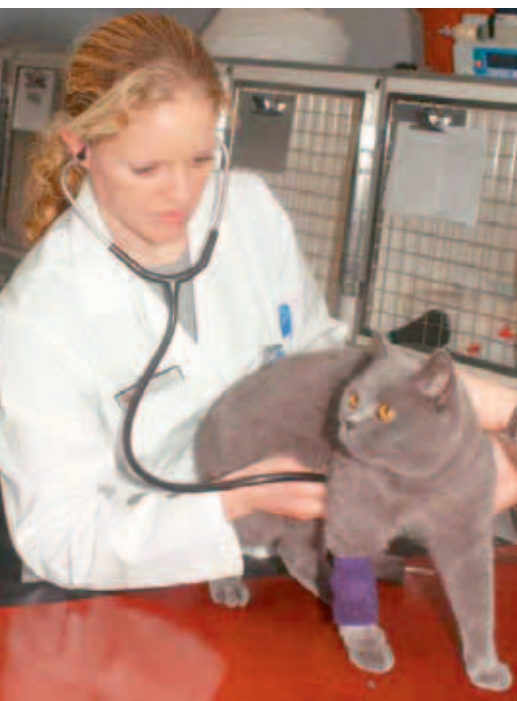
www.aafponline.org/resources/guidelines/Feline_Behavior_Guidelines.pdf



Handling cats in the hospital environment



- * Handle cats **quietly and gently** and don't impose attention on them when there is a lot of activity in the area.
- * **Limit the number** of personnel around and view the environment from the feline perspective of sensitive hearing and sense of smell.
- * Quiet **music** may well have a calming effect.
- * Have a **quiet area** for taking blood/blood pressure/inducing anaesthesia and other minor procedures.
- * Educate staff that **staring** and intrusive handling/petting can be stressful for some cats. If possible, provide a separate room for visiting owners.



Carefully **observe the behaviour** of each cat, monitor use of facilities and be prepared to implement changes immediately if problems become apparent.

Lastly, it is not uncommon for clinics to take in pets to board despite not having properly constructed and dedicated cattery facilities. Holding and hospital cages are not suitable for cats whose owners are on holiday.



Consider the likely impact of such routine tasks as washing feeding bowls and surgical instruments in stainless steel sinks and putting them down heavily on draining boards. This can be particularly problematic where space is limited and areas have to serve more than one purpose.

Handling for specific procedures

Successful cat handling is a combination of technique, practice and confidence. Below are some techniques – the rest is up to you!

Blood sampling/catheter placement

Cephalic

1 With the cat standing on your right hand side, place your right arm around the back of the cat and bring its hind quarters towards your body with your elbow.

2 Extend its right forelimb by placing three fingers behind the elbow and place your thumb and index finger around the radius and ulna.

3 Your thumb should be used to raise the vein by applying a little pressure over it.

4 Your left hand should be gently placed under the cat's jaw to prevent biting. Often gently tickling under the chin can relax an anxious cat.

5 Sometimes the cat's left forelimb also needs to be restrained and this can be done by using the little finger of your right hand to hold it under the cat's right forelimb.



REMEMBER
Handle cats
quietly and gently
- it does have a calming
effect!



Jugular 1

1 See Step 1 for blood sampling on previous page.

2 Hold the forelimbs (mid radius and ulna) with your right hand (inserting a finger between the legs so that you do not hold these together too tightly) keeping the front feet on the table. Suspending them over the edge of the table often makes cats feel insecure. Many cats also dislike their paws being held but will quite happily sit while someone holds their head: in this instance the cat is backed up to the holder who uses both hands to gently elevate the head to expose the jugular.

3 Use your left hand to gently raise the cat's head under the jaw so the blood sampler has access to the vein.

4 It can sometimes be useful to gently blow on a nervous cat's face when the needle is being inserted to act as a distraction to what is happening.

Jugular 2

This position is very useful when blood sampling kittens, jumpy cats and cats with a short nose, eg, Persians (see picture top right).

1 Place a blanket on the table for the cat to lie on.

2 With the cat laid on your right arm, use your right hand to hold the cat's forelimbs with a finger in between.

3 Gently but swiftly, turn the cat onto its back using your left arm to lay the cat back onto it.

4 Place the cat onto the table upside down, still holding the forelimbs with your right hand, tuck the cat's body into you with your right elbow.

5 The sampler should restrain the head leaving your left hand free to place around the cat's right shoulder. You should use your thumb to raise the vein in the groove between the scapula and trachea. Do not apply excessive pressure when raising the vein.



Jugular 1



Saphenous

For blood sampling or catheterisation of the saphenous vein two people are required for safe restraint.

1. See Step 1 above.
- 2 The cat should be placed in lateral recumbency with its legs towards the sampler.
3. Both handlers should stand the other side with the cat's back towards them.
4. One handler should use their right hand to hold the cats forelimbs (mid radius and ulna) with a finger in between the limbs.
5. Your left hand should be carefully placed over the cat's neck – Do not place pressure onto the cat's throat! If firmer restraint is required pressure should only be placed around the bony temporomandibular joint.
6. The second handler should hold the cat's upper hind limb with one hand while using the other to raise the vein and extend the lower hind limb by placing the hand around the cat's thigh and stifle.





Ultrasound

Restraint as for saphenous sampling but the handler should gently hold the hind limbs in each hand. Also the first handler can sometimes let the cat lift its head up. Stroking behind the ears and top of the head also helps to calm the cat.

Cystocentesis

The cat can be held in various positions. Either as for saphenous sampling but the second handler should gently restrain the hindlimbs slightly apart with each hand to allow the sampler to palpate and enter the bladder, or in the standing position. Some cats are happier standing with gentle restraint of the front legs.



REMEMBER
Lifting the
cat's head
can help to
calm it!

Blood pressure measurement tips

Any cat friendly practice will be equipped with a blood pressure monitor and will be using it on a regular basis. Again, training nurses to undertake the technique in a quiet area after giving the cat time to settle will ensure success.

* In a conscious cat, Doppler machines are far superior in their reliability and accuracy. Oscillometric machines, whilst OK for use in an anaesthetised cat, have more problems detecting a pulse in conscious patients (due to movement, small patient size and fast heart rates) and will give consequently give inaccurate results.

Cuffs

* It is essential that the correct size cuff is selected for the patient. The width of the cuff should be measured to be approximately 40 per cent of the circumference of the leg. A 2.5cm cuff is suitable for most cats.

* The most common types of cuff available are either made from vinyl (eg, Johnson & Johnson) or latex (eg, Hokanson).

* Vinyl cuffs have an arrow mark on the cuff which should lie over the artery you are going to be occluding. Because only half of the cuff inflates, inaccurate placement may not occlude the artery properly and results will be inaccurate. Accurate placement can be difficult in conscious cats. These cuffs are designed for single use, but they can be used multiple times. However the Velcro does not seem to be very durable and cuffs will commonly 'pop off' when being inflated. Although cheaper than the latex type, frequent replacement is necessary.

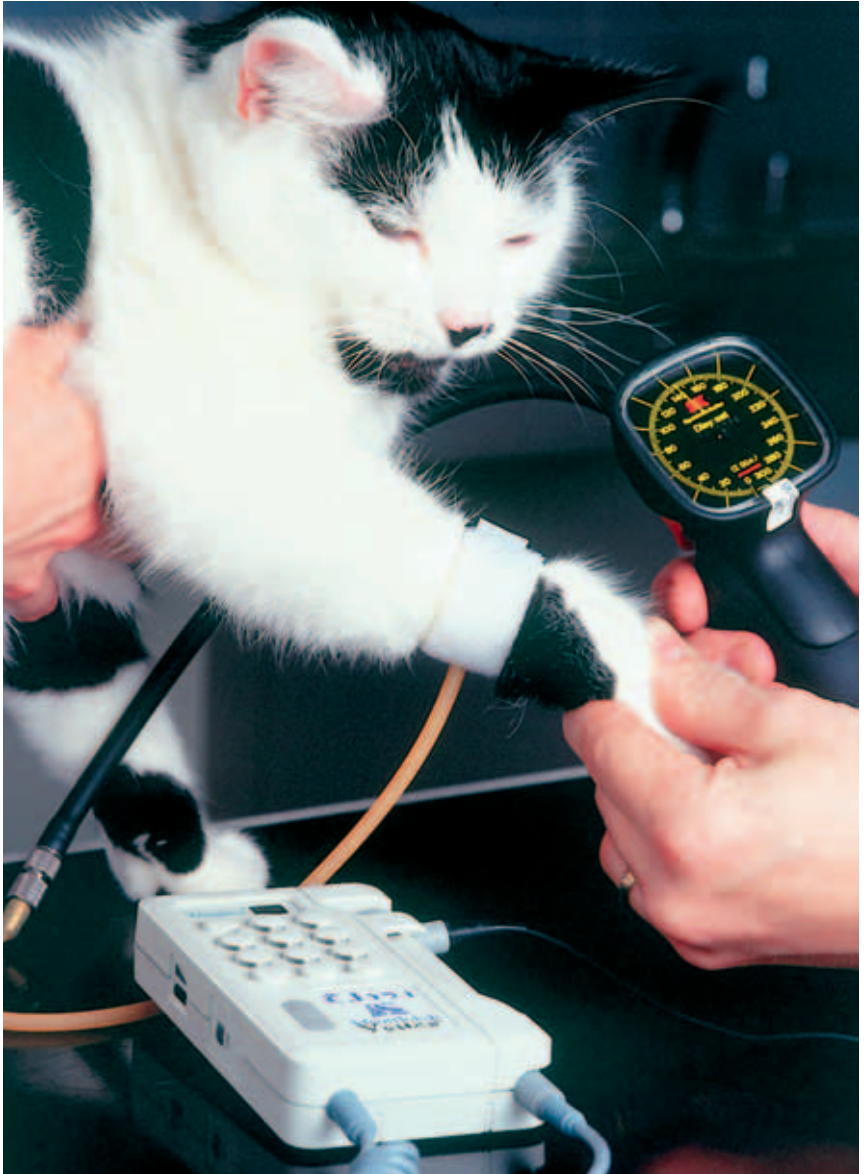
* Latex cuffs usually inflate along the whole length of the cuff, making placement easier. They are more pliable around the cat's leg. The Velcro extends around the whole length of the cuff and seems to be more durable. Latex cuffs should be assessed regularly for weakness by checking for equal inflation along the cuff (bulges will signal a weak area). These cuffs need to be replaced. Although more expensive, latex cuffs are easier to use and have a longer lifespan than vinyl cuffs.

Patient stress is the most common cause of inaccurate blood pressure measurement, therefore every effort should be made to minimise this. Stress can be reduced in the following ways:

* Blood pressure should be measured in a **quiet room** away from other noises such as other animals, the ringing of telephones and the humming of the active scavenging system.



REMEMBER
– no amount of
feline pheromone
will replace good
handling
techniques.



* Use **headphones** to cut out the noise of the Doppler.

* Before beginning to measure a cat's blood pressure, it is important to give the cat a period of **acclimatisation** for five to 10 minutes by letting it wander around the room or sit quietly in a basket.

* **Restraint** should be kept to a **minimum** to avoid stress. A gentle hand placed behind the cat's elbow to prevent the cat from withdrawing its leg is sometimes all that's needed.

* Instead of clipping the fur where the Doppler probe is to be placed, **dampen down the fur** with a swab containing surgical spirit. This avoids the stress of the clippers and provides good contact, even on cats with long hair. If the cat hates the smell of surgical spirit then water may be used. Be sure NOT to apply alcohol to the probe as it will damage it.

* If headphones are not being used gel should be applied to the probe with the Doppler machine switched off and the **volume turned down**. Apply the probe to the cat and, only when you are happy with the position of the probe, switch the Doppler on and slowly increase the volume. This will prevent the loud crackling heard when the probe has the gel applied and is moved around on the cat. Movement of the probe should be done with minimal volume and after blood pressure has been measured the Doppler should be switched off before the probe is removed.

* Inflate the cuff **gradually and gently**. The noise and sensation of the cuff being inflated too rapidly will startle some cats, causing you to lose the pulse, or will stress the cat leading to an increase in blood pressure. If this happens you may find that the first blood pressure measurement is higher than the subsequent readings. This reading should be disregarded and an average taken from the following readings. Alternatively, to try and prevent this, the cuff can be inflated/deflated a few times before beginning to try and find the pulse. This will allow the cat to become used to the noise and sensation.

* If the cat resents its foot being touched use an alternative site, eg, the base of the tail.



Problems finding the pulse may be helped by the following: -

- * Using surgical spirit to dampen down the fur
- * Using plenty of ultrasound gel and giving it time to soak into the fur
- * Holding the probe longitudinally along the leg/tail so that the Doppler crystal strips lie across the artery to give the best signal
- * Avoiding pressing too firmly on the blood vessel as this will occlude the vessel and there will be nothing to hear!
- * Keep practising and have patience!!!



Weighing cats

Have paediatric scales ideally in all consultation rooms, but at least in an easily accessible quiet place – not in the waiting room among the dogs!

* **Don't assume** all cats weigh the same – the average weight of an adult cat can range between 3 kg and 6 kg, but there are exceptions even to this.

* **Healthy young** to middle-aged cats should be weighed approximately once **yearly**, at their vaccination check.

* Calculate **percentage weight change** at every visit. This will give a feeling for trends as well as being more understandable for clients, eg, a 0.3 kg loss in a 3.3 kg cat doesn't sound like a lot, but clients would understand and compare this better as 10 per cent bodyweight loss equivalent for themselves.

* **Older cats** (over 12 years) should be weighed every **six months**.

* Cats with any **illness** that may be associated with weight loss or a poor appetite, or those that are overweight and are on a weight restriction diet should be weighed every **one to eight weeks** depending on the condition.

* **Hospitalised** cats should be weighed **daily**.

If scales are not available in the consulting room, weigh cats in their baskets rather than directly on the scales – this is practically easier, more accurate if the cat won't stand still, safer and more hygienic. Good scales will hold the animal's weight once the machine has locked on to it and are large enough for cats to stand or sit comfortably without needing to be in a basket, eg, Marsden Professional Veterinary Scales™ for smaller animals – www.marsden-weighing.co.uk.

Nutrition for feline patients

For hospitalised animals food obviously needs to be nutritious and tempting.

It is always good practice to get a list of food preferences from the owner before the cat is admitted and have a wide range of food available. (UC Davis has a simple diet history form that can be modified for cats - see www.vmeth.ucdavis.edu/vmeth/services/nutrition/nutrition.html)

Failure to meet nutritional requirements will result in reduced immune system function and increased risk of sepsis, reduced tissue repair and delayed



Nursing care is essential for encouraging a rapid recovery from illness. Hand feeding is often appreciated by debilitated patients.

Always calculate energy requirements and ensure that the cat's food intake is meeting these requirements.

Management of the anorectic cat

It can be difficult to coax some cats to eat, but it is obviously a very important part of recovery. Some tips:

* Careful attention should be paid to **pain control** where this may be a contributing factor.



healing, muscle weakness and altered drug metabolism. Cats are also susceptible to development of hepatic lipidosis following even short periods of anorexia.

Hospitalised patients are often in a hypermetabolic state which, when combined with starvation, quickly leads to protein depletion and protein energy malnutrition, which can be a major contributing factor in multiple organ failure.



- * Fluid and electrolyte imbalances should be corrected by **intravenous fluid therapy**.
- * **Score body condition** and weigh cats daily.
- * Reduce environmental **stressors** eg, dogs, noise, odours.
- * Offer food that the cat is used to - cats are strongly influenced by habit in their selection of foods (collect this information from owners on admittance).
- * Increase **palatability**, eg, add flavours, increase fat/protein content, warm to improve aroma, change texture and consistency.
- * **Tempt** cats to start eating by smearing a small amount of food (eg, Hills a/d) on the paws or face. This usually stimulates a licking response that may result in continued ingestion of food.
- * Find out favourite foods and try these eg, cooked fish, chicken or commercial supplementary food, eg, Petit Pate™, High-life™ .
- * Be cautious preparing food near cats that may be nauseous.



Naso-oesophageal tube feeding is very useful

- * Offer **small frequent meals**, removing the food bowl in-between.
- * Wide **shallow food bowls** should be used to avoid the cats' whiskers touching the sides.
- * It is thought that plastic dishes retain odours and cats prefer ceramic, stainless steel or glass dishes – these are also easier to disinfect properly.
- * Gentle **stroking** will often stimulate eating.
- * Draping a **towel** over the cage, or placing the food in a cardboard box can encourage eating in nervous cats.

- * If dietary manipulation fails, **appetite stimulants** may be attempted, eg, cyproheptadine.

Enteral feeding

Enteral assisted feeding should be considered in any patient that has not been consuming resting energy requirements for three or more days, if there has been loss of 10 per cent bodyweight or if there are increased nutrient demands (eg, trauma, surgery, illness) that are not being met by voluntary food intake.

* Take care with **syringe feeding** as it is likely to induce or exacerbate food aversion. It is unlikely to be able to provide the cat's calorific requirements, and carries a high risk of inducing aspiration.

* **Naso-oesophageal** tube feeding is very useful and appropriate in a lot of cases for short term nutrition.



* Consider **oesophagostomy** or **gastrostomy** tubes if longer term nutritional support is required.

* Use **appropriate foods** suitable for cats.

* Thicker consistency diets can be administered down oesophagostomy and gastrostomy tubes if they are liquidised first, eg, Hills a/d™, or specific prescription diets. eg. Hills I/d™ for hepatic lipidosis, k/d for renal disease.

* Fortol™ (Arnolds) and Waltham/Royal Canin Convalescence Support™ are the most suitable available diets for naso-oesophageal tube feeding because they are liquid enough to easily administer down these narrow bore tubes.

* **Human baby food** preparations should **not** be used since in addition to not meeting essential nutrient requirements some contain onion powder which causes oxidative damage to feline red blood cells, resulting in haemolytic anaemia if used long term.



Food aversion is a particularly important potential complication of anorexia in hospitalised cats. For example offering food or force-feeding while a cat is feeling nauseous will often result in persistent refusal to eat that food. Therefore food should never be left in with the cat all the time if it is inappetent as it will associate the food with feeling unwell.



Pain management

Pain can be very difficult to recognise in cats and may only cause very subtle clinical signs such as a hunched up appearance, hiding at the back of the cage, inappetence, reduced activity, increased sleeping or restlessness, salivation, teeth grinding, tachypnoea, reluctance to use litter tray or reluctance to go outside, without obvious signs of discomfort.

The ideal analgesic agent can be difficult to choose, simply because there are few analgesics suitable for long term use in cats. **Non-steroidal anti-inflammatories** (NSAIDs) can be very useful although extreme **caution** needs to be taken, particularly with respect to potential detrimental effects on renal function. Where possible NSAIDs should be avoided in cats with reduced renal function, or at least used very cautiously in cats with mild renal disease only if well hydrated, used at low doses, and with very close monitoring of renal parameters.



The need for analgesia should be considered in any cat that is having or has undergone surgery, has a known potentially painful condition (eg, stomatitis, wounds, fracture, oral ulcers, arthritis, pancreatitis, cystitis etc), or has any of the above clinical signs that are either unexplained, or persist despite treatment for an underlying disease.

Although not licensed for use in cats, oral meloxicam is the most useful NSAID in many situations, since its formulation allows much more accurate dosing of very low doses, compared to tablet formulations of other NSAIDs.

In hospitalised patients requiring more potent analgesia, buprenorphine is a useful opioid for mild to moderate pain. Buprenorphine can be administered im, sc or iv, but also has been shown to be absorbed across the oral mucous membranes (although it is not licensed for administration by this route), meaning that buprenorphine can be effectively administered without having to give frequent injections.

Buprenorphine and other opioids may also be administered by infusion (eg, morphine), or as a cutaneous patch (eg, Fentanyl™). In severe pain, the shorter acting more potent opioid, pethidine, can be very effective, administered im every four hours.

Medicating cats

Medication, and its administration, is a fairly well recognised source of stress to many pet cats, owners and veterinary staff alike. Manufacturers are beginning to produce a wider range of products aimed specifically at the feline market and designed to make the procedure as straightforward and pleasant for the animals as possible.

In addition it is not sufficient to assume that clients are familiar with effective methods for collecting urine samples, or dosing and application techniques whether tablets, lotions, potions or pastes are being dispensed.

Giving medicines needs to be explained and their use generally demonstrated, at least in the first instance, for compliance and the animal's welfare to be assured.

Be familiar with the drugs that are licensed for use in cats, but be aware that many of the drugs you will need to use are not licensed and the owners should be made aware of this.

As always judgment must be applied and it is not advisable to try and pop a pill down the throat of a cat that has already become distressed. If a friendly surgery pet that will happily endure anything for the sake of attention is to hand so much the better!

Ensure that cats are **weighed** prior to calculating doses of medication rather than assuming all cats weigh about 4 kg. The weight of cats can vary a lot; most cats weigh between 3 kg and 6 kg, which for some medications could translate into significant under or overdosing. Be sure to dose medication, calories and fluids for the ideal, lean, rehydrated patient weight.

FAB has recently launched its 'Easy to Give' awards to recognise medicines or other innovations which have made medicating cats less traumatic. It can also be helpful to establish and maintain a good working relationship with a compounding pharmacist.

REMEMBER:
Make the procedure as straightforward and pleasant for the animals as possible.



Medication for clients to use

Have knowledge of and communicate with clients on:

- * The need to administer **water** by syringe or feed a cat immediately post tablet to prevent oesophageal damage (see FAB leaflet on 'Giving medicine to your cat').
- * Any potential **side effects** of drugs that you use, eg, risk of development of diabetes mellitus with long term/long acting corticosteroids.
- * How the client intends to **administer** the medication (eg, crushed in food or directly into the mouth).
- * Previous **experiences** with particular medications, eg, if you know a medication is particularly bitter tasting and may cause the cat to salivate excessively, then warn the client.

Ensure that what you are dispensing is likely to be accepted by the cat in this way (eg, metronidazole is very bitter tasting and so unlikely to be eaten if crushed in food). Crushing tablets in a small amount of food such as butter or tuna oil to a paste consistency and putting onto the nose to be licked off, can also help.

- * The **form of medications** – some have both a syrup and tablet form (eg, amoxicillin-clavulanate, ranitidine). Find out which the client thinks will be easier for them to administer.

- * Having size 4 gelatin capsules in the surgery is helpful; placing bitter pills or sharp-edged pill pieces into these makes administration easier.

- * There may be **more than one way** of administering a medicine, eg, clindamycin capsules may be administered whole, or opened up and the powder sprinkled in food.

- * Other tips that may make medicating cats easier and be aware of **new products** that may be helpful, eg, Easy-tabs™ (Bayer).

- * The availability of **pill poppers** which can be useful for some cats. Owners need to be shown how to use them correctly and warned that incorrect use of some could cause serious damage to the cat's mouth/throat.

- * Ways to administer **several medications** (two or three drugs can be given in one dose) by putting them into an empty gelatine capsule.

Ensure that you dispense medications in a form that is straightforward to administer, eg, do not dispense 5 mg amlodopine tablets with instructions to administer 1/8th tablet per day; break the tablets into the appropriate sized pieces before dispensing them. This will improve compliance and make you much more popular with the client!

Medication for the practice

Be familiar with and keep up to date with reported **side effects** of specific drugs in cats, eg, association of doxycycline with oesophageal strictures, enrofloxacin and retinal degeneration.

- * Consider the drugs which should be available in your practice for cats, eg
 - Ketamine and midazolam for sedation
 - Parenteral potassium chloride for supplementation of intravenous fluids
 - Ranitidine/ Famotidine and sucralfate for gastroprotection
 - Parenteral metoclopramide that may be added to intravenous fluid



- * Consider which **analgesics** are most appropriate and easiest to dose and administer. eg, for NSAIDs it is easier to give low doses of oral meloxicam than carprofen. For opioid analgesia consider the use of orally administered buprenorphine (injectable form is also absorbed across the oral mucosa) for less traumatic administration, constant rate infusions, or patches (eg, Fentanyl™ patches).





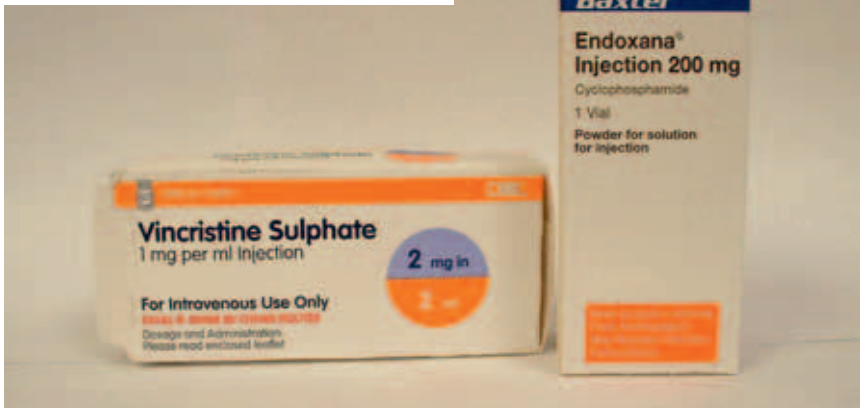
* Consider the drugs that you may need immediately at hand for use in an **emergency**, eg, injectable terbutaline, inhalational salbutamol, furosemide, adrenaline, soluble insulin, injectable phenobarbitone, Diazemuls™.

* Consider newer drugs that may be required quite promptly for common conditions, eg, prazosin and dantrolene for urethral spasm, amitriptyline for idiopathic cystitis, amlodopine for hypertension, cyproheptadine as an appetite stimulant, lactulose as a laxative for treatment of constipation/treatment for hepatic encephalopathy.



* Many cats will respond well to **chemotherapy treatment** (for lymphoma in particular). Consider having drugs available, eg, vincristine, cyclophosphamide and chlorambucil (information on COP chemotherapy protocol will be available on the veterinary section of the FAB website).

www.fabcats.org



Advice for clients

A stress-free veterinary experience for owners and pets alike starts way before they enter the front door of the practice.

Clients can arrive exhausted, injured and distressed, as can the cats, and it's often downhill from there! With each negative trip the signs of stress appear earlier and the job of the veterinary staff gets harder. Patient treatment can become compromised - blood test results can be more difficult to interpret and sedation or anaesthesia may be necessary to handle the cat. Advising owners on the most appropriate ways to bring the cat in and helping them remain calm and relaxed has a positive knock-on effect because pets can so quickly pick up signs of tension.



When their cat is discharged, each client should get a form detailing post-operative instructions, drug regimes, and when the pet is expected back for re-examination. They should understand relevant administration techniques for medication or monitoring (see medication).



It is widely held that patients remember only 80 per cent of what they have just been told by their GP by the time they leave the consulting room, and around 50 per cent by the time they leave the building. We should expect that pet owners would have similar powers of recall concerning their pets' health. Providing clients with written information, such as FAB information sheets (downloadable from our website), which they can take away and read, is also greatly appreciated.



Advising on travel to the surgery

Tips on baskets and travel:

- * Our experts prefer the top-opening plastic-coated type of basket shown here – it is sturdy, easy to open and remove the cat, has a simple mechanism and is straightforward to clean.
- * Bring cats in separate carriers – even well-bonded cats may become aggressive to each other if stressed.
- * Cover cat carriers when travelling, as cats are known to de-stress more quickly in the dark.
- * Spray Feliway™ onto the towel or blanket to create a reassuring environment, at least 30 minutes before using the carrier.



- * Clients can try to get kittens used to travelling in a stress-free way, and desensitise adult cats to baskets and cars, as suggested on the FAB website www.fabcats.org and information leaflet 'Transporting cats - baskets and car travel'. The FAB cat friendly practice client leaflet 'Bringing your cat to the vet' also covers the pertinent points.

Advice on cat harmony for cats returning home!

The cat returning home will inevitably smell of the surgery environment. This 'scent challenge' can be the stimulus for aggression in even previously very well-bonded cats when the treated cat returns home. If the affected individual experiences pain, particularly if being greeted by another cat or dog that is fit and exuberant, negative associations can be established that can lead to a deterioration in their relationship.

Here are some tips:

- * Scents acquired by worn clothing can be preserved to some extent by storing them in sealed plastic bags or containers and could be put into the cat carrier on the way home to start the process of making it 'smell like home' again.

* It may be wise, on returning home, to keep cats separate initially for 12 to 24 hours. Owners can groom and stroke them both so that scents are exchanged and the smell of the clinic is less overwhelming, before they meet again.

* Clients should supervise reunions, making sure they are kept low-key and appropriate to the needs of the cat that is coming home. It may even be wise with very emotional individuals, especially if there have been previous behavioural problems, such as aggression or stress-related urinary scent marking, to suggest separating the pets and effecting introductions along the lines commonly employed for integrating a newcomer into the household. (See FAB information leaflet '**First Impressions** – How to create successful first meetings between fellow felines')

* Feliway used in the home environment before a cat is brought back is a useful means of reducing tension in a multi-pet household and the stress of another change in location for the affected individual.

* It may also be helpful, especially if a hospital stay has been prolonged, to confine the returning pet and gradually let it have access to the whole house - in the same way owners are advised when moving house. (See FAB information leaflet '**Moving house with cats**')

* Clients should additionally be warned about the inadvisability of imposing too much attention on the returning cat. If problems do surface the best advice is to seek help immediately from a qualified behaviourist, known to the practice.



Well-informed behavioural advice at this time can be instrumental in making the cat's transition from clinic to home as trouble-free as possible and will be most appreciated.

Bereavement

Many cat owners are highly bonded to their cats and may need bereavement support. If owners are not coping well with a cat's death, refer them to a dedicated counselling organisation, for example the **Pet Bereavement Support Service**, Helpline: 0800 096 6606.

Condolence cards are commonly sent after the death of a pet. When they are hand written and contain a personalised message they can be a source of real comfort to a bereaved client, and underline the fact that the practice has a compassionate and caring attitude to patients and owners alike. FAB has a condolence card which informs the client that a donation has been made in memory of the cat (this is done in the purchase of the cards) and can make owners feel that other cats may benefit in the future from their loss.



Conclusion

Statistics currently show that the domestic cat has supplanted the dog as Britain's most popular pet and it seems unlikely the trend will be reversed.

Cat owners rightly tend to be demanding in relation to their pets and expect a high level of professionalism, interest, and understanding from any veterinary personnel they encounter. When they entrust their feline companions to a veterinary practice they expect the animals to be in the hands of an organisation that is aware of, and genuinely dedicated to, all aspects of their pet's care and welfare. And undoubtedly with the appropriate knowledge, effort and enthusiasm from everyone involved, combined with a willingness to continually learn, evaluate and improve facilities and attitudes, a genuinely cat-friendly veterinary practice, that will be highly valued by its clients, can be created quite readily, and is certain to flourish.

The final word should perhaps go to Kim Kendall, one of our Australian contributors who commented:

‘Understand that most cats are pessimists – they assume the worst will happen. Try not to confirm it for them’.





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The Feline Advisory Bureau
is a charity dedicated to promoting the health and welfare of cats
through improved feline knowledge, helping us all care better for our cats

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