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After working as a locum RVN for a number of years, Lauren settled down in 2010 and now works in a small animal branch practice in London as a Senior Veterinary Nurse.

In 2012 Lauren gained a distinction in Advanced Feline Nursing - a course run by the Centre of Applied Pet Ethology (COAPE). She has a particular interest in pet behaviour, and completed a certificate in the Clinical Application of Pheromonotherapy in Behaviour Problems of Companion Animals. Lauren is the practice's Cat Advocate and passed a Low Stress Handling course in 2015. She has encouraged all the staff to embrace cat-friendly handling techniques.

Lauren is dedicated to the cause of improving animal welfare and has spent much of her spare time in Vietnam helping to rehabilitate bears freed from terrible conditions in captivity, as well as working in Europe, as a member of the WVS, on animal welfare schemes for street cats and dogs.

# Cat handling and associated stress: a clinical nursing perspective

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**ABSTRACT:** Cats are becoming more popular as pets, possibly because they are seen as more suitable for households in which both 'parents' are working – but that is a discussion for another day! Certainly, where I am based in London, research by the Pet Food Manufacturers Association (PFMA) shows that the cat population has increased from 10% in 2013 to 12% in 2014 ([pfma.org.uk](http://pfma.org.uk)). With this in mind, it is up to us to help our clients understand their feline pets better and in turn provide the best care for our patients. However, many owners may be disinclined to bring their cats to the veterinary practice due to worries about their pet's mental well-being. This can be detrimental to the cat's health, as treatable conditions may be left too long for viable treatment options to be used.

In this article, I intend to focus on stress-free handling and management of cats in the practice situation.

## Introduction

It would appear that the ratio of cat clients is steadily increasing in my work place, possibly due to the fact that cats are considered easier to care for than dogs; they are more independent and therefore require less care and attention. This can be particularly appealing to those living in and around Central London where it is more difficult to find a suitable place to walk a dog.

Unfortunately, as the density of the cat population increases in London, individual cats will experience an increase in the stressors they experience. This may lead to behavioural problems, which are of interest to the veterinary profession as a whole and me in particular.

## Handling cats: a historical perspective

In my early years of nursing, I would use the 'grab and hold' technique when handling cats for blood tests, catheterisation and so on, it was the norm back then, I'm not that old, but still, so much has changed in 10 years!

The technique was something like this: get hold of the cat in any way possible, pull/tip it or shake it out of the box, squeeze it tightly into your body so the back claws can't scabble at you, get a firm grip under the chin and really hold the head up, while scissor-locking the forelimbs – nice and tight – so nobody can get scratched!

The next step would be to tightly extend the forelimbs and hold them over the edge of the table, so the cat's head is now at an abnormal and uncomfortable angle. Yes, the cat's jumping off the needle and struggling, but you have a nice tight grip on it – so just keep jabbing that needle into the neck!

It wasn't unexpected for these 'bad' patients to fight their way out of your wrestler-like grip (which of course is why we have to keep that incredibly strong hold on them), growling, spitting and striking out in the process. You'd then chase them round the room for a bit with a towel and gauntlets and eventually, with five of you holding down the legs/head/wriggling hindquarters, you would finally get a nice (haemolysed) sample – good work team!

In retrospect, I'm horrified at what these poor creatures had to deal with. Some of you will unfortunately recognise this only too well – and it's definitely time for some changes to our techniques!

## Handling feline patients: the enlightened approach

I stumbled across the way I handle cats now and have adapted this technique to suit my veterinary surgeon, and myself as we have built trust and confidence in each other over time. I still work with plenty of people who are not confident in these techniques, but change doesn't happen overnight. I can bide my time and chip away slowly.

The first time that I was asked to try a cat-friendly handling technique was during my many years of locuming – I genuinely thought the veterinary surgeon was crazy! The setting was taking a jugular blood sample, in a quiet prep room. The 'mental' cat was getting more and more wound up and trying to strike out as I held her in my normal 'firm' grip. She was vocalising - a terrible, snarling, throat-hissing sound; her head and neck were so tense it was as though they were made of a single, immovable block of wood. It was surely an impossible task!

The vet looked at me, and said, calmly: 'Let's take a break and try again a bit later.'

A sigh of relief and cup of tea later, we headed back into battle and the following dialogue ensued:

Vet: 'I'd like to try something, don't hold her so tight; just lift her head up and don't hold her front paws.' I looked at the vet as though she had lost her mind.

Me: 'But she's going to hideously wound you. Are you mad?'

Vet: 'Let's just try it. I am *totally* responsible, if she scratches me, she scratches me, but I've done this before, and it can work.'

So, with total disbelief, and the expectation of having an enraged cat on the ceiling and a bloodied and disfigured vet on the floor, I let go of those front paws. With my heart in my mouth, I lifted this crazed cat's head. This was unbelievable, what on earth was this woman thinking? The cat did not raise a paw to that vet! Within minutes, the sample was obtained and the cat was able to go home – it was an experience that never left me.

## Conversion and dissemination

After that, I carried on locuming for a good few years. I didn't go leaping into what I refer to as 'minimal handling' I hadn't quite got my head around cats, and after years of tight holding I wasn't going to let that go overnight. However, over time, with really fearsome feline patients, I would look back on that day, and suggest that technique. Most vets refused point-blank to try it, and we continued the fight. Some though, were happy to give it a go, and in most cases the spitting raging ball of hate would allow the sample to be taken, I started to loosen my grip on them in general, not tuck them so tightly into my side, have my hands encircled around the front paws, but as time passed I realised it was merely for 'show' to make the blood sampler feel 'safe' - I was hardly touching the paws at all.

## Put yourself in the cat's place

Really it does make sense. To put it in a human context: you find yourself in a new environment, say a foreign airport terminal - there's loads of noise, your senses are being assaulted and you're feeling confused and a bit scared. If someone were then, without warning, to grab you in a tight bear hug and squeeze you, you would probably, quite rightly, freak out. It doesn't really matter if this someone is shouting loudly in your ear 'YOU'RE OKAY, I'M HELPING YOU - YOUR BAGGAGE IS READY FOR COLLECTION'. The essentials are; you are unexpectedly constrained in a scary environment, with someone shouting loudly in a language you don't understand, and you are alone. You would be a fool not to try and free yourself from that scenario. Obviously, it's much more likely that such a person would approach you calmly, and possibly place a hand on your arm, standing back while they address you. You'd be a little surprised, but with a gentle tone and maybe some hand signals, they would show you that they are not a threat.

With this in mind, what terminal are you more likely to decide to use for future holidays? The one with the crazy airport staff who think it's acceptable to restrain and shout at you, or the terminal where, even though you didn't quite understand what was happening, the person was calm and the rest of your time away was relatively enjoyable. Unfortunately our cats will never have the ability to choose their

destination, however a cat has a similar reaction; a bad experience will create negative associations with your practice and your handling. You might have battled and succeeded in obtaining what you needed on that visit, but the next visit will be more of a challenge. Eventually it will become virtually impossible to obtain samples from that patient, or even perform a basic examination, leading to a reduced ability to care for it and provide the best treatment options. Owners will be less inclined to bring their stressed pet to the vets, or they may decide to take their pet to a different surgery, and easily-treated medical conditions maybe overlooked until the cat is really quite unwell (Rodan, Sundahl, Carney, Gagnon, Heath, Landsberg, Seksel and Yin, 2011)

## The effects of stress on clinical parameters

Additionally, for routine blood sampling, a stressed patient is more likely to provide a sample that gives rise to inaccurate results. We are all aware that glucose results can be affected by stress, but other blood parameters can be affected as well.

### Packed cell volume (PCV)

*Polycythaemia* is an increase in circulating red blood cells. Transient polycythaemia can occur when a patient feels stress, fear or excitement. This can result in splenic contraction, which releases a large amount of red blood cells into the circulation. In this case, the PCV measurement will be elevated, but plasma protein concentrations will be normal (The Merck Veterinary Manual).

### White blood cell (WBC) count

Neutrophilia can be a response to increased stress levels. Adrenaline secretion (through stress or exercise) can be associated with a mature neutrophilia due to temporary demargination of neutrophils, and this may be mistaken for an inflammatory response. (The Merck Veterinary Manual)

### Other parameters

Physiological parameters that can be adversely affected by increased stress levels include: blood pressure, temperature, respiration and heart rate. All of these can be affected and result in abnormal measurements and results with the potential to give rise to an incorrect diagnosis.

Feline-friendly handling is not only important for the welfare and on-going compliance of the patient, it may also be a



big factor in the treatment and diagnosis of conditions.

## Feline behaviour and communication

I can understand that veterinary staff may have a problem with a 'minimal handling' approach due to the risk of injury. We have a perception that to be in control means having all feline 'weaponry' securely gripped. In my experience, this kind of handling only arouses our feline patients more, which may actually result in more injuries to staff. So, to understand why minimal handling techniques work so well, we need to look at and understand feline social behaviour and communication:

- Cats are solitary hunters and are considered self-reliant – they will *avoid* fights with other cats whenever possible. For the veterinary team this means we should be aware that the majority of cats want to avoid conflict, however rough handling, sudden or erratic movements or loud voices can lead to an unexpected and sudden fearful or aggressive reaction in a cat (Rodan et al, 2011).
- As both a predator and a prey animal, cats will often show fear or defensiveness in unfamiliar environments or with unfamiliar people (Rodan et al, 2011).
- Because, unlike dogs, cats are not social animals, they lack techniques to resolve conflict by appeasing each other. Instead they will choose to freeze, flee, fight or engage in a displacement activity, such as sudden grooming. Veterinary staff should understand that a cat that 'freezes' is likely to be signalling anxiety, and is no less stressed than a cat with more overt behaviour such as hissing or striking (Rodan et al, 2011).

## My practice protocol

It continues to amaze me how often I hear of, and on occasion witness, practice staff that still verbally or physically punish cats that they feel are 'misbehaving'. Why we think raising our voices and using rough handling techniques is going to help resolve a situation is beyond me. It will usually only result in a more fearful and anxious patient. Certainly, at times it can be incredibly frustrating working with animals, but the old adage 'slow and steady wins the race' can be applied in many cases.

My practice is very small and blood samples are often taken during consultations

with the owners present. This can put considerable pressure on staff members. In these situations my heart is racing, and once again I'm transported back to imagining scenes of chaos, however, it's important that this is not conveyed to my patient. A deep breath to slow my heart rate, a calming tone and the sample is invariably taken – much to the amazement of the owners, and the satisfaction of the staff involved.

### Our method

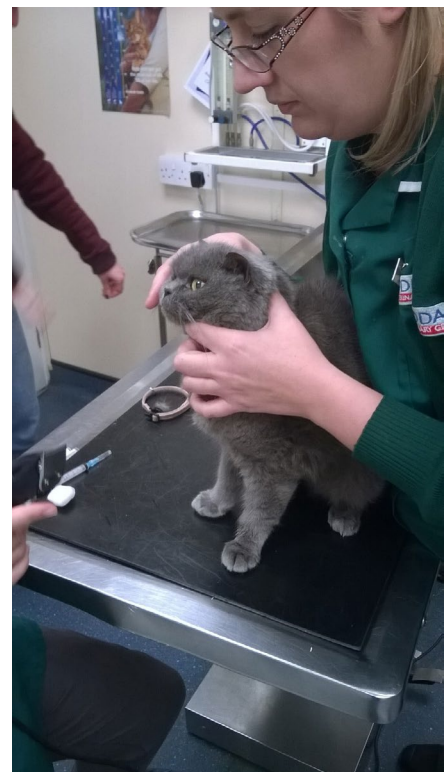
My veterinary surgeon colleague and I have a methodical approach to blood sampling now. The equipment is collected beforehand and I will bring a pheromone-sprayed towel into the room, on the basis that you should always be prepared! The vet will prepare her equipment for obtaining the sample, while I introduce myself to my patient.

It seems obvious, but quiet introductions that give the cat time to adjust to your presence will make a big difference. Stand with your body sideways to the cat, so you are not a looming threat. Look past the cat's ears, as we know that direct eye contact can be considered a threat, and offer your hand for the cat to sniff and investigate. In my experience a gentle rub along the bridge of the nose and a little cheek tickle will help the cat feel relaxed in your company, and additionally help release feel-good pheromones.

We work in stages: first, I will hold the patient's head loosely upwards with one hand for the surgeon to clip the hair; we are lucky to have nice quiet clippers and I would certainly advise investing in some if you only have access to noisy ones, an alternative would be to use blunt-ended curved scissors to clip the hair, not ideal in some anatomical areas, and your clip won't be as close, however you have to weigh up whether you would prefer to have a cat with a lovely bald patch sitting on top of the cupboards and no blood sample, as opposed to a more relaxed cat with a not so bald patch sitting on the table *with* a blood sample!

I now concentrate on gentle tones whilst I use the other hand to slowly stroke the cat's cheek. We have found that this period will indicate how the patient will cope with the rest of the procedure and if there is no struggling at that point, it is likely the sample can be taken with no further issues. I continue chatting and gently stroking the cheek. On occasion a paw may gently rise up, however we have found that most cats do no more than

gently wave it in the air, or even rest the paw on the vet's hand, and we can continue with sampling.



▲ **Figure 1.** Positioning patient and stroking neck, allowing them to adjust to sound of clippers



▲ **Figure 2.** Gently securing head with minimal restraint - at this point we may see if they will be a 'paw-lifter'





Figure 3. Preparing sample site

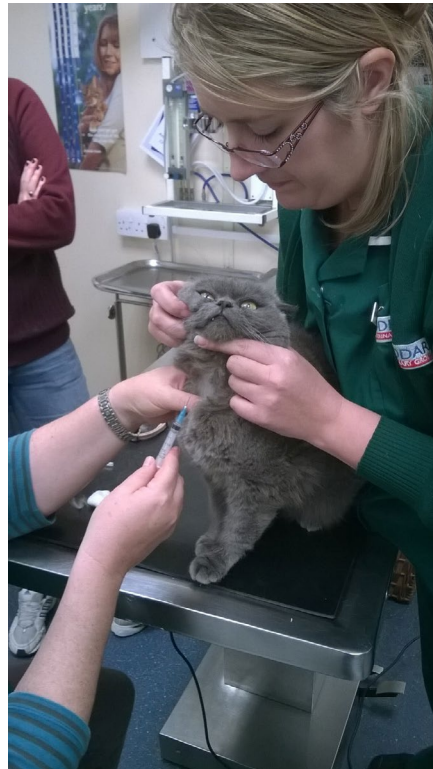


Figure 4. Sampler about to advance for sample taking

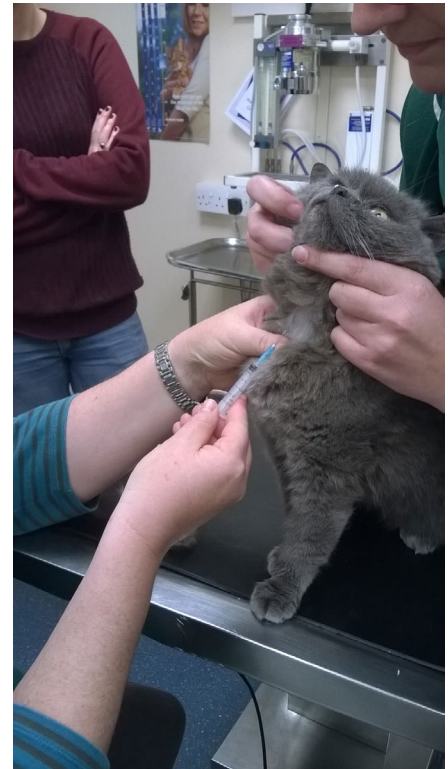


Figure 5. Venous entry gained



Figure 6. Veterinary surgeon starts to obtain sample



Figure 7. Sample being obtained with minimal restraint and low stress to patient—note that she is not attempting to raise paws.

If the front paws are being particularly energetic, I may just place my hand in front of the legs to act as a bit of a barrier, and, with the hand holding the head up,

I can still keep stroking that cheek. If necessary the next step would be to gently

encircle the paws with my fingers in a loose grip (Figures 1 – 7 and 8 – 9).

Some cats are particularly averse to jugular sampling. This could be due to previous bad experiences, or just the level of vulnerability they may feel in that situation. In this case we may decide to gently wrap the cat in the pheromone-sprayed towel that is already on hand, or we may decide to take a cephalic sample as we have found that cats that are particularly unimpressed with handling for a jugular sample may cope much better with a cephalic approach. Handling is much the same, gentle and not too tight. If the cat is a 'cephalic' cat, it is noted on the records, so we are aware of the patient's preferred technique for next time (Figures 10 – 14).

### Alternatives

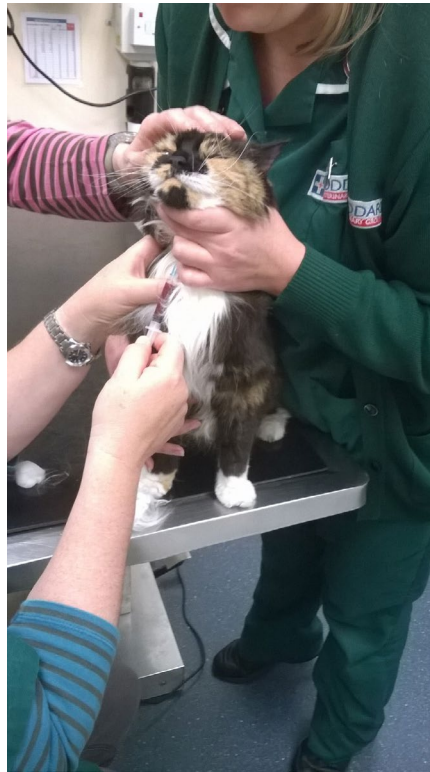
Scruffing cats is considered an outdated technique, and is really not of much use. The ISFM feline expert panel state that they 'strongly support the view that scruffing should never be used as a routine method of restraint, and should only be used where there is no alternative; lifting the cat or suspending its body weight in a scruff hold is not condoned in any way' (Rodan et al, 2011).

I personally find gauntlets cumbersome, leaving me with little control, so with particularly agitated cats I will use a large

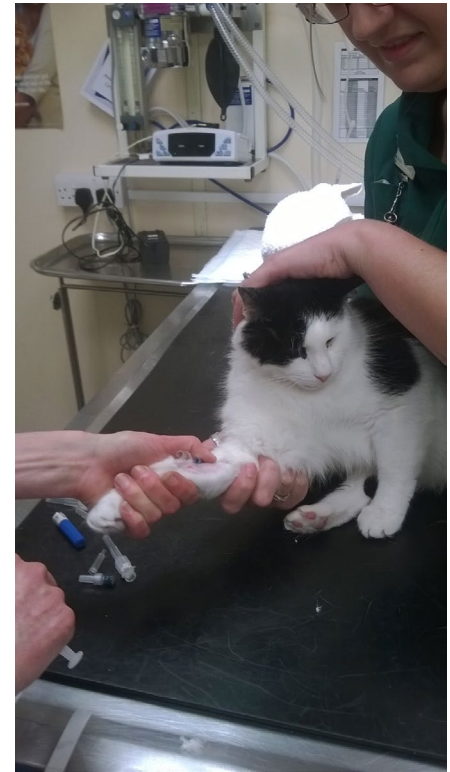




▲ **Figure 8.** Head gently raised, one hand stroking cheek, patient would have been acclimatised to sound of clippers prior to clipping of fur.



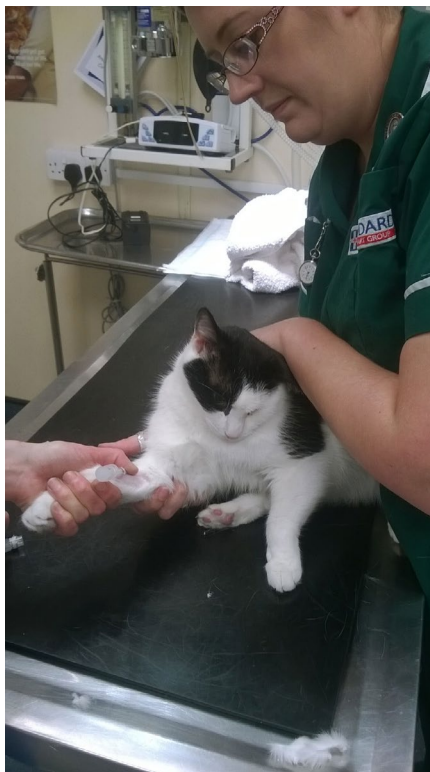
▲ **Figure 9.** Steps as before, note that one of my hands is gently 'blocking' a single paw raise, this is enough to deter further raises in this patient while still maintaining minimal restraint techniques, the owner is able to gently stroke nose bridge and cheek for us now. If both paws want to raise or there are 'violent' paw raises my hand is in a position to counteract, but this was not required for this individual.



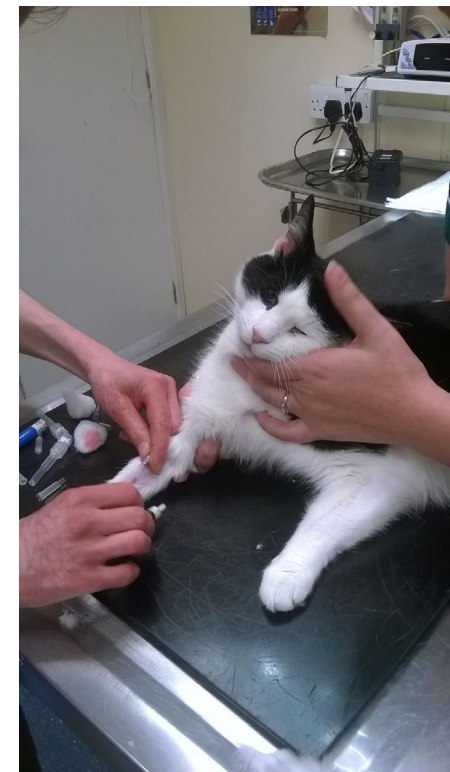
▲ **Figure 10.** This patient began to struggle so I altered my hold to behind the ears, gently massaging the back of the neck. If the patient were to become more distressed I could briefly scruff and re-position or ideally wrap in a towel that I keep on hand as we aim to avoid scruffing. A gentle hold behind the ears will usually suffice.



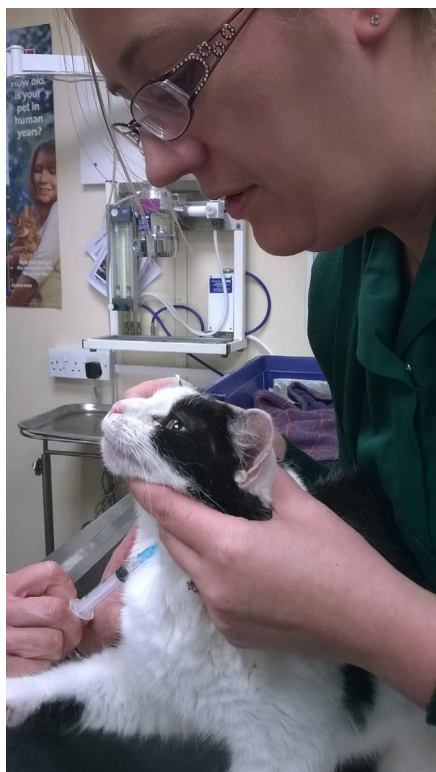
▲ **Figure 11.** The catheter has been placed and the surgeon is beginning to anaesthetise. The patient has had a little struggle and raised a paw. This was a non-violent raise with no extended claws, I am able to block and guide the paw away from the veterinary surgeon and in a few moments the patient will be under anaesthesia.



▲ **Figures 12 and 13.** Patient now under anaesthesia and nearly ready for endo-tracheal tube placement.







▣ **Figure 14.** Blood tests being taken prior to anaesthetic (note no catheter in leg yet) This patient is raising his paw, but it is a gentle raise that does not require any aggressive restraint on part of handler; the paw just gently waved until sample was taken.

towel draped over my patient. This means I am able to control the head and body gently, with little overt pressure. The towel can be moved away from the areas that the surgeon would like to examine.

Another technique that we should be trying to avoid is the 'clicking noise' – I associate, the sharp click with the tongue/cheek or the kissing noise, with horses rather than cats. This is because both of these can be quite harsh, loud sounds to a cat as they have much more sensitive hearing than we do. Furthermore the kissing noise can actually sound a bit like a squeaky mouse, which may actually arouse the patient's senses.

The low murmuring tones (not too deep - we're not growling) tend to be better tolerated in the long run, so you need to put aside embarrassment, concentrate on your patient, and, basically, babble at it! How pretty their eyes are, what a lovely nose, how brave they are and so on. I've found this has two additional benefits:



▣ **Figure 15.** With patients that appear anxious, consider carrying out your examination while they are in the basket - try to avoid tipping/pouring or pulling cats out of baskets. Guide owners to use baskets with easy to remove lids, so the patient feels more secure while you examine.

it actually goes down incredibly well with fretful owners if they are present as it helps to indicate that you have the patient's best interests at heart. To have a nurse holding their pet, telling them how wonderful it is can only be considered a positive (and yes, they are still 'brave' even when being difficult). The second benefit is that it also soothes the person taking the sample, there's no rush, we're all calm and relaxed, and repeatedly saying 'you're doing so well' can relate to both patient and sample-taker alike!

## Auxiliary measures

Good feline handling is something we must aspire to, however it really goes hand-in-hand with improving the practice environment and client education on cats in general. Our patient's stress levels start to rise as soon as the owner pulls the dusty cat carrier out of storage. Simple changes along the route can make a difference to owner compliance when faced with the task of bringing their pet to the veterinary

practice, and how the pet copes once in our care.

Simple changes that can be made:

- Advise owners to ensure that the cat's carrier is a part of everyday furniture/bedding, so that when the cat is brought to the vets they are bringing a little portion of home and their all-important scent profile with them (go to [www.catvets.com](http://www.catvets.com) for useful client literature on transporting their cat to the vets)
- If the carrier has an easy mechanism for removal of the top section, the vet may not even need to remove the cat totally from its basket to examine it – we often take blood samples while our patient sits in the bottom of its basket. We should not be trying to pull or 'pour' cats out of their baskets (**Figure 15**) (Rodan et al, 2011)
- In the practice, try to have separate cat and dog waiting areas. If this is not possible, signs requesting dog owners not to allow their dogs to sniff the cats in their carriers should be posted (it doesn't matter if the *dog* likes cats!). Blankets sprayed with pheromones to drape over cat baskets can be beneficial as they also act as a visual barrier.

## Conclusion

The AAFP and ISFM Feline-Friendly Handling Guidelines are a must-have for veterinary staff interested in improving their cat-handling skills. We must consider ourselves to be constantly learning, if you think you know everything you are falling short in your on-going care for patients. In another 10 years these current handling techniques could be considered outdated, but they are the standard we should be aiming to achieve *now* for the benefit of our patients.

Minimal handling – are you brave enough to take the step?

### References

Pet Food Manufacturers Association ([www.pmf.org.uk/regional-pet.population-2014](http://www.pmf.org.uk/regional-pet.population-2014))

Rodan, I., Sundahl, E., Carney, H., Gagnon, A. C., Heath, S., Landsberg, G., Seksel, K. and Yin, S. (2011). American Association of Feline Practitioners and International Study of Feline Medicine Feline-Friendly Handling Guidelines. *Journal of Feline Medicine and Surgery*, 13(5), 364–75.

The Merck Veterinary Manual <http://www.merckvetmanual.com/>