Caring for elderly cats: preventive healthcare and early disease detection

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What is preventative healthcare?

- **Preventative care** is health care that prevents disease, injury, or illness, rather than treating a condition that has already become catastrophic or acute. The goal of **preventive care** is to help people stay healthy.

What is early disease detection?

- Detection before onset of clinical signs
- 'Apparently healthy' cats
  - May include cats with clinical signs that have not been noticed or considered unimportant by their carers
- Aim: improve quality and length of life through early detection of illness and appropriate intervention
- Clinicians need to sell this concept to their clients!

Why is this important?

- Improved treatment outcome
  - Some conditions are 'curable'
  - Progression of others can be 'slowed'
  - Improved quality of life
  - Better teamwork with carer
- Carer involved, empowered

‘Cats <4.2 kg at the time of diagnosis had significantly shorter survival time compared to cats ≥4.2 kg at diagnosis (P < 0.0001).’
How can we achieve this?

- Lifestage appropriate veterinary care
- Maintain contact with cats and carers throughout the cat’s lifetime
- Individualised approach 'titrated' towards each cat and owner

Developed by FAB, now ICC: icatcare.org

Routine screening: what’s recommended?

- Cats aged up to 7 years
  - Annual health check including weight check, physical examination
- Cats aged 7 – 10 years (Mature)
  - Annual health check: add BP, urinalysis and blood profiles
- Cats aged 11 – 14 years (Senior)
  - Health checks every 6-12 months including: BP, urinalysis, bloodwork and T4
- Cats aged 15 years+ (Super Senior)
  - (Me: health check every 3 months)
  - 6-12 monthly BP, urinalysis, bloodwork and T4

‘Selling’ lifestage appropriate care to your clients

- Chronic kidney disease
  - > 35% of Senior cats
- Hyperthyroidism
  - Around 10% of Senior cats
- Diabetes mellitus
  - Around 0.5% of all cats
- Systemic hypertension
  - 20% of Senior cats
  - 20-60% of cats with CKD
- 10-20% of cats with hyperthyroidism
- Osteoarthritis
  - > 90% of Senior cats
- Cognitive dysfunction syndrome
  - 28% Senior cats, > 50% Super Senior cats

History taking – senior cats

- What questions are important?
  - Weight - has the owner noticed any changes?
  - Appetite - increase or decrease seen?
  - Thirst - any increase?
  - Litter tray and toileting behaviour changes?
  - Urination, defecation - any problems?
  - Mental status - any change (any evidence of cognitive dysfunction)?

History taking - senior cats

- More questions
  - Energy levels - any hyperactivity/restlessness?
  - GI signs - any vomiting or diarrhoea?
  - Any visual deficits?
  - Mobility issues - stiffness, reduced jumping, changes to where sleeps etc
Owner questionnaires

- Can be helpful and save time
  - General health
  - Mobility
  - Cognitive dysfunction

Examination of the elderly cat

- Needs to include:
  - Posture, gait (where possible)
  - Blood pressure
  - Oral/dental examination
  - Thyroid palpation
  - Cardiac assessment
  - Abdominal palpation
  - Eye examination
  - Weight and body condition score
BP measurement

Weight loss: when is it significant?

• When there is a downward trend in weights
• Above a certain percentage of weight lost
• When muscle condition has been lost

Monitor and record the patient’s weight

Assess weight and % weight changes

• Accurate scales
• Weigh and BCS on every visit
• Look at % weight changes
  – < 5% - ? significance: monitor (2-4 weekly)
  – 5-10% - significant: action should be taken
  – > 10% - serious!

% weight change: = (difference in weight / original weight) x 100%

4 Kg cat:
- 3.9 kg = 100g loss = 2.5%
- 3.8 kg = 200g loss = 5%
- 3.7 kg = 300g loss = 7.5%
- 3.6 kg = 400g loss = 10%

65kg person:
- 63.1 kg = 1.6kg (3.5lb) loss = 2.5%
- 61.8 kg = 3.2kg (7lb) loss = 5%
- 60.1 kg = 4.9kg (11lb) loss = 7.5%
- 58.5 kg = 6.5kg (14lb) loss = 10%
Urinalysis

USG screening in elderly cats

- Normal result
  - USG > 1.040 (1.040 – 1.090)
  - No further action required
- Abnormal result
  - USG < 1.035
  - Main differentials CKD, hyperthyroidism, DM
  - Further investigations recommended
- Borderline result
  - USG 1.035 – 1.040
  - May or may not be significant
  - Recommend reassessment in < 6 months

What further investigations?

- Aims
  - Check for common health problems, confirm suspected diagnosis, assess general health
- Blood
  - Ideally
    - Haematology
    - Biochemistry (including Idexx SDMA)
    - Total T4
  - If not poss, pre-anaesthetic screen
- Urine
  - Specific gravity + dipstick

Benefits of intervention

- Many older cats will have clinical or subclinical problems that can be helped by us
  - Eg osteoarthritis, hyperthyroidism, renal disease
  - Possibility of immediate benefit with therapy, may be possible to cure the condition
- Earlier diagnosis helps lead to a better treatment outcome
  - Eg cats with systemic hypertension diagnosed and treated before they go blind
- Healthier cat - happier owner - fulfilled clinician!

What’s the justification for early disease detection?

- Cats are the masters of disguising illness
- Clinical signs are often subtle and gradual in onset/progression
- Many owners perceive a thin elderly cat to be ‘normal’
- Clinical signs can be confusing
- Subclinical illness is common!

How effective is early disease screening?

- 21 diabetic cats, 21 control cats
- Study assessing ocular manifestations of diabetes
- Control cats
  - Not diabetic
  - Age-matched: 10 – 18 years old
  - Not receiving any medication for at least one month
  - Not known by the owner to be suffering from any symptoms of ocular or systemic disease
  - Perceived to be ‘completely healthy’
Results summary
• Urine specific gravity
  – Normal (> 1.040) in a third of cats
  – Abnormal (< 1.035) in a third of cats
  – Borderline (1.035-1.040) in a third of cats
• Blood pressure
  – Significantly elevated in 3 cats (14%)
• Further investigations
  – 2 cats hyperthyroid (10%)
  – 7 cats CKD (33%) including 1 in Stage 3 CKD (creatinine 283 μmol/l)

All of these cats were perceived to be ‘completely healthy’ by their owners!

Blood pressure: 2 cats hyperthyroid, 1 normal.

3 diabetics diagnosed with concurrent hyperthyroidism during the study:
t14.67, 78, 214 nmol/l

Current experience: Inglis Vets
• Cats aged 7-10 years
  – Around 10% of those invited attended ‘senior checks’
  – Very popular with owners
  – 20% of cats referred on to vets for further treatment/advice (mostly dental, obesity management)
• Cats aged 11 – 14 years
  – > 30% of cats referred on to vets for further treatment/advice (dental, CKD, hyperthyroidism, hypertension, etc)
• Cats aged 15 years and over
  – > 50% of cats referred on to vets for further treatment/advice (dental, CKD, hyperthyroidism, hypertension, etc)


Table 1: Prevalence of intercurrent disease in cats and dogs presented for vaccination.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Age (years)</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>4-5</td>
<td>6-15</td>
</tr>
<tr>
<td>Dogs and cats</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No. examined</td>
<td>304</td>
<td>131</td>
</tr>
<tr>
<td>No. (%) of animals with intercurrent disease</td>
<td>128 (41%)</td>
<td>88 (69%)</td>
</tr>
<tr>
<td>Cats</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No. examined</td>
<td>102</td>
<td>41</td>
</tr>
<tr>
<td>No. (%) of animals with intercurrent disease</td>
<td>36 (35%)</td>
<td>24 (59%)</td>
</tr>
<tr>
<td>Dogs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>No. examined</td>
<td>200</td>
<td>99</td>
</tr>
<tr>
<td>No. (%) of animals with intercurrent disease</td>
<td>57 (43%)</td>
<td>55 (55%)</td>
</tr>
</tbody>
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Paepe et al JFMS 2013; 15:8-19

• 100 healthy cats
  – 6-10 y (n=56), Aged 11y+ (n=44), not on medication for 2 m, clinically healthy
  – 11 cats too thin (CKD, hyperthyroid, FIV), 40 too fat
  – Blood pressure high in 8% cats: 160-170 mmHg (n=4); > 180 mmHg (n=4)
  – Systolic heart murmur in 11 cats (all normotensive, one hyperthyroid)
  – Goitre: 20 cats: 3 cats with increased TT4

Other studies
• Dell’Osa and Jaensch 2016 Aus Vet J 94:317-323
  – Cats aged 6-9 years assessed in similar detail
  – ‘Of the 130 cats, only 26 had no abnormalities identified in the testing panel. Most changes were minor or considered artifactual; however, changes diagnostic of significant disease or warranting additional evaluation were identified in 25 cats (19.2%)’
• Some research on owner expectations of vaccination and preventative healthcare appointments Belshaw et al 2017-2019
  – Checklists appreciated
  – Owners like the opportunity to discuss a range of issues whether related to the reason for the visit or not

Why might a carer choose not to attend?
• They may feel that their cat looks fine so why bother the cat or the vet?
  – Stress puts carers off vet visits, especially if considered non-essential
• They may feel that a cat walking with a stiff gait, a thin cat with gradual drop-off in weight etc are normal/to be expected in older cats
• They may feel that investigations are likely to be stressful, costly or painful
• They may worry that there is no treatment available to help their cat (so why bother to investigate)
• They may fear that the vet will euthanase their cat
My vision for the future...

• Integrate lifestage care into your practice
• Make it normal to
  – Follow iCatCare’s guidelines
  – Measure blood pressure in older cats
  – Assess urine samples in older cats
  – Include assessments as part of the annual health check (ie offer as much as possible included in your normal prices!)
  – See old cats more frequently

Successful integration of Wellcat protocols

• Include BP and UA screening tests free of charge (or in normal fee)
  – Guarantees good uptake
  – Helps bond and educate clients
  – Financial gain through appropriate use of follow-up diagnostic tests, treatments etc
• Start by integrating UA screening
  – Start with older patients
    (age 📈 problems)

Successful integration of Wellcat protocols

• Consider
  – Client evenings/open days
  – Owner questionnaires (waiting room)
  – Train owners to bring in urine samples
  – Timetable longer appointments for old cats
    • Ideal 20 minutes minimum
  – Combined Vet and Nurse appointments
    • 20-30 mins with VN: history, weigh, BP, eye exam, urinalysis
    • 10 mins with VS: collate data, additional questions, make a plan

Successful integration of Wellcat protocols

• Consider
  – Telephone/skype consultations
  – SMS/email health questionnaires with vet nurse/vet callback
  – Option for carers to drop off urine samples
  – Option for carers to come in without their cat
  – Utilise your VNs!
• It is possible but it is also hard work to achieve – don’t be daunted!

Affiliation and Further resources

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Video tutorials
Cat café videos for owners
Ten minute tips for vets/VNs