Managing FCV outbreaks in multi-cat communities

The following information is aimed at veterinary surgeons responsible for the health and wellbeing of groups of cats. It is for guidance only, and is intended to help stimulate structured healthcare discussions with clients.

**Education and expectations**

Control measures will vary from population to population, taking into account:

1. **The demographics of the population**
   - the age range of cats
   - their reproductive status
   - biosecurity
     - contact between this population and other cats
     - other sources of infection
     - how rigorous the measures taken are to reduce this risk
   - the group size
   - population turnover

2. **The type of population**
   - Clinic
   - Rescue cattery
   - Breeding cattery
   - Boarding cattery
   - Private household

**Healthy carriers**

- Cats recovered from FCV continue to shed virus, some for years. These FCV carriers help maintain infection in the group.
- The bigger the group of cats and the greater their contact with the outside world, the greater the likelihood that the group will contain FCV carriers.
- In the absence of evidence to the contrary, it is advisable to assume that medium to large groups of cats contain carriers.

**Vaccination**

- Vaccination reduces the clinical signs of FCV, but may not completely prevent them.
- Vaccinated cats can also become FCV carriers when subsequently exposed.
- Vaccination against FCV does not protect against, or treat chronic gingivostomatitis: affected cats are likely to test FCV positive, be infectious and shed FCV for prolonged periods of time.

**Sick cats**

- Several pathogens can cause respiratory signs in cats including FCV, feline herpesvirus and *Bordetella bronchiseptica*.
- Clinical signs are not pathognomonic but can suggest a particular pathogen.
- Testing is necessary to confirm the pathogens you are dealing with and will maximise the likelihood of successful control.
- The ages at which cats develop clinical signs of infection may define a gap in their immunity; this could indicate one way to adapt existing core vaccination schedules for the population.

**Health**

- In high turnover populations with direct or indirect outside contact, a low level of mild FCV-related disease might have to be tolerated.
The following scoring system can be used to discuss disease and control with the population owner and to identify areas for improvement. Aim to improve scores and move the population from level 1 to 3 over time, especially if disease levels are unsatisfactory, to reduce the susceptibility of the population to outbreaks.

Level 1: basic
- Separate healthy and sick cats - clinical isolation
- Diagnostics for cases
- Disinfection
- Individual food bowls and litter boxes
- Hygiene
- Quantify contact with outside world
- Core vaccination
- FCV boosters every 3 years

Score each circle
0 = complete fail
1 = some effort
2 = good effort
3 = fully compliant

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Level 2: intermediate
- Reduce group size to 3 or fewer
- Quarantine incoming cats for 1 week
- Personal protective clothing
- Prevent mixing of cats from different populations
- Additional kitten vaccines if necessary
- Augmented vaccination FCV boosters moving to annual

Cross sectional diagnostics (cases & controls)
Sampling multiple cats at a single time point

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Level 3: advanced
- Separate carriers and non-carriers
- Longitudinal diagnostics
- Treating cats with hyperimmune sera
- Not available in all countries
- Consider changing vaccine antigen if disease persists

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Recommended use of ABCD FCV control evaluation tool
- Use as a focus for discussions with the owner/manager.
- Identify areas of good practice... and areas where control could be improved.
- NOTE: It is not possible for ABCD to remotely define target scores. However, ...
  - All populations should score relatively highly at level 1, even in the absence of disease.
  - Larger populations should score higher at levels 2 and 3.
  - Populations with regular endemic disease should be improving their scores and aiming to move to higher levels of control.

The scoring system (and the conversation that goes with it) would be particularly useful:
- In the event of an outbreak.
- Where endemic levels of disease are considered too high.
- As part of regular meetings to improve population management.
- Plan a series of new interventions to improve population score and move from red towards green.
- Keep a record of scores over time and monitor how the population is changing.