

Purpose

1. To present the final report and recommendations of the Seasonal Canine Illness (SCI) study group.

Information

2. The Communities and the Environment Standing Committee set up a study group to examine issues associated with Seasonal Canine Illness due to public concern over the last two years. At its meeting on 7th April 2011 the study group agreed the objectives of this review as being:

To gather evidence and make recommendations to ensure that effective partnership working is taking place; and that sufficient resources are applied to address the issue.

3. The County Council has no specific responsibility or function to deal with domestic animals, which is very much left to voluntary organisations such as the RSPCA, the Animal Health Trust or District or Borough Councils. Notwithstanding this, the County Council does have powers and duties of general well-being and community leadership, and critically, owns and manages public open space on which Nottinghamshire residents are encouraged to walk and enjoy.
4. Though the Study Group did not meet again until 14th October and there were concerns expressed about an absence of activity, it is evident that during the course of the spring, summer and early autumn, there was clear evidence of partnership working and that resources were applied to this matter, though there is a question as to whether these were or ever can be enough.
5. In the Nottinghamshire area, it was the Forestry Commission which took the lead in bringing together local landowners to raise awareness of the SCI as it might pertain to their land and in liaising with the Animal Health Trust to provide information to the public via websites, hard copy publicity and questionnaires on the impact of SCI on individual dogs. All landowners used the same poster (from the AHT) and were asked to direct any incidents to the AHT. A joint press release in August/September with the Veterinary Poisons Information Service and information pack was sent to all vets.

6. It was apparent that SCI was prevalent during late August, through September and into early October and a summary of the impact this year is as follows:
 - 91 reported cases of SCI during 2011, the majority being in Norfolk.
 - Nottinghamshire had 10 reported cases in the Sherwood area and 3 at Clumber Park, but none in late September, fitting the pattern of previous years:

Sherwood Pines (FC)	2
Centre Parcs	4
Blidworth Woods	2
Clumber Park	3
No details	2
7. A seminar was organised by the County Council in conjunction with the AHT and at Rufford Mill on 2nd November 2011 at which its leading researchers were able to report back on the latest findings and thinking. All local landowners and veterinary practices were invited and the seminar mirrored a similar event held in Norfolk
8. Detailed notes of the meeting are attached as Appendix 1, while Appendix 2 is the most recent press release from the AHT, which provides a summary of the key points emerging from the two seminars.

Future Actions and Programme of Work

9. It is still clear that no vaccine or solution to the SCI issue has yet been found and that further research is required. At the same time, advice and information needs to be prepared and given to landowners and dog walkers, well before the anticipated season in 2012.
10. The following actions are planned:
 - The AHT will continue to lead on this matter and be the repository of all academic and veterinary research into the development of a vaccine.
 - Nottingham University research is ongoing with results from questionnaires and research expected in early 2012
 - The County Council will assist in a review of the communications arrangements with the Nottinghamshire landowner group early in 2012 in the light of the latest findings. It is anticipated that any new publicity for the public will be prepared and distributed in late spring/early summer.

Recommendations

- In the event of any case or outbreak of SCI in Nottinghamshire, the County Council should aim to arrange a site visit from one of the experts who have been assisting the AHT.
- The County Council should monitor developments during the course of the year and report back to the Communities and Environment Standing Committee's successor towards the end of 2012.
- Appropriate signage should be deployed on Nottinghamshire County Council land frequented by dog walkers during the anticipated period, i.e. late August through to early October, warning of the risk of SCI. The advice to the public should be to keep dogs on a lead and on the path.
- The County Council should continue to engage positively with local land owners and offer guidance and advice on the use of warning signage as necessary.

Councillor Geoff Merry

Chair of Seasonal Canine Illness Study Group

Background Papers: Press Releases from the AHT
AHT Questionnaire issued to Dog Walkers
Press Releases from Forestry Commission

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Glossary of Terms

Seasonal Canine Illness – SCI

Forestry Commission – FC

Animal Health Trust – AHT

Natural England – NE

VPIS – Veterinary Poisons Information Service

Appendix 1

SEASONAL CANINE ILLNESS - ANIMAL HEALTH TRUST EVENT

2 NOVEMBER 2011, 7PM – 9PM AT RUFFORD MILL

NOTES

Dr Patrick Candler (Group Manager, Country Parks, Nottinghamshire County Council) welcomed people to the event which had been organised to share the initial findings of the Animal Health Trust (AHT)'s investigation into Seasonal Canine Illness (SCI).

The AHT's Dr Richard Newton (Head of Epidemiology and Disease Surveillance) who was leading the investigation, Isabelle Cattin (Head of Internal Medicine) and Dr Jennifer Stewart (Clinical Pathologist) gave presentations highlighting the background and ongoing development of the investigation, including the clinical history and the relevant pathology issues (**please see attached presentation slides**).

Further to the topics included on the slides, the following issues were underlined and clarified: -

- progress had been made from when this issue had been first raised in September 2010;
- most dogs who had suffered the illness had recovered within 7-10 days, subject to receiving veterinary treatment;
- samples of the individualised questionnaires used for each of the relevant sites (Clumber Park, Sandringham Estate, Sherwood Forest and Thetford Forest) were shown and made available at the event. The questionnaires included gridline maps to enable walking routes to be recorded and the overall areas of greatest risk to be identified;
- the questionnaire response rate had been higher from Sandringham Estate and Thetford Forest than from the Nottinghamshire sites, which was likely to be due to the closer location of the Animal Health Trust to those sites and the high profile and media interest in Sandringham. It was underlined that a lot of the issues covered in the presentation were raised in relation to Sandringham, on the presumption that this was a consistent disease and that the issues were applicable to the other locations (although this was not known for certain at this stage);
- questionnaires had been distributed via the Caravan Club and Camping and Caravanning sites at Sandringham, via the National Trust for Clumber Park, via veterinary surgeries that had recorded cases and via the AHT's website;
- in relation to the frequency of cases, it was not certain whether there were clear peaks and troughs as the data suggested or just

that more data was available for some weeks than others. It was highlighted that in Nottinghamshire, the peak period had been from the last 2 weeks in August to the first 2 weeks in September, for the third consecutive year. The figures for Sandringham in 2011 followed a similar pattern;

- although the figures relating to stick eating, distance travelled to the site and number of walks per day were from a small sample size, they were still regarded as statistically significant. The figures suggested that dogs that had eaten sticks on their walks had less than half the chance of suffering SCI as other dogs. Also, the likelihood of contracting the illness increased with the number of walks per day. The number of cases that had involved travelling more than 50km to the site was greater than those living more locally;
- the Forestry Commission's website highlighted possible cases reported in Blidworth Woods, Sherwood Forest and Clumber Park. Dr Newton commended this as a good example of raising public awareness of the issue;
- the spatial mapping undertaken around the findings of the Sandringham questionnaires for 2010 and 2011 revealed the footpaths around the Caravan Club and the Camping and Caravanning sites to be high risk areas. As a result of these findings, a site visit was arranged by the Animal Health Trust for 16 September 2011, with external expertise provided by Dr Mark Spencer, who was a well qualified botanist from the Natural History Museum. On the day of that visit, two cases were reported to local vets, one of which resulted in a fatality. The visit concentrated on the two main high risk areas and Dr Spencer did not find any plants or fungi in that area that were non-native or considered poisonous through contact alone. He also considered that the woodland habitat was botanically typical and probably unchanged in the last 50 years;
- the visit revealed no evidence of blue-green algae; bracken / fern spores, exotic toxic plants and recent abundant toxic fungi, thereby helping to rule out previous theories that these were possible causes. However, an unusually large amount of pigeon feathers and carcasses were found on the site. SCI cases reported in Great Packington, near Coventry, had linked the illness to dogs that had been in contact with pheasant pens. This suggested a potential infectious ecological spillover from birds to dogs, similar to those seen elsewhere including henipah viruses (passed from fruit bats to horses in Australia) and WNV (transmitted to people and horses by birds). *Trichomonas gallinae* was a parasite which caused 'canker' in pigeons and also affected pheasants. Incidents of autumnal seasonal garden bird mortality, affecting finches for example, linked to confirmed or suspected *Trichomonas* had been reported in recent years (thereby highlighting some shared traits with SCI). Expert advice had been sought from Dr Becki Lawson, European Veterinary Specialist in Wildlife Population Health at the Zoological Society of London, who had undertaken a PHD in *Trichomonas*. Although this

theory was not supported by Dr Lawson, the AHT were not dismissing it at this stage;

- the latest theory related to *Neotrombicula autumnalis* (harvest mites) and whether they could be a vector for a pathogen and thereby capable of passing on disease. Vets dealing with SCI cases had noticed lesions and harvest mite chiggers when clipping affected dogs' fur in preparation for injections. Dr Spencer had suffered numerous harvest mite bites (but no subsequent illness) on his visit to Sandringham. Independent to the AHT exploring this theory, the Forestry Commission and Nottingham University had both received e-mails from vets highlighting a number of recent SCI cases all of which involved harvest mite infestations. Again, external expertise was sought, this time from Dr Anne Baker of the Department of Entomology at the Natural History Museum. Helpful advice on next steps had also been received from Ian Lipkin of Columbia University, an internationally recognised authority on the use of molecular methods for pathogen discovery;
- the AHT requested that vets examine and clip fur in suspected SCI cases. The AHT was open-minded and not willing to dismiss any possibilities at this stage. AHT officers were happy to receive questions and queries via e-mail. Whilst recognising owner sensitivities around this subject, the urgent need for post mortems in fatal cases in order to collect more information on SCI was underlined. The AHT would provide such post mortems for free and could return the dog to the owners. Failing that, in cases where the owners wanted to keep the dog for burial, it would be helpful if vets could take tissue samples themselves.

In response to questions and comments from attendees, the following points were clarified:

- working dogs had not been affected on the Sandringham site, whereas in Nottinghamshire working dogs such as terriers, that run with their heads down to the floor, were felt to be over-represented in the number of cases. Dogs affected at Center Parcs in Nottinghamshire were predominantly smaller dogs, rather than working dogs, and these did not necessarily live further than 50km away. It was highlighted that a question about behaviour had been included in the questionnaires (as to whether dogs sniffed the ground while being walked in these areas). The survey findings had also not revealed that certain breeds were more prone to SCI (although there could be a predominance of smaller dogs in these locations due to the nature of the sites);
- the harvest mites were present in these locations from the larval stage and once they had become chiggers they got into position to wait for a warm-blooded host to come into contact in order to feed from them. They could also be physically transported between sites, especially if infecting birds as well. It was highlighted that the harvest mites may have been around for a long time without causing illness but in conjunction with another agent it may have resulted in the emergence of a new condition;

- further consideration was needed to ascertain any possible effects of climate and temperatures on the issue, partly with a view to being better able to predict when such incidents would occur;
- it was highlighted that in one veterinary surgery in Nottinghamshire, the only dogs that were presenting themselves with SCI symptoms were found to be infested with harvest mites and these were not found on other dogs at the surgery that had been clipped for different reasons. However, in another surgery in the area, a number of cases of harvest mite infestations had been recorded, but none with symptoms of SCI. Any information on such cases where mite infestations had not resulted in illness was also needed by the AHT to enable them to compare these different reactions and to clarify whether the mites needed a further agent in attendance to cause the illness. The AHT would welcome any case reports from vets, including old cases;
- the nature of the wooded sites in question meant that sandy soil was a common factor but there were no apparent implications to be drawn from this;
- with regard to the next steps, the AHT needed to continue to build up knowledge of this issue. The ultimate aim would be to find a vaccine for the problem but it was felt that this was a long way off, with a number of stages of work needed before that was likely;
- Elected Members from Nottinghamshire County Council welcomed the ongoing investigation by the AHT and their presentation at this event, both of which would help them to reassure the public that the issue was not being ignored. It was underlined that all agencies present tonight had a key role in continuing to raise awareness and that such awareness-raising had contributed towards a significant reduction in the number of fatalities (in 2010 there had been 53 reported resulting in 10 deaths, whereas in 2011 so far there had been 91 cases, resulting in only 3 deaths). The AHT would be producing a press release asking vets to look for signs of harvest mites when treating collapsed dogs;
- there was no evidence that the illness had been transferred from affected dogs to other dogs or pets in contact with them;
- it was agreed that attendees should share their e-mail addresses with the AHT to enable relevant information to be shared on an ongoing basis.

Dr Candler thanked the AHT for their presentation and all attendees for their input.

Appendix 2

Monday 28 November 2011

UPDATE ON PROGRESS OF SEASONAL CANINE ILLNESS INVESTIGATION

AHT briefings bring vets and professionals up-to-speed with SCI investigation

A veterinary charity investigating Seasonal Canine Illness (SCI) has held two briefing events for vets and stakeholders being affected by the condition.

Scientists and clinicians from the Suffolk-based Animal Health Trust (AHT) travelled to Norfolk and Nottinghamshire to update professionals on the progress of its investigation.

More than 50 veterinary professionals and stakeholders attended the briefings which were held on Monday 31 October and Wednesday 2 November.

Dr Richard Newton, of the AHT, who is leading the SCI investigation, said: "We are hopefully coming towards the end of the second autumn in which we have been investigating SCI, with fewer cases being reported to us in the past few weeks. We have managed to collect a lot of information from vets and also from dog owners since we became aware of the recurrence of SCI at the beginning of September 2011."

"These briefings were designed to let those professionals closest to the investigation know what progress we've made and in what areas we still need their help."

In September scientists from the AHT visited specific, SCI-affected areas on the Sandringham Estate, one of its SCI investigation sites, with British field botanist, Dr Mark Spencer, from the Natural History Museum.

Dr Spencer stated that there was no obvious evidence of any plants, fungi, blue-green algae or bracken spore toxins, which have been

proposed as causes, which would cause the clinical signs of SCI in dogs through direct contact.

Dr. Newton added: "Mark was confident that there was nothing obviously unusual in the woodlands and that the plants and habitats he observed did not provide evidence of abundant and recently emerged botanical or fungal species that would explain the recent autumnal re-emergence of SCI at the Sandringham Estate".

"Because of this we have been looking at other possible causes. Information made available to us in 2011 suggests there may be links between SCI and harvest mites, and to a lesser extent links between SCI and wood pigeons, and perhaps other bird species. We have been working with experts in the necessary fields, in the UK and internationally, to follow up these lines of enquiry."

The AHT is continuing its investigation based at five sites – Sandringham Estate and Thetford Forest in Norfolk, Clumber Park and Sherwood Forest in Nottinghamshire, and Rendlesham Forest in Suffolk.

It is still requesting that owners who have walked their dogs at any of the five study sites since the beginning of August 2011 complete the relevant questionnaire on the AHT website, regardless of whether dogs became ill. Getting information from non-affected animals is just as important to the investigation as that provided for sick dogs.

The charity expects that the number of cases will start to rapidly decline in the next few weeks, as they did at this time in 2010.

Dr. Newton, said: "We expect to see fewer cases from now until next autumn but dog owners should still stay vigilant. We did have several cases reported to us in December 2010 so we may not have seen the end of SCI in 2011 just yet."