

Scientists warn of seasonal increase of deadly rabbit disease

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Credit: University of Liverpool

Scientists at the University of Liverpool are using big data and text mining methods to create a warning system for a devastating disease in pet rabbits and sheep.

Flystrike – or myiasis – is caused by larvae of *Lucilia sericata* (the green bottle fly) feeding on the surface of the skin. This can cause severe tissue damage that is susceptible to secondary bacterial infections and may result in death of the animal.

Researchers from the Small Animal Veterinary Surveillance Network (SAVSNET) used [electronic health records](#) from over 40,000 rabbit consultations collected from veterinary practices across the UK. Computers were programmed to screen all clinical records for suspect cases of flystrike and these records were read by a human researcher; this approach identified some 300 cases of flystrike among these rabbits.

Seasonal nature

"By analysing the dates on which rabbits were presented to veterinary practices with flystrike we were clearly able to identify the strong seasonal nature of this devastating disease, with most cases occurring between June and September," said Rachel Turner a third year veterinary student who carried out the work as part of her veterinary undergraduate course. "As well as confirming the seasonality of the disease, we can now use these results to warn owners when to check their rabbits for any signs of flystrike and treat their rabbits to prevent it."

Flystrike occurs from Spring to Autumn, when female flies lay their eggs on susceptible hosts such as rabbits and sheep. The flies are particularly attracted to soiled fur and diseased skin – often around an animal's back end – that may be associated with diarrhoea, loose faeces or other discharges, or an animal's inability to clean themselves effectively. Owners should check their rabbits frequently to make sure they are healthy, clean and can groom themselves properly. If they have any concerns they should take their rabbit to a veterinary surgeon immediately as the disease can progress extremely rapidly, within 24 hours, causing severe welfare problems and ultimately killing affected

animals.

Valuable data

Dr Phil Jones, who helped supervise Rachel's project said: "SAVSNET collects very large volumes of real-time data and this work is a fantastic example of how we can turn this data into valuable research, helping to identify those animals most at risk, whilst simultaneously providing a timely health message for owners of pet rabbits and the veterinary surgeons that care for them. As well as helping [rabbit](#) owners, we hope this research will ultimately develop into a valuable forecasting tool for farmers, as flystrike can also be a massive problem in the national sheep flock."

Provided by University of Liverpool

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