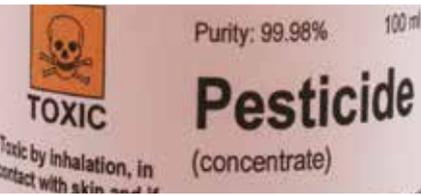


# Toxic Times



## Welcome to the Autumn edition of Toxic Times

Welcome to the Autumn edition of Toxic Times, where we'll be covering the subject of fungi ingestion, and the difficulty of correctly identifying the fungi involved, as well as the timely issue of over-indulging in this year's bumper crop of blackberries.

There are details of the first half of next year's CPD dates and details of different ways to buy case credits.

As always, we would love to hear of your experiences, or of any suggestions for future articles.

Enjoy the Autumn, Bonfire Night, mushrooms on toast and blackberry crumble!



## Seasonal Canine Illness

Cases of Seasonal Canine Illness are usually seen between August and November, and generally present with dogs showing signs of vomiting, diarrhoea and/or lethargy within 24-72 hours of walking in woodland.

Although no definite cause has been identified, there are a number of common themes which may increase a dog's susceptibility to SCI.

The Animal Health Trust ([www.aht.org.uk/sci](http://www.aht.org.uk/sci)) is closely monitoring and investigating SCI, and it would help them greatly if you would contact them regarding any suspected case of Seasonal Canine Illness.



# VPIS Subscription and Payment Options

**There are two different options available to use our service based upon your specific needs.**

## **Pay-As-You-Go**

You buy case credits online and top them up when needed, with several credit bundles to choose from. Furthermore, if you opt for an Auto Top Up, you will get a discounted price per credit.

For further details, visit [www.vpisuk.co.uk](http://www.vpisuk.co.uk)

## **Contract**

As a busy practice, you may require our 24-hour emergency service several times a year. With the contract option you only pay once a year (based on your previous and expected usage), which saves you the bother of remembering to top up when your case credits are running low. Furthermore, online CPD and class-based CPD courses are included in your subscription, thus saving you money compared to buying the credits and the CPD elements separately.

For more information about our contracts, please email [admin@vpisglobal.com](mailto:admin@vpisglobal.com)

## **NOTE:**

*If your practice is part of a group, then only one subscription package needs to be purchased to cover membership and case credits for all associated practices.*

## Cats and flea treatments intended for dogs

The International Cat Care charity (formerly the Feline Advisory Bureau) is highlighting the dangers of flea treatments, which are designed for dogs, and containing the insecticide permethrin, being applied to cats.

Permethrin is highly toxic to cats, and the VPIS receives many enquiries regarding cats which have been inappropriately treated with dermal applications of canine flea products, particularly spot-on treatments.

Cats are also at risk from secondary exposure through contact with other pets treated with permethrin. A large number of cases develop tremor, twitching or convulsions and there have been associated fatalities.



# Fungi: Issues with identification, risks and outcome

There are over 4,000 species of larger fungi in the UK, and as it is the fruiting body that is normally visible above ground, this is the part that is most likely to be ingested. Famously, truffles (*Tuber* species), are located below ground, with dogs and pigs trained to hunt them.

Identification of fungi is extremely difficult, partly due to the fact that there can be large variation in shape, colour and size, and that these characteristics themselves can change during the development of the fungi, and its later deterioration.

In situations where an animal is observed to have ingested some fungi, as much information as possible should be gathered, such as where and how the fungus was growing, ( in woodland, on wood, in grass, in a clump or as a singleton), the description and smell and if possible, a sample collected. In addition, if photographs can be taken, given that many 'phones now have camera functions, it may greatly assist the identification. Even regurgitated fungal fragments, if correctly stored and prepared, can be useful in determination of the species (see below).

The presence of any of the following features indicate that the specimen may contain amatoxins and cause liver damage thus triggering a prompt response with regards to treatment:

**i)** White or pale gills: there are edible species with white gills, but unless there is certainty, it is better to err on the side of caution.

**ii)** Rusty brown or deep pink gills: these features are rare in species native to the UK, although of course brown-gilled mushrooms are readily available from supermarkets and are edible.

**iii)** Presence or remains of a volva: a structure found at the base of the fungus which encloses some developing forms. Although the volva or cup is obvious, it may not be collected once the fungi is broken.

**iv)** Presence of a "stipe ring" which is a frill on the stalk; this of course does NOT apply to commercially grown mushrooms.

If the fungus has brain-like folds, this could indicate a species containing gyromitrin, which cause liver and kidney damage. The edible morels have a similar structure which may be confused with these species, but again, better to be over-cautious if unsure.

As a general rule of thumb, the sooner the onset of clinical effects (within 6 hours of ingestion), the less toxic the fungi, and may indicate one of the following syndromes:- gastrointestinal irritant poisoning (generally with no other organ system effects), ibotenic acid poisoning, muscarine poisoning or psilocybin poisoning.

Onset of clinical effects with these fungi can be between 15 minutes and 6 hours, and may include vomiting, diarrhoea, lethargy, hypersalivation, which may be profuse, muscle spasm, ataxia and uncharacteristic behaviour.

If ingestion was recent, an emetic and activated charcoal should be administered, with largely symptomatic and supportive care to ensure hydration.



Where animals present with late onset of clinical effects (more than 6 hours post ingestion) one of the following three syndromes should be considered:- amatoxin poisoning, gyromitrin poisoning or orellanine poisoning.

With amatoxin poisoning, classically with *Amanita* species, the animal is typically asymptomatic for between 6-12 hours, with lethargy, gastrointestinal effects and severe hypoglycaemia developing from 6-24 hours.

Apparent recovery then follows, but liver enzymes and prothrombin time may be elevated (24-48 hours post ingestion). Hepatic and renal failure occur from 48-96 hours, with death from 5-16 days.

Gyromitrin poisonings also manifest with gastrointestinal signs at 2-24 hours post ingestion, with hepatotoxicity and renal failure occurring at 48-96 hours.

Orellanine poisoning, most commonly seen with *Cortinarius* species, has a latent asymptomatic phase of 36 hours to 17 days. There is a pre-renal phase (usually around 7 days) which is mainly gastrointestinal and neurological, and at 7-21 days post ingestion, renal failure develops. Due to this potentially very long latent period, there is an increased likelihood of mis-diagnosis for this type of poisoning in animals.

These more toxic fungi exposures are fortunately not the norm, and since 1995, the VPIS has only had 45 reports of poisoning with Amatoxins, Gyromitrins and Orellanines, and where follow up has been returned, 4 deaths have been reported.

The VPIS is liaising with Kew Gardens in a joint project aimed at collecting data on animals exposed to expertly identified fungi so that we can further our understanding of the risks and outcomes of such incidents. If you contact us regarding a fungi poisoning we will ask for photographs, send you a short questionnaire to complete, and details on how to send a sample of the fungi to Kew Gardens.

In brief, the sample should be air-dried, wrapped in paper (not plastic) and sent, in a rigid container to an address we will give you at the time of your enquiry. Any regurgitated samples should be refrigerated and send via priority post to avoid long transit delays outside of refrigeration.

As always, we are very appreciative of your help with our projects, and realise that it involves extra work for you, although hopefully the results will enable us to give more precise identification and more tailored information on the treatment of fungi cases.



## Luminous necklaces and bracelets for Halloween and Bonfire Night

**Children (and some grown-ups!) love the luminous necklaces, bracelets and hoops that are available from fair grounds, street sellers and novelty shops, especially at Halloween and Bonfire Night.**

As they often resemble chewy or throw toys, dogs will play with them, bite them and be exposed to the chemicals that are contained within.

There are normally two components to the mixture, a luminescer and an activator. In the case of the novelty items, these chemicals are usually already mixed, whereas in items such as emergency light sources, for boats, camping and cars, bending the outer plastic tubing mixes and activates these chemicals, producing the luminescence.

Although the chemicals are of low toxicity, they are irritant and cause pain and the clinical features relate to this property. Typically, hypersalivation and foaming/frothing of the mouth is seen with immediate onset with possible hyperactivity and aggressive behaviour.

Where ingestion has occurred, we would recommend oral fluids. If the chemicals have entered the eye, irrigate thoroughly with water or saline, stain with fluorescein and treat supportively. For dermal exposure the skin should be washed with warm soapy water and a topical steroid cream used to treat any irritation if required.

There have been over 500 cases reported to the VPIS (50 where follow up data has been returned) and all animals have had uneventful recoveries.



# CPD Courses

The VPIS offers both **Class-based CPD Courses** and **Online CPD Courses** aimed at keeping veterinary professionals up-to-date in Toxicology.

## Online CPD Courses

Hosted on Vetstream's site ([www.vetacademy.co.uk](http://www.vetacademy.co.uk)), we provide a series of 10 online CPD modules (also covered in our class-based workshops) covering the most common poisonings in veterinary medicine. Each module is worth 1-hour of CPD and contains real-life case studies and self-assessment tests.

Designed to fit around your schedule, these easy-to-use and interactive online CPD courses will give you the ability to arrange your CPD training at a time that fits in with all the other demands of a busy veterinary practice.

## Class-based CPD Courses

Our Class-based CPD Courses are as popular as ever and we aim to provide convenient course dates and locations throughout the year. With presentations delivered by our VPIS expert speakers, these workshops will enable you to update your CPD training and get the latest information in Toxicology, with the opportunity to discuss interesting cases with other attendees.

In order to ensure you have a place, please book early (and you will also benefit from an early-booking discount!).

We have two remaining courses in 2013. Dates and locations are as follows, with all courses starting at 9:45am and finishing at 4:45pm:

## 2013

*November 11th London (early booking rate ending soon!)*

## 2014

*January 22nd London*

*February 12th Brighton*

*March 12th Birmingham*

*May 7th Edinburgh*

*June 11th Exeter*

For further details, please visit our website [www.vpisuk.co.uk](http://www.vpisuk.co.uk) or contact us at [admin@vpisglobal.com](mailto:admin@vpisglobal.com)



## Availability of Parvolex® (acetylcysteine)

We have recently received a number of enquiries regarding the lack of availability of Parvolex® (acetylcysteine) for the treatment of paracetamol poisoning. Please be aware that this product is no longer manufactured but that a generic acetylcysteine formulation is available from Teva UK Ltd (telephone 0207 540 7000).

# Blackberries



**Weather conditions over the last couple of years have made for a huge harvest of blackberries this autumn, which spells good news for wildlife, from dormice to foxes.**

Each year, we receive a few calls regarding dogs that have over-indulged, and with the hedgerows full of blackberries, dogs may present having ingested large quantities.

Generally, no more than mild, self-limiting gastrointestinal signs can be expected, although we have had 2 cases (a 6kg Husky puppy, and a 10kg Border Terrier), where the animals developed bradycardia, dullness, weakness and lethargy, in addition to vomiting and diarrhoea.

They made full recoveries following supportive care and rehydration.



# Meet the Team



**Name:** Philip Rawson-Harris  
**Job Title:** Information Scientist

**How long have you worked for VPIS?**  
Just over 3 months now

**What do you most like about your job?**

I most enjoy the variety that I experience at the VPIS. For example, one day its ferrets ingesting paracetamol, the next a horse eating privet, a parrot with smoke inhalation - or a dog having eaten a child's chemistry set – the list goes on and on and only gets stranger. That, and having a great team behind me, of course.

**What do you most dislike about the job?**

I most dislike hearing about cases where the animal has had to be put down, either due to cost or unsuccessful treatment. It's always sad to hear about an unsuccessful case especially when you consider the animal's suffering, the meaning that animal had to its owners and the unfortunate nature of being exposed to often just one thing that has caused this result.

**What is your most memorable VPIS telephone enquiry?**

Whilst I am quite rapidly adding to a portfolio of weird and wonderful cases, something more mundane is possibly the most memorable – salt water ingestion in a dog. We were rung about a dog, which was extremely sick. It was about 6 hours since ingestion of sea water, during which he had been passed from vet practice to vet practice and when we were called the situation was dire. The dog was

unresponsive but showed evidence of vomiting and profuse diarrhoea correlating with hypernatraemia signs and severe dehydration. The owners suggested he had also been convulsing and there was evidence of swelling on the brain. It was one of my first cases, the senior IS and I issued the advice to start bringing down the sodium concentrations through a process of several IV fluid treatments and drugs. Whilst follow-up has not been returned as of yet, it is a constant reminder to me of toxicology and the variety of unconsidered mechanisms involved in poisoning cases (even something as simple as osmoregulation).

**Do you / did you have a pet / pets?**

I have a pet snake and a greyhound – although the latter is really my parents. The snake is a two-year-old corn snake called Loki (named after the Nordic God of mischief). Having owned him since he was a baby he has grown from being tiny to over 2 feet and counting (they can grow up to 4 to 6 ft). New to exotic animals, it has been a learning experience for both me and my housemates, especially the frozen mouse drawer in the freezer or asking them to warm up dead mice in their



hands (and a disastrous episode involving a microwave that we don't talk about). Overall, I am very glad I have him and so are my housemates and given the long duration they can live (around 20 years at a push) he's going to be a very welcome addition for some years to come. The greyhound is a ex-racing dog who has a keen interest in all things toxic especially chocolate and no doubt before I came to the VPIS our local vet was ringing about our numerous visits.

**What are your hobbies / other interests?**

I like to do a lot of climbing which has ranged from ice climbing in Scotland to bouldering every other day at a local climbing centre. I particularly enjoy climbing as after a bad day it strangely helps to unwind by focusing your mind on something else whilst providing a great workout and allowing you to meet some bizarre but interesting people. I also have a keen interest in art particularly 3D art resulting from pottery at school. Although I am still process of finding somewhere not too costly to make pots in London I used to specialise in a lot of glass, stoneware and graffito pots (two glazing techniques, the first uses very hot kilns with glazes and the second using scratching into different coloured clays). Favourite artists include, Klimt, Julian Voss-Andraea and Antony Gormley

**Favourite food? .**

Anything Italian. Spaghetti Carbonara – boring but brilliant.

**Where is the most unusual place you have ever visited?**

The most unusual place I have visited has got to be the Sahara Desert which I trekked across in 2006 for charity. An amazing place, fascinating wildlife, especially the scorpions and some remarkable people and lifestyles.

**Favourite quote:**

*"Everybody is a genius. But if you judge a fish by its ability to climb a tree, it will live its whole life believing that it is stupid."*  
Albert Einstein