

# 2013 NAMA Toxicology Committee Report

## North American Mushroom Poisonings

By Michael W. Beug, PhD, Chair NAMA Toxicology Committee  
P.O. Box 116, Husum, WA 98623 email: [beugm@evergreen.edu](mailto:beugm@evergreen.edu)

### Abstract

In 2013, NAMA received mushroom poisoning reports involving 67 people, 49 dogs and 1 cat. No human deaths were reported to NAMA in 2013. There were seven cases involving ingestion of *Amanita* species containing potentially deadly amatoxins. In one incident, the person had consumed seven *Amanita bisporigera* mushrooms and survived without needing a liver transplant. He received aggressive treatment following the protocol developed by Dr. Todd Mitchell. Dogs did not fare nearly as well when they ingested mushrooms containing amatoxins. Three to five deaths were from consumption of mushrooms in *Amanita* section *phalloideae*, one dog death was from amatoxins in *Galerina cf. marginata* and one dog death from amatoxins in *Lepiota cf. subincarnata* (= *josserandii*). Of five dogs who consumed *Inocybe* species (muscarine containing), one died. One dog died from eating a whole pile of Morels. Five dog deaths were from unknown causes where mushrooms were suspected. One cat death was reported after the cat consumed *Amanita muscaria*.

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The 2013 mushroom season was notable for the absence of human fatalities reported to NAMA. The number of cases of ingestion of *Amanita phalloides* in the Pacific Northwest rose from a normal of 0-1 cases to five cases due to late summer and early fall rains that led to an outstanding mushroom season with large flushes of *Amanita phalloides* in the parks of Portland OR, Seattle WA, and Vancouver B.C. In contrast, severe drought in California meant a greatly reduced mushroom season and no reported human ingestions of any *Amanita* sect. *phalloideae* mushrooms. In the rest of the United States and Canada, human ingestions of mushrooms in *Amanita* sect. *phalloideae* were low compared to other recent years. We did, however, read of one extended family from southern Mexico where four boys 10-17 years old and one girl of 14 died, the parents survived after a long hospital stay, and the grandfather who consumed only a little of the meal, survived without hospitalization. In contrast, in New York, a 65 year-old man survived a meal of seven deadly *Amanita* mushrooms (consumed raw) after aggressive treatment following the still experimental protocol of Dr. Todd Mitchell of Santa Cruz, CA. In one other New York case, a 75 year-old man consumed just one *Amanita*. Success in his case was attributed to use of activated charcoal, N-acetyl cysteine, and oral milk thistle, but I would attribute the success solely to the IV fluid replacement and the consumption of only a small amount of mushroom. There is no convincing evidence that activated charcoal, N-acetyl cysteine or oral milk thistle are of use in treating amatoxin cases, though this protocol remains the currently accepted procedure in North America. My current best advice is to have the doctor or hospital immediately contact Dr. Todd Mitchell in the event of a suspected amatoxin case. By the close of the 2013 season, we had received reports of seven people from the United States and Canada sickened by amatoxin-containing mushrooms plus sixty other cases. Six people were hospitalized after ingestion of *Amanita muscaria*, six were ill after consuming red *Russula* species, and three were ill after mistaking *Scleroderma* species for puffballs. Seven very bad trips on *Psilocybe* species

were reported and four people reported a flagellate rash after consuming either raw or undercooked Shiitake (*Lentinula edodes*). There were four incidents of people ill after consuming assorted packaged mushrooms. At least some of these mushroom assortments had their origin in Yunnan Province, China. While hunting with David Arora in October, he told me of visiting mushroom markets in Kunming, China where he observed toxic mushrooms on display as well as edible species. He learned that dealers buy everything and sell the toxic species mixed in with the edible ones, apparently relying on no one getting enough of any one toxin to wind up severely ill. One ill U.S. purchaser of dried Porcini (from a Minnesota mail-order source), found pieces of unidentified gilled mushroom in with her Porcini. Not all middle-of-the-night calls to NAMA identifiers involved a poisoning. One toxicology identifier, Sister Marie Kopin, got a 3:30 AM call from a lady concerned about mushrooms growing on a door in her house. It turns out that there was a leaky bathroom above.

One intrepid mushroom collector, determined to eat everything he brought home, no matter how long it had lingered in the refrigerator, repeatedly learned that eating heavily maggot-riddled decaying mushrooms can lead to several hours on and leaning over the porcelain throne.

In hunting mushrooms with David Arora, our conversation also turned to tasting unknown mushrooms as part of the identification process. I use all of my senses when identifying mushrooms. I rip mushrooms apart to understand texture, I smell them, and I chew them (and then spit out the remains). I tell students that they can safely taste any unknown mushroom, even a deadly *Amanita*, as long as they spit it out, but that tasting a plant could kill you. Other than an occasional burning sensation from a peppery *Lactarius* or *Russula*, or a bitter taste or a foul taste from time to time, I have only once had a bad reaction. That was to *Crepidotus cf. applanatus* and I felt like my throat had swollen shut and I could not breathe for a moment. David then told me of his friend Ryan Snow who was demonstrating to a class that you could safely taste any mushroom, even *Boletus pulcherrimus*. He chewed a small piece in front of the class and was quickly nauseous and then dizzy for hours. He repeated the demonstration to a different group a few weeks later and this time he was dizzy and nauseous as soon as he merely touched his tongue to a piece of *Boletus pulcherrimus*. In response to reading the *Boletus pulcherrimus* story, Bill Bakaitis reported a similar case where a woman prepared a breaded and fried large puffball. She reported that as soon as the fork touched her mouth, she experienced swelling of the lips, tongue, and throat even though she did not chew or swallow any of the mushroom (no one else in the family had any reaction). Bill felt that her case may be the result of the power of Classical Conditioning on the Autonomic Nervous System – for example laboratory animals can be ‘trained’ to die from innocuous stimuli that have previously been paired with toxic substances and later presented without the toxic agents.

I learned more about the challenges of figuring out poisoning cases in one human poisoning that involved a report from a family member (“with some medical training”) about a hospitalized individual suffering Rhabdomyolysis-induced kidney failure, something never before seen in a North American case. I received photos of a mixed table full of mushroom species, mostly a red-capped *Russula*, but various other white-gilled species. Knowing that red-capped *Russula* species can cause nasty symptoms, I concluded that was the probable problem. Slowly, over many email exchanges, I learned of delayed onset symptoms with elevated liver enzymes. I looked again at the pictures where I now noticed what looked like it might be the cap and upper half of the stem of a “destroying angel” *Amanita cf. bisporigera*. I jumped on the amatoxin bandwagon, but the reported Rhabdomyolysis puzzled me. Was the Rhabdomyolysis due to a mixed ingestion with the *Russula* species? Was this a newly reported effect of

amatoxins? The yard was re-examined and “destroying angel” mushrooms were growing there. Eventually, Dr. James Addison went into detective mode and solved the case. He has written up a report for (along with lots of helpful definitions of medical terms). Suffice it to say for this report - I was just looking at the mushrooms left that were NOT eaten. The amatoxin conclusion was off base.

For animals, we report just the 49 cases where the culprit mushroom could be determined reasonably well or where the case itself was very unusual. There were twelve reported dog deaths and one cat death. The cat consumed *Amanita muscaria* in the owner’s home. Cats are not known to eat mushrooms that are growing outside, but they will eat *Amanita muscaria* found indoors, especially when dried. For cats, *Amanita muscaria* consumption is often fatal. For dogs, *Amanita muscaria* (and *Amanita aprica* and *Amanita pantherina*) is typically only fatal if the dog is very young (one death this year), very old (one death this year), consumes a large quantity (both the puppy and the old dog this year), and or is treated with atropine or valium at the vets. This past year, one dog was treated with valium, a central nervous system depressant, which greatly slowed its recovery. Since ibotenic acid and muscimol, the main toxins of *Amanita aprica*, *Amanita muscaria* and *Amanita pantherina*, are also CNS depressants, the dog stayed in a comatose state much longer than would have normally been expected. One other dog poisoning from *Amanita muscaria* var. *alba* was massively over-treated by the vet, probably resulting in a longer recovery than would have happened had the dog’s stomach simply been pumped (if needed) and IV fluids administered.

Amatoxins could be confirmed or strongly implicated in the death of five dogs. Three cases involved *Amanita* species in section *phalloideae* , but one dog died from amatoxins in what appeared to be *Galerina marginata* and one died from toxins in what appeared to be *Lepiota subincarnata*. Most years many dogs in California consume deadly *Amanita* species, but with the drought, dog deaths in California were significantly reduced.

There were five reported cases and one death where dogs consumed *Inocybe* species. Dogs frequently consume and are poisoned by *Inocybe* species. In one instance, a couple had gathered a large haul of morels and turned their attention away. They returned to find that the dog had gulped them down. The dog died. Five other dogs died from unknown toxins where the owners were convinced that the cause was mushroom poisoning, but partially consumed mushrooms were not found in the yard. Chunks of mushroom were not observed in the dog vomit either. Consequently, these cases remain a total mystery.

Table I. Human Poisoning frequency by Species (North of Mexico)

Mushroom Species	# People	% of total Individuals
<i>Amanita</i> species (sec. <i>phalloideae</i> )	7	10.4
<i>Psilocybe</i> spp	7	10.4
<i>Amanita muscaria</i>	6	8.9
<i>Russula</i> spp (red)	6	8.9
<i>Lentinula edodes</i>	4	5.9
<i>Cantharellus</i> sp	3	4.5
<i>Morchella</i> sp	3	4.5
<i>Panaeolus cinctulus</i> (hallucinogen)	3	4.5
<i>Scleroderma</i> sp	3	4.5



Table II. Human Cases Involving Amatoxins

Mushroom Details and ID Method	When/Where	Sex/Age	Onset (hrs.)	Symptoms and Comments
<i>Amanita phalloides</i> ID by victim while very slowly recovering over period of months. Photos appeared to MW Beug to be consistent with ID.	10/11/13 OR	F 49	13	Diarrhea, cramps, vomiting, muscle spasms, drowsy, weak. Four days hospital with IV rehydration and rest after consuming 2 medium, cooked.
<i>Amanita bisporigera</i> “Mycologist ID” Note: 7 mushrooms were consumed raw. Liver function peaked mid 5,000, INR 1.9	7/2/13 NY	M 65	14	Diarrhea, intestinal cramps, vomiting, nausea. Treatment IV fluids, IV antiemetics; activated charcoal, Legalon SIL, percutaneous biliary drainage. Complete recovery.
<i>Amanita bisporigera</i> ID by mycologist. Weiland-Meixner test for amatoxin. Consumed 1 mushroom.	9/15/13 NY	M 74	>6	Diarrhea! Intestinal cramps, vomiting, nausea, slightly elevated LFTs. Activated charcoal, N-acetylcysteine, oral milk thistle, IV octreotide.
<i>Amanita sect. phalloideae</i> From Mexican Newspaper Account (using Google translate from Spanish to English)	7/7/13 San Jose del Pacifico, Mexico	4 boys 1 girl 3 t	?	Four boys died (ages 10-17), 1 girl of 14 died, parents had long hospital stay, grandfather ate and was not hospitalized. Treatment unknown.
<i>Amanita sect. phalloideae</i> reported by Todd Mitchell MD	BC	?	?	Survived.
<i>Amanita sect. phalloideae</i> reported by Todd Mitchell MD	WA	?	?	Survived.
<i>Amanita sect. phalloideae</i> reported by Todd Mitchell MD	WA	?	?	Survived.
<i>Amanita sect. phalloideae</i> reported by Todd Mitchell MD	WA	?	?	Survived.

Table III. General Human Poisoning Cases

Mushroom Details and ID Method	When/Where	Sex/Age	Onset (hrs.)	Symptoms and Comments F, M = female, male
<i>Agaricus xanthodermus</i> ID by MH Shaw from description	7/21/13 CO	M 6	0.5	vomiting after consuming 4-5 buttons, 1-2 larger ones.
<i>Agaricus xanthodermus</i> ID by MH Shaw from description	9/19/13 CO	F 60	2	Nausea and dizziness after tasting a small amount raw.
<i>Amanita muscaria</i> ID by MH Shaw from photo	7/15/13 MT	M 63	1	“buzzing” in hands and abdominal pains. ½ of a mushroom soaked overnight in salt water and cooked.
<i>Amanita muscaria</i> ID by Marti & Ken Cochran from photos. Patient ID was “the blusher”	10/26/13 MI	2M 34, 60 F 35	?	F ate 2 T was sweating. M 60 ate ½ mushroom and vomited. M 34 ate ½ cupful, no details.
<i>Amanita muscaria</i> ID by hospital ER staff	11/3/13 WA	M 63	2	Drowsy, disoriented, responds only to painful stimuli.
<i>Amanita muscaria</i> and <i>Entoloma rhodopolium</i> group ID of mushrooms by JF Ammirati	11/7/13 WA	F 85	1	Sick. No details. Did slowly recover.
<i>Armillaria tabescens</i> ID by “mother based on spore print and characteristics”	9/8/13 SC	M 18	8-10	Diarrhea, intestinal cramps, vomiting, nausea, weak after ¾ cup raw
<i>Boletus edulis</i> ID by reporter, features reported to MW Beug were consistent with ID	9/9/13 WA	M 34	7 hours	Flushing, dizzy, intestinal cramps, disorientation, vomiting, weak, headache, bloating, gas for 3 days from very wormy mushrooms.
<i>Boletus huronensis</i> ID by affected person conferring with mycologists <b>after</b> meal.	7/18/13 ME	F 46	1.5	Chills, diarrhea, intestinal cramps, muscle spasms, vomiting for extreme 6 hrs. One mushroom cooked.
<i>Boletus pulcherrimus</i> ID by Ryan Snow demonstrating you could safely taste any mushroom if not swallowed.	2 times years ago CA	M adult	1?	Chewed and spit out small piece (1x), simply touched to tongue (2 <sup>nd</sup> x), both times nauseous, dizzy for a few hrs.
<i>Cantharellus sp</i> (from Oregon) ID by affected person.	10/11/13 CO	F 26	2	Vomiting after meal cooked (+ 3 glasses of wine).
<i>Cantharellus sp</i> ID by friend of patient.	10/26/13 WA	F 57	1	Chills, salivation, intestinal cramps, vomiting, headache.

<i>Cantharellus sp</i> Purchased from major store. Cooked as part of a family meal.	10/27/13 AZ	F 3 ? 5	1-2	Fever, intestinal cramps, vomiting (4x), nausea, weakness. Given pedialyte. Parents not ill.
<i>Chlorophyllum molybdites</i> suspected, no good description	10/17/13 CO	M 62	3.5	Severe vomiting and diarrhea from “regular mushroom” from football field.
<i>Chlorophyllum molybdites</i> ID by MH Shaw from description	8/11/13 CO	M 50	1	Nausea, vomiting, & diarrhea. Raw or cooked unknown.
<i>Chlorophyllum molybdites</i> ID by MH Shaw from description	5/31/13 HI	F 52	1.5	Severe vomiting from raw mushroom
<i>Coprinellus micaceus</i> ID by MW Beug from photos	9/19/13	2 child	3	Vomiting 5-6x (2M)
<i>Grifola frondosa</i> ID by friend of person reporting.	10/3/13 NY	F 73	4	Flushing, intestinal cramps, vomiting. Previously could eat this species.
<i>Grifola frondosa and</i> <i>Megacollybia rodmani</i> ID by person reporting.	6/11/13 CT	M 36	4.5	Diarrhea, fatigue from consuming over-mature mushrooms.
<i>Hebeloma sp.</i> possible ID by Vera Evenson from photo	7/17/13 CO	2M 9,9	0.75	vomiting, stomach ache, sleepy (2M)
<i>Laetiporus cf gilbertsonii</i> ID by D DeShazer from photos	9/8/13 CA	? ?	?	Presented with nausea and in fear of “wrong mushroom.”
<i>Leccinum sp</i> ID by affected person.	9/16/13 WA	M ?	~12	After some dried, raw, had mild stomach upset, concern.
<i>Leccinum sp</i> ID by MH Shaw from description	9/24/13 CO	F 32	0.5	Nauseated, vomited 3x, watery diarrhea 6x. Microwaved for 1.5 minutes.
<i>Lentinula edodes</i> undercooked	1/5/13 ?	M 60+	48	Red streaks on neck and upper body; severe itch.
<i>Lentinula edodes</i> Purchased as “flower mushroom”	2/12/13 NC	M 41	12	Extreme itching and red welts on skin, rash-like symptoms. Ate 1 dry pound cooked.
<i>Lentinula edodes</i> ID and report by Kathie Hodge	4/30/13 NY?	M 50	24	Flagellate dermatitis lasting 7 days from 30-40 small, fresh specimens raw in salad.

<i>Lentinula edodes</i> ID by restaurant where served. Connection between rash and mushroom made after second incident.	8/5/13 TX	F ?	12+ time #1, 2 day time #2	Awoke to itching scalp and neck leading to flagellate rash down back, across stomach, hips. Second time at same restaurant, the meal led to whip-like lashes on skin
<i>Morchella "elata" sp</i> Purchased at store, cooked. Previously eaten no problem.	8/18/13 NY	F 35	1.75	Chills, diarrhea, dizzy, intestinal cramps, sweating, drowsy, weak, flatulence,
<i>Morchella sp</i> ID person unclear	5/18/13 ID	? 65	?	Nausea, vomiting, elevated BUN creatine, AST and ALT normal. IV fluids.
<i>Morchella sp + Pluteus cervinus</i> ID by person affected	5/11/13 IN	M 56	2	Chills, flushing, diarrhea, nausea, weakness, general malaise, bloated.
<i>Omphalotus sp</i> Forwarded by John Plischke	7/4/13 PA	M 26	?	Vomiting and cramps after mistaking the "Jack-O-Lantern" for Chanterelles.
<i>Omphalotus illudens</i> Report forwarded by David Rust	8/20/13 KY	F ?	?	Ill, no details.
<i>Panaeolus cinctulus</i> (= <i>P. subbalteatus</i> ) ID by MH Shaw from photos	4/26/13 HI	2F teens	<1	Dizzy, nausea, abdominal pain (2F); headache (1F)
<i>Panaeolus cinctulus</i> ID by Alan Rockefeller	6/12/13 OH	? ?	0.3	diarrhea after ingesting small amount for recreation.
<i>Pleurotus porrigens</i> ID by trained mycologists including affected person.	10/28/13 BC	M ?	~2	Slightly dizzy, itchy skin, sweat. Soon felt "stoned," hot and cold. After 1 hour vomited (2x), recovered after 1 more hour.
<i>Psilocybe cubensis</i> (dry) Photo ID MW Beug, JF Ammirati	10/20/13 WA	M ?	3 days	Presented at ER with severe hyperthermia (temp 108°F).
<i>Psilocybe sp.</i> probable – blue-green coloration reported.	4/1/13	F 18 M 18 M 21	~4	Anxious, dry mouth, difficulty breathing and swallowing (F); "dry skin" (M, M)
<i>Psilocybe cf cyanescens</i> Photo ID MW Beug, JF Ammirati	10/27/13 WA	M teen	?	Tachycardic at 104, very large pupils, giggly in ER
<i>Psilocybe sp</i> Photo ID MW Beug, JF Ammirati	10/31/13 WA	? ?	?	Patient in Emergency Room (ER), no details.
<i>Psilocybe cf cyanescens</i> Photo ID MW Beug, JF Ammirati	11/26/13 WA	M ?	?	Poison Center called for headache, feeling unwell, no hallucinations.

<i>Pycnoporellus alboluteus</i> ID by Vera Evenson	7/22/13 CO	M adult	7	4-5 hrs. of cramping, vomiting, and diarrhea, unwell for few days after cooked mushrooms.
<i>Ramaria rasilispora</i> var. <i>scatesiana</i> ID by MW Beug	5/27/13 WA	F ?	15	Diarrhea then frightened for future.
<i>Russula sp</i> (red) ID by MH Shaw from description	8/3/13 CO	F 33 M adult	4	Nausea and vomiting (M, F). Small taste raw, then cooked. Expected <i>Russula xerampelina</i> .
<i>Russula sp</i> (red) Victim ID as “shrimp <i>Russula</i> ”	8/5/13 CO	M 37	6	Nausea and vomiting after ½ cup cooked.
<i>Russula sp</i> (red) ID by MH Shaw from description	8/7/13 CO	F 41	2	Nausea, vomiting and abdominal pain from cooked.
<i>Russula sp</i> (red) ID by MH Shaw from photos	8/8/13 CO	F 51 M adult	?	Symptoms unclear. Drunk patients wanted <i>Amanita muscaria</i> but got <i>Russula sp</i> .
<i>Scleroderma sp</i> ID by MW Beug from photos Note: they also consumed a red- pored Bolete that they regularly eat without adverse effects.	9/29/13 TX	F 58 M adult	0.5	Chills, dizzy, cramps, sweating disorientation, salivation, vomiting, nausea, weakness, headache (F). Heart rate and blood pressure low (M).
<i>Scleroderma cf cepa</i> ID of specimen by FM Rhoades	9/15/13 WA	M 60	0.5	Sweating, vomiting, weak, malaise, hypotension (systolic 62). IV fluids. Recovered 24 hr.
<i>Suillus granulatus</i> ID by victim who reported same experience with old <i>Megacollybia rodmani</i> and old <i>Grifola frondosa</i> .	10/12/13 CT	M adult	0.75	Initial malaise and fatigue; fluid diarrhea at 6.5 hrs. Old maggoty mushrooms well cooked after 4 days in fridge.
<i>Turbinellus floccosus</i> Forwarded by John Plischke III	7/4/13 WV	? ?	3-6	Dizzy, vomiting and diarrhea. Duration 20 hours.
Assorted wild mushrooms collected by person susceptible to severe contact dermatitis from various mushroom species.	1/7/13 CA	F 35	6	Poison oak-like rash – red, swollen itchy skin, raised welts. Suspected one of the edible species (candy caps, hedgehog and black trumpet).
Assorted cultivated mushrooms – white button, baby bella, shiitake, oyster	9/12/13 TX	F 50	0.5	intestinal cramps lasted 8 hours after 10 mushrooms eaten cooked.
Plastic bag of assorted wild mushrooms left in car for a week and molded.	10/14/13 WA	F 25	-	Inhaled spores. Chills, fever, intestinal cramps, muscle spasms, drowsy, headache.
Unconfirmed TV news report of 2 deaths (separate incidents?) after taking mushrooms.	1/1/13 ?	F 19 M?	-	Female fell 11 stories from apartment window; Male fell from even higher.

Table IV. Animal Poisoning Cases

Mushroom Details and ID Method	When/Where	Animal Sex/Age	Onset (hrs.)	Symptoms and Comments
<i>Agaricus sp</i> Photo ID by J. Lindgren	10/28/13 WA	Dog ?	?	Dog sick at vet from young brown staining species.
<i>Amanita cf ocreata</i> “small amount” ID person unknown, outcome unknown.	1/4/13 CA	Dog ?	12	Diarrhea and unwell. Next day liver enzymes in thousands, IVs installed.
<i>Amanita sec phalloideae</i> ID UC Davis School of Vet Sci. Amatoxins in urine	2/6/13 CA	Dog M 7	8	Vomiting, weakness, lethargy. Anticoagulant drugs, gall bladder aspiration. Euthanized.
<i>Amanita sec phalloideae</i> ID by B Burch	6/19/13 OR	Dog F 11	5	Vomiting. Death 40 hours post ingestion.
<i>Amanita sec. phalloideae</i> Suspected from symptoms and features (white with a ring).	10/16/13 MN	Dog ?	?	Highly elevated liver enzymes. No other details. Outcome unknown.
<i>Amanita phalloides</i> ID by N Wilson	10/15/13 MA	Dog M 10	24	Severe Vomiting. Acute liver failure and death.
<i>Amanita aprica</i> ID by owner after viewing J Lindgren photos	5/20/13 WA	Dog ?	?	Dog had taken a large bite of mushroom, suffered classic ibotenic acid poisoning.
<i>Amanita aprica</i> same toxins as ( <i>A. muscaria</i> ) Photo ID by J. Lindgren. Dog took one bite of mushroom.	6/15/13 WA	Dog 7	2	Vomited, excessive drooling, unaware, poor muscular control, violent tremors, elevated temp, racing heartbeat. Normal next day.
<i>Amanita muscaria</i> suspected “red cap/white stem”	4/15/13 TX	Cat F 17	?	Consumed small amount, found dead next day.
<i>Amanita cf muscaria</i> ID by A Voitek from photos of mushroom remains.	? NL	Dog 0.75	4-5	Loss of balance, seemed disoriented, restless, muscle tremors. IV fluids and antiemetics.
<i>Amanita muscaria</i> ID by owner, a mushroomer	6/26/13 CT	Dog F 2	~0.5	Salivation, disorientation, vomit, drowsy. Fluid therapy, Cerenia, Famotide.
<i>Amanita muscaria</i> Photo ID by M Bishop	10/11/13 OH	Dogs ?,?	?	Dogs at vet were drooling, accelerated heart rate, GI upset. No other details.

<i>Amanita muscaria</i> ID by Michelle Seidl from vomitus from a 74 pound labrador	Fall 2013 WA	Dog	1-2	Vomiting, watery diarrhea, comatose at 3-4 hrs., coma lasted a few hours. Very large ingestion. Stomach pumped and dog recovered.
<i>Amanita muscaria</i> ID by Michelle Seidl from vomitus	Fall 2013 WA	Dog	?	Pug brought in vomiting after consuming a very large amount. Stomach pumped.
<i>Amanita muscaria</i> var. <i>alba</i> ID by Bruce Boyer from photos about 1 week after event. Since a white <i>Amanita</i> , dog treated for amatoxins and liver function monitored	11/28/13 DC	Dog	2-4	Dog presented drooling. Given high rate IV fluids, liver protectants, anti-nausea meds, metronidazole, diazepam, muscle relaxants,
<i>Amanita muscaria</i> or <i>pantherina</i> suspected; dog vomited copious mushrooms.	11/13/13 CO	Dog ?	?	Ativan to stop seizures, Valium (ill-advised since CNS depressant), still "out of it" 17 hours later.
<i>Amanita pantherina</i> ID by owner	11/5/13 OR	2 Dogs 13, 14	1-3	Diarrhea, salivation, disorientation, muscle spasms, vomit. One died, complicated by old age.
<i>Amanita pantherina</i> Photo ID by JF Ammirati	11/10/13 WA	Dog 7	2-3	Drooling and diarrhea after eating cap of 1 mushroom.
<i>Amanita pantherina</i> Photo ID of mushroom in vomit by MW Beug and T Volk. Vet had administered IV fluids only	11/22/13 WI	Dog M 0.5	2	Explosive diarrhea, salivation, dizzy, disorientation, vomit, drowsy, nausea, weak, shaking. Death at 7-8 hrs.
<i>Bolbitius vitellinus</i> Photo ID by MW Beug	6/2/13 MI	Dog M 0.3	?	Dog sick at vet, no details.
<i>Boletinus meruloides</i> Photo ID by Dean Abel	~8/1/13 IA	Dog F 1	?	Lethargic, not eating, vomit. Activated charcoal, Cerenia, Denamarin.
Similar to but not <i>Clitocybe irina</i> . Photo ID MW Beug	1/13/13 WA	Dog ?	?	Dog unwell and at vet; outcome unknown.
<i>Clitocybe</i> sp Photo ID by MW Beug. Two large caps eaten, recovered at 16 hours.	8/25/13 CO	Dog	6-7	Salivation, disoriented, muscle spasms, weak, paralysis of extremities. Tranquilizer, IV fluids.

<i>Galerina marginata</i> suspected; very small, almost black, old and from under snow.	10/18/13 CO	Dog ?	1	Observed eating lots of LBMs under pine tree; hyper-salivating, vomit and stools bloody. Death.
<i>Hygrocybe conica</i> Photo ID by D Winkler. Mushrooms were in vomit. Dog had been eating other mushrooms in yard for a week	11/19/13 WA	Dog ?	?	Drooling, vomited, eyes glassy, dog looking around as if all is unreal, temp and heart rate normal. Treated with IV fluids, Toxiban, etc.
<i>Inocybe sp</i> Photo ID by J Lindgren	1/2/13 WA	Dog ?	?	Classic muscarine poisoning symptoms per the vet.
<i>Inocybe sp</i> (probable) ID by owner from 1 small brown mushroom in vomit	8/3/13 AB	Dog M 0.5	0.25	Diarrhea, salivation, vomiting, intestinal cramps. Charcoal infusion, IV fluids.
<i>Inocybe sp</i> Photo ID by R. Spinosa	10/20/13 MN	Dog ?	?	Symptoms not specified; recovered after atropine.
<i>Inocybe fastigiata</i> ID R Vilgalys from vomit sample	11/3/13 NC	Dog M 4	1	Diarrhea, salivation, vomit, weak. Given CPR, died 4 hrs. after eating several.
<i>Inocybe sp</i> (red blushing) Photo ID by JF Ammirati	11/13/13 WA	Dog ?	12	Vomiting.
<i>Inocybe sp</i> Photo ID by Michelle Seidl	Fall 2013 WA	Dog	?	At vet, no details.
<i>Lactarius sp</i> and <i>Russula sp</i> Vomit photo ID by J Lindgren	10/28/13 WA	Dog ?	?	Dog at vet vomiting.
<i>Lactarius cf deliciosus</i> (old) Photo ID by MW Beug of a mushroom from yard, but what was actually eaten? Contact by husband from Afghanistan, no follow-up by wife.	10/28/13 ?	2 Dogs	?	#1 lethargic, not eating or drinking, vomited and urinated, extremely elevated liver tests (LFTs) . #2 drooling, zoning out, drinking, LFTs normal.
<i>Lepiota cf subincarnata</i> Small <i>Lepiota</i> fragments among various mushrooms from yard. ID by G Williams	10/13/13 BC	Dog ?	24	No symptoms for 24 hours, then very ill and died at vet a short time later of massive liver damage.
<i>Leratomyces ceres</i> Photo ID by D DeShazer	1/5/13 CA	Dog ?	?	Dog taken to vet, sick; no details.
<i>Macrocyttidia cucumis</i> Photo ID by Michelle Seidl	Fall 2013	Dog		No details.
<i>Morchella elata clade</i> Blog posting by Vet on pawnation	9/19/13 (posting date)	Dog ?	?	Owners collected large pile of morels, turned away. The dog ate them all and died.

<i>Russula cf nigricans</i> Photo ID by MW Beug of old specimens, many consumed.	9/26/13 ME	Dog F 0.25	?	Chills, diarrhea, salivation, dizzy, muscle spasms, vomit, weak, visual impairment.
<i>Russula sp</i> Photo ID by Michelle Seidl	Fall 2013	Dog	?	No details.
<i>Scleroderma cf cepa</i> Photo ID by J Lindgren	9/12/13 WA	Dog 9	?	Vomited several times.
<i>Suillus albivelatus</i> Photo ID by MW Beug	9/13/13 AB	Dog F 8	0.5	Diarrhea, salivation, disorientation, vomiting.
<i>Suillus luteus</i> Vomit photo ID by JF Ammirati	10/10/13 WA	Dog 0.2		Vomited up mushroom, drooling. Antiemetics, IV fluids, activated charcoal.
<i>Tapinella atrotomentosus</i> Photo ID by K and M Cochran.	9/13/13 MI	Dog 0.3	?	Puppy presented to vet with “kennel cough” and vomited the mushroom.
Mushroom poisoning first suspected 1 week after event. Mushroom caps had been observed bitten off in yard. Puffball image submitted.	6/27/13 TN	Dog 0.7	?	Lethargy, vomit, drank lots of water; later would not eat. Eventual dark reddish-brown diarrhea, seizure and death at day 3.
Mystery dog poisonings over 2 years all from mysterious source in large fenced back yard. Mainly indoor pets with some time in yard. No vomit found with mushrooms in it, no mushrooms found in dog’s stomachs at autopsy. Lots of mushrooms in yard, none with bite marks – all photos were of edible species (MW Beug and MH Shaw ID).	5/1/12 5/31/12 6/14/12 12/24/13 GA	4 Dogs 3 deaths no ages	?	#1: 2 dogs, Muscle convulsions, violent seizures, vomit. One not responsive to treatment and euthanized. #2: Same except with added apparent hallucinations, survived but diarrhea for 1 week then shortly after a visiting dog died with these symptoms, 1.5 year later, dog #2 sick same way again and died.
Mystery Death Photo provided was of <i>Peziza cf varia (repanda)</i> ID MW Beug	10/25/13 TX	Dog F 9	?	Disoriented, agitation and hyperactivity, rapid breath, no urination. Found dead following morning.