



**SPECIAL SUMMER
ISSUE**

AUGUST 1999

ROCKHOUNDER

A Most Deadly Virus

By Sam Richter

A young woman walked into hospital complaining of worsening flu symptoms: fever, chills, vomiting, diarrhea, and weak, aching muscles. Nine hours later, in spite of intensive care, she was dead from the Hantavirus Pulmonary Syndrome (HPS) virus.

There are at least 19 strains of Hantavirus worldwide. It is a common infection of small rodents: mice, rats, chipmunks and even bats. The strain specific to mice and found in all of North America is called HPS. It is the most deadly of all the Hantaviruses, and is carried by mice. The virus is shed in the saliva, urine and droppings. It survives well even when dried and has been around for centuries.

Inhaling of aerosols or dust containing the virus; touching a contaminated surface and then the eyes or nose; or direct entry through cuts or scrapes can result in infection.

Infection starts with flu-like symptoms and can quickly progress to heart and respiratory failure, with heart rate of 118-130 beats per minute, panting, weak pulse and fever to 103°F.

The cause of respiratory failure is leakage of plasma from the capillaries that transfer oxygen and carbon dioxide in the lungs. Flooding of lungs means less surface area to transfer oxygen and the blood oxygen goes down. Loss of blood volume means less blood to carry what little oxygen there is. The heart is overworked and the lungs are drowning in body fluid.

The main therapy is to get the blood oxygen level back to normal and to maintain adequate blood volume. Success gets heart rate and breathing back to normal and the patient may be out of hospital in 7- 10 days.

Death rate is from 50% to 75%; the median is 60%. Death may occur at any

time from the same day that symptoms first appear, to 6 weeks later - median is 4 days. Symptoms appear from 1 to 21 days after infection - median is 4 days. A milder strain of Hantavirus carried by rats is suspected of being a cause for some high blood pressure and kidney disease.

A nice lady was looking after her sick cat. It sneezed on her face. The cat survived; she didn't. Most cats and dogs can acquire immunity to HPS.

Hikers on different wilderness trails have come down with the virus. They noticed many mice in some areas but didn't stop or get off the trail at those places. Viruses are very tiny and can be carried on air currents. Many mice could mean many virus carriers. Avoid dusty cabins, floorless tents and mouse hangouts.

Assume every mouse could get you. Get them first! One pair in the fall can become 150 mice by spring. The virus spreads by contact of mother with babies. Humans are a dead-end for the virus. Permanently set traps and poison bait wherever mice can show up.

Products and procedures are available to allow being in a virus contaminated area and yet keep the risk of infection to near zero. Farm and safety-supply houses have the personal items required. The main item for keeping the virus out of lungs is the disposable "High Efficiency Particulate Air" (HEPA) dust mask. These trap a very high percentage of the dust to which viruses can adhere. Also available are disposable paper coveralls with hood, and gloves-latex or polyvinyl. Kitchen gloves are usable and can be disinfected for reuse. Goggles and rubber boots would have you covered.

Lysol is handy for washing down rubber boots, hands and the spot spraying of dead mice, droppings and traps.

Before removing a dead mouse, spot spray with Lysol. Always do what you can to raise as little dust as possible. Dust mask and gloves will do here. Use the "doggy doo" method: place a hand in a suitable plastic bag, pick up the mouse with the bag; use the other hand to pull the bag over the mouse and twist shut. Double bag and place in trash for disposal. Burning in a hot fire works well. Buried virus has been found to be viable after many years in

the ground. This could be where the "Curse of the Mummy" comes from.

Use the wet method of cleanup for floors and furniture, if applicable. A house plant sprayer works well to wet the area down. If there is adequate ventilation, a 10% mixture (9 parts water to 1 part bleach) could be used. Bleach is an effective, cheap disinfectant. Chlorine is the active ingredient and is very reactive. Under ideal conditions it will inactivate the weaker viruses in 5 minutes. Tough viruses need 35 minutes. Soak used gloves in a basin with 10% bleach for at least an hour.

Then rinse and hang up to dry. Chlorine is hard on the eyes, skin and lungs. Ventilation is key for minimum damage.

Bleach is good for wiping down dusty tables, etc. If there is poor ventilation, use Lysol: spray then wipe. Sweeping compounds do help keep dust down. Compressed air is a quick way of removing mouse nests from equipment, but raises a lot of dust. This has resulted in HPS infections. Techniques have been developed to allow working safely on contaminated equipment.

Vacuums are available with HEPA final filters. Normal filters are too porous and let dust fines and virus escape through and into the exhaust, spreading the virus. As few as 8 influenza viral particles has been shown to be enough to cause full flu infection.

No virus has ever found a way to get through physical barriers. HPS can result in a lot of misery, all efforts to avoid becoming infected are worthwhile.

[Makes me feel good, knowing I once trapped 13 deer mice in less than a week, in an oilfield accommodation trailer ... the mice were living in the forced-air heating ducts! - ed.]

Via APS Bulletin 03/97

Using Quotation Marks

by Joy Bourne

Quotation marks are probably the most misused punctuation characters in the English language. Especially since they often come next to a comma or an end punctuation mark and the question becomes "where to place what." The rules for correct usage may be found in any text on grammar. We all knew them once, but often memory dims when we're facing a newsletter deadline, and we don't always take time to look them up.

Following is quick summary of these rules, together with examples of their use in applying to single quotation marks as well. Perhaps this will be of help to our newsletter editors.

1. Use a comma to set off a direct quotation from words like he said.

- "You were going 80 miles an hour," the State Policeman said.
- According to the AFMS Code of Ethics, "I will leave all gates as found."
- "Come to the workshop session," he told her, "and I will teach you to wire-wrap."

2. If a quoted question or exclamation comes at the beginning of a sentence, use a question mark (?) or an exclamation point (!) to set it off, not a comma.

- "Do you want a gad pry or a crack hammer?" Bill asked. "Unbelievable!" Charlie shouted.

3. Commas and periods always go inside the quotation marks at the end of a quotation.

- "You can't move that alone," said the safety officer. The miner admitted, "unless we get more help out here, we'll never get this rock to the truck."

4. Question marks and exclamation points go inside the quotation

marks if the quotation itself is a question or exclamation.

- The reporter wrote, "The Jets Won!" Tom responded, "Are you glad?"

Are you glad is a question. Therefore, the question mark is part of the quotation, and it goes inside the quotation marks. Similarly for the exclamation point.

5. Question marks and exclamation points go outside the quotation marks if the sentence as a whole is a question or exclamation.

- Did she say, "I am going fossiling"?

The quotation "I am going fossiling" is a statement. The sentence as a whole is a question. Thus the question mark goes outside the quotation marks.

6. Single marks surround a quotation within a quotation.

- "Then," he continued, "Bill shouted, 'I found a pocket!'"

7. When two or more paragraphs are quoted, place quotation marks at the beginning of each paragraph and at the end of the last paragraph. The closing mark tells the reader that he has reached the end of the quotation.

Sources:

- Lein, Andrea and Robert Chodos, **Write All About It**, New Readers Press, Syracuse, NY 1996.
- Wooley, Edwin C., et al., **Handbook of Writing & Speaking**, D. C. Heath and Co., New York 1944

Sent in by Julie Salisbury, SCRIBE Treasurer, SCRIBE April, May, June 1999

Indian Springs Shaman's Cave

By Bill (Shortfuse) Mann

From Baker South on Kelbaker Road 13.0 miles, turn left and at .2 miles take the left fork for an additional 3.3 miles. Springs and petroglyphs are along wash system for approximately ½ miles. Shaman's Cave is on the left about two hundred yards from the end of the road. Look up and follow an ancient trail. Leann Benton and I built cairns at the start of the trail. Note mine ruins to the left going in.

N 35 degrees 13 feet 908
W 115 degrees 49 feet 138
Alt. 2960 plus or minus 160 feet
4 Wheel drive

Indian Springs is actually a series of springs and seeps along a wash system for approximately one half mile. You reach the end of the road and a small, dry waterfall. There is a large turn around area to park or camp in. Remember, Shortfuse says to never camp in the bottom of a dry wash because a flash flood could prove to be disastrous. After you hike over the small waterfall, look up to your left and you will see an old trail leading up the side of the canyon to a large rock shelter which is the Shaman's Cave.

Leann Benton and I built a large cairn at the start of this trail to help you find the Shaman's Cave. Beautiful barrel cactus are growing out of the solid rock. My anonymous native American tracker and guide friend told me that as local legend has it this is where the Shaman came to perform healing rites and that squaws and children were not allowed in this sacred place. There are some beautiful petroglyphs here including a nice one of a snake. The large wash system in this area is called Indian Creek. As you hike up this beautiful wash, look on both sides and up some of the tributaries and you will be rewarded with many petroglyphs. Some of these panels are outstanding.

The scenery is spectacular especially in the spring when the flowers and cactus are blooming. This is also big horn sheep and wild burro country. You can see where they and coyotes have dug numerous holes in the bottom of the wash to get water. On your way into Indian Springs, about halfway there, look to your left about 150 yards and you will see mine ruins including the walls of a delightful stone cabin. Remember, take nothing but pictures, leave nothing but footprints! Enjoy!

Via Baker Valley News June 18, 1999

Desert Field Trip Safety Tips

1. Carry extra provisions in case of a breakdown or mishap. These include: water (one gallon per person per day), canteen, food (for the whole trip plus emergencies), jerky, juices (six-pack), gasoline, oil, coolant, shovel, tarp (8' x 10'), tow cable, axe, blankets, warm clothing, compass, map, FIRST AID KIT, identification, etc. Make sure to bring and wear a brimmed hat!
2. Try to travel in pairs - if traveling alone, let your friends or the local ranger know your travel plans and time of expected return.
3. Install a CB radio (cell phone?), if possible. It's great for communication between cars while traveling, and you can always call for help in the event of a breakdown.
4. Make sure your vehicle is in good condition, or stay home. Check water, oil, fuel, hoses, tires, and battery, etc.
5. Plan your desert rockhound trips during the cooler months of the year.
6. Examine planned camping sites for signs of water flow (streambeds, etc.). Flash floods can occur miles downstream from rainstorms, so camp on higher ground.
7. If you plan a fire in the evening, build your fire pit with care and carry in your own wood (Collecting wood is not allowed in the desert now.). Be sure the fire is completely out before going to bed or driving out of the area.
8. Burn your papers and garbage, and/or carry out your garbage and cans. Don't bury the garbage as desert animals dig it up and scatter it around. Plan on leaving your campsite cleaner than when you found it.
9. Inspect clothing and shoes for insects (scorpions) before putting them on in the morning. Light-colored, long-sleeve shirts and long pants and sunglasses recommended. For hiking in the heat, a lightweight jacket is recommended to help retain moisture.
10. Always wear high-topped boots and have gloves and eye guards with you.
11. Obey the rules and regulations posted for the particular part of the desert that you are visiting. All plant and animal life is now protected, so leave the desert living when you leave it to travel home.

CFMS Field Trip Manual, 1999, via Chips 05/99

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FREE PARKING AND ADMISSION

Note: I have included copies of our SHOW FLYERS. Please display at your next meeting. Thanks very much!

JValle

Do You Own a Honda or Toyota?

Look Out!

Wall Street Journal 1/13/99

Contributed by Daymond Speece

Last year was a record for car clouting, that is, bears bashing and clawing their way into vehicles, preferably Hondas, or secondly, Toyotas in Yosemite National Park. Vans are becoming another favorite. Rangers are trying to persuade campers to keep their food in park-provided bear safes at campgrounds.

However, even a Honda, Toyota or van owner who keeps food in the bear safes isn't free from attacks. The bears recognize the vehicles as cookie jars and attack anyway. Park officials are trying to figure out how to retrain the bears, or to keep them out of public areas.

Via Breccia 03/99

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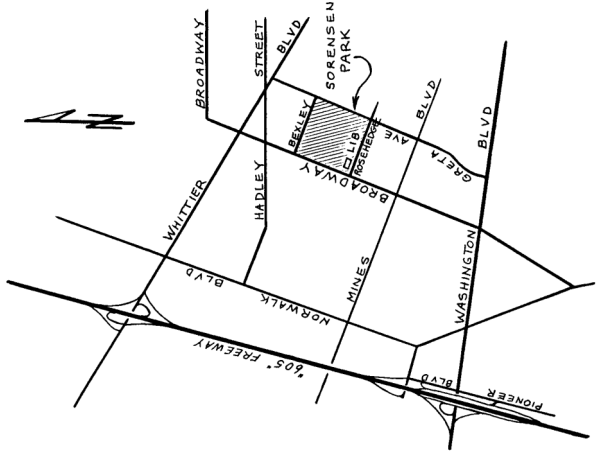
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Meeting Date: September 23, 1999 at 7:30 PM
Location: Sorensen Park (See Map)