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Potpourri

SUDDEN infant death syndrome (SIDS) is a condition for which many different etiologies have been proposed. Most likely, SIDS will be shown to have multiple causes. One hypothesis is that infectious diseases initiate or predispose infants to SIDS. While studying viral infections in children who die from SIDS, the Milwaukee Medical Examiner and the Milwaukee Health Department found parechovirus-3 (HPeV-3) in the lungs of two cases. Both children had colds prior to dying of SIDS. This was the first recognition of this virus in the United States as it was only recently identified in Japan (J Gen Virol 85:391, 2004). Little is known about this virus other than serological surveys indicate that in infancy ~15% of babies have antibodies to HPeV-3 and by the time adults reach 30 y of age ~80% have antibodies.

The parechovirus group was first described in 1994 when it was demonstrated that echovirus 22 really was a distinct agent from other echoviruses (J Virol 68:8262, 1994). Shortly thereafter HPeV-2 (formerly echovirus 23) was recognized (Gen Virol 79:2641, 1998). And, most recently HPeV-3 has been described. These agents are RNA viruses of the picornavirus group. There is also an agent known as Ljungan virus from rodents that appears to be a member of the parechovirus group.

According to present data, HPeV-1 causes mainly gastrointestinal and respiratory infections, however, severe disease conditions, such as myocarditis and encephalitis, also have been reported (Ann Med 33:466, 2001). HPeV-2 infections appear to be rare, and it is not known whether the Ljungan virus can infect humans.

EARLIER this year, an unusual mode of transmission of rabies virus occurred and 4 people died as a result (MMWR 53:586, 2004). The virus was transmitted via

organ transplants from an unrecognized human case of rabies. An Arkansas man with severe mental changes and fever died in a Texas hospital. Neurologic imaging indicated findings consistent with a subarachnoid hemorrhage, which expanded rapidly in the 48 h following admission, leading to cerebral herniation and death. The family consented to organ donation of the liver and kidneys. The 3 recipients of these organs died of rabies which then led to the identification of the donor as a rabies case. Subsequently, another transplant recipient died of rabies and this person received a segment of the index case's iliac artery. That piece of artery was used when a liver (from a different donor who was later shown not to have rabies) was transplanted into the 4th individual.

Laboratory characterization of the viruses from these cases indicated that the rabies agent was of bat origin. The donor had no known history of a bat bite.

This incident is not the first time rabies transmission has occurred via transplantation. Rabies was reported in 8 corneal transplant recipients in 5 different countries (MMWR 44:RR-1, 1999). In those cases, the donors had died from unspecified neurologic diseases.

THIS summer, public health authorities in Wisconsin discovered that baby turtles were being sold illegally and that human cases of salmonellosis were occurring as a result of contact with these animals. One of the cases was a 4 y old girl from Kansas. In 1975, the Food & Drug Administration banned the sale of turtles with a carapace length of <4 inches due to the large number of *Salmonella* infections in children who kept these animals as pets.

The ban on the sale of small turtles has been estimated

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to have prevented 100,000 cases of salmonellosis among children each year. However, reptiles remain popular pets in the US with an estimated 1.7 million households owning at least a single reptile (JAVMA 221:1572, 2002). The increase in pet reptile popularity has been paralleled by an increase in the number of reptile-associated salmonella serotypes isolated from humans (MMWR 52:1206, 2003).

In Kansas City, MO, retailers selling reptiles as pets are required to prominently display posters by the Kansas City Health Department warning of the salmonellosis risks posed by reptiles and to provide purchasers of reptiles with a Health Department approved brochure addressing this issue.

Physicians should inquire about reptiles in the home when they diagnose a case of human salmonellosis.

IMPROVEMENTS in laboratory technology in recent years have allowed genetic fingerprinting of various bacterial agents and the ability to associate isolates with outbreaks of human illness. A problem arises, however, when the isolates come from widely separated geographic areas and no common source of infection can be identified. This past summer, 46 cases of *Salmonella* serotype 4,[5],12:i- were recovered from primarily children 1-14 y of age and living in 9 states across the country. All 46 isolates had the same pulsed field gel electrophoretic (PFGE) type. Three of the cases were Missouri residents. Such a diffuse outbreak suggests a widely distributed product and low levels of bacterial contamination. PulseNet, a Centers for Disease Control and Prevention computerized network of state public health laboratories, made the identification of these cases possible. In Missouri, hospital and private laboratories are required by regulation to submit isolates of a variety of bacterial agents, including *Salmonella*, to the state public health laboratory for PFGE typing.

HOUSE cats can contract H5N1 influenza virus infection and transmit the virus to other cats (Science 305:1325, 2004). Cats that had the virus introduced into their airways, that ate H5N1 chickens, or that were exposed to infected cats, all developed clinical illness

(fever, lethargy, and labored breathing) with severe lung disease; 12% of the cats died.

The implications of the findings are that during H5N1 virus outbreaks, domestic cats are at risk of disease or death from H5N1 infection either from feeding upon infected birds or exposure to infected cats. Also, cats could potentially spread the disease between poultry farms, thereby increasing the risk to humans from infected poultry. And, cats may form an opportunity for this avian virus to adapt to mammals, thereby increasing the risk of a human influenza pandemic.

PUBLIC health officials often are faced with dilemmas when it comes to issuing warnings to the populace that they serve. A basic question that must be answered is whether the warning will allow the public to take actions to protect themselves from the threat or whether it will simply cause undue concern but provide no guidance. This was the situation that faced the British Columbia Provincial Health Officer last March. A serial killer was identified and this individual ran a pork product plant. The concern was whether human remains may have been blended into the frozen pork products sold by the killer's company. The decision was to issue a warning although later no contaminated product was identified. Critics of this decision, of course, were vocal, but *The Vancouver Sun* story took the position that public health officers are not supposed to keep their mouths shut, and that in democratic nations, it is a job that gives public health experts a high profile pulpit – even if some bureaucrats and politicians would prefer that the public not fret.

LASSA fever virus killed a New Jersey man who returned in August from a trip to Liberia. He was admitted to the hospital on the 24th and his condition deteriorated rapidly. He died of massive kidney and liver failure on the 28th.

Each year in West Africa, between 100,000 and 300,000 persons develop Lassa fever, with about 5,000 deaths. Most people get mild symptoms or none at all. This virus had not been seen in the US since 1989. Lassa fever virus is spread through rat droppings or

urine and can be passed person-to-person through bodily fluids, but not through casual contact.

NEW research suggests that some hepatitis E infections in humans may be of zoonotic origin, with pigs the most likely source (Emerg Infect Dis 10:953, 2004). In the US, hepatitis E infection, a normally self-limiting disease causing fever and jaundice, has largely been associated with foreign travel. Epidemics have been reported in Asia, Africa and Mexico, the virus spreading via the fecal-oral route and often via water.

In Japan, hepatitis E virus was found in 1.9% of raw packaged pork livers, and human illnesses were epidemiologically linked to consumption of raw pork liver and consumption of raw deer meat and raw wild boar liver (J Gen Virol 84:2351, 2003; J Infect Dis 188:944, 2003; Lancet 362:371, 2003).

Pigs carrying hepatitis E virus remain symptom-free, making it difficult to know which animals are infected. The virus is ubiquitous in US swine herds with infection occurring in pigs at 1-3 months of age. Up to 26% of persons in the US have anti-hepatitis E antibodies, however there is no estimate of the number of clinical cases since laboratory testing for this agent is almost non-existent in this country. Serologic surveys of animals have found antibodies in a number of species and have demonstrated the virus is prevalent in US rodents. However, the virus has not been recovered from rodents making comparisons of the rodent virus to that of pigs or humans impossible.

AS many as 195,000 people a year could be dying in US hospitals because of easily prevented medical errors (Health Grades, Patient Safety in American Hospitals, July 2004, www.healthgrades.com). This was the first study to look at the mortality and economic impact of medical errors and injuries that occurred during Medicare hospital admissions nationwide from 2000 to 2002. More than 37 million patient records were reviewed. The estimated number of deaths is twice that published previously (JAMA 290:1868, 2003). The Health Grades study findings, if extrapolated to the entire US, would mean that an extra \$19 billion was

spent and more than 575,000 preventable deaths occurred over the three year period.

DATA from South Africa show that a 9-valent *Streptococcus pneumoniae* vaccine prevents 31% of pneumonias associated with any of 7 respiratory viruses (Nat Med 10:811, 2004). These findings suggest that the pneumococcus agent has a major role in the development of pneumonia associated with these viruses and that viruses contribute to the pathogenesis of bacterial pneumonia.

PRAYER is a common practice in the US, yet little is known about the prevalence and patterns of prayer for health conditions. A recent study found an estimated $\frac{1}{3}$ of adults used prayer for health concerns (Arch Intern Med 164:858, 2004). Most respondents did not discuss prayer with their physicians. Prayer was used frequently for common medical conditions, and users reported high levels of perceived helpfulness.

CAMBODIA has become the first country in the world to protect school aged children against intestinal parasites and reach the World Health Organization's (WHO) anti-parasite goal. This achievement comes 6 years ahead of schedule. Five years ago, >70% of Cambodian children were infected with intestinal worms. In 2001, WHO set a target of covering at least 75% of school aged children with regular treatment as the global goal for parasite control for the Yr 2010.

Intestinal worm infections affect at least 2 billion people worldwide and are a significant public health threat in regions where sanitation and hygiene levels are inadequate. Heavy infection can impede intellectual and physical development, and if left untreated, leads to irreversible organ damage. Infected children can weigh as much as 4.4 lbs less than healthy children and have a much higher chance of becoming anemic. The Cambodian anti-parasite campaign provides treatment twice a year to school aged children.

PNEUMONOCOINIOSES are caused by inhalation and deposition of mineral dusts in the lungs, resulting in pulmonary fibrosis and other parenchymal changes. Many persons with early pneumoconiosis are asymptomatic, but advanced disease is often accompanied by disability and premature death. Known pneumoconioses include coal worker's pneumoconiosis, silicosis, asbestosis, mixed dust pneumoconiosis, graphitosis, and talcosis. No effective treatment exists for these diseases.

other symptoms may persist much longer. For example, fatigue, headache, muscle weakness, and difficulty concentrating are all common symptoms that last for about 36, 10, 28, and 14 days respectively. Nearly, $\frac{2}{3}$ of patients report symptoms 30 days after becoming infected. About 80% of patients miss around 10 days of work or school time.

CDC reports that death rates for coal worker's pneumoconiosis have declined 36% in recent years, while death rates for silicosis and unspecified/other pneumoconiosis declined 70% (MMWR 53:627, 2004). However, death rates for asbestosis increased 400%,

WEST NILE fever is not simply a 3-6 day disease with limited symptoms, but rather a severe illness that can incapacitate people for month or longer (Ann Intern Med 141:360, 2004). The typical time needed for patients to get back to a point considered normal is 60 days and about $\frac{1}{3}$ of patients require hospitalization. Although the duration of fever typically is just 5 days,

RESTAURANTS in Kansas City that continuously demonstrate excellent compliance with the City's Food Code and other public health standards are eligible to receive the Health Department's new Quality Award. The award is valid for one year and is an immediate indicator to customers that the restaurant operates with the highest public health standards. The Health Department can withdraw it at any time when, or if, the restaurant fails to maintain the standards of excellence. In September, 168 of the 3,823 permitted food establishments in the City were issued the Quality Award (complete listing at www.kcmo.org/health). The Quality Awards will be issued each September, which is National Food Safety Month.



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