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Ramadan and the Muslim Patient

RAMADAN is the 9th month of the Islamic lunar calendar and this year it began on the 15th of October. Muslims believe that during the month of Ramadan, Allah revealed the first verses of the Qur'an, the holy book of Islam.

For more than a billion Muslims around the world, including some 8 million in North America, Ramadan is a month of blessing marked by prayer, fasting, and charity. However, there is a concern that Muslims who are on medication and who devoutly follow Ramadan may be causing health problems for themselves (Br Med J 329:778, 2004).

Muslims practice *sawm*, or fasting, for the entire month of Ramadan. This means that they are required to refrain from taking any food, beverages, or oral drugs, as well as from sexual intercourse, from dawn (1 hour & 20 minutes before sunrise) to sunset. Fasting is one of the Five Pillars (duties) of Islam. As with other Islamic duties, all able Muslims take part in *sawm* from about age twelve. People who are sick or traveling and women who are pregnant or breast feeding, however, are relieved of this obligation.

Since the Islamic calendar is lunar it is about 11 days shorter than the solar calendar used elsewhere, this means that Ramadan can occur in any of the four seasons, and the hours spent fasting vary accordingly from 11 to 15 hours a day. Rhythms of life and habits during this fasting period differ from one country to another. People who are on medication are relieved of this obligation and,

in this country, usually pay \$8.00 for each day to help the needy.

The fasting period can interfere with adherence to therapy for chronic and infectious diseases as patients may either stop or severely alter the dosing schedule without discussing alternative approaches with their physician. This behavior could alter the effectiveness and safety of drugs, especially those with a narrow therapeutic index.

Patients with chronic diseases often insist on fasting even though they are permitted not to by Islamic rules. And, patients with acute diseases would similarly be allowed to stop fasting and make up for it after Ramadan. Further, there are alternative routes of medication administration that have been generally accepted by the Muslim community that do not conflict with the requirement of *sawm*. These include eye and ear drops, all substances absorbed through the skin, injections with the exception of intravenous feeding, oxygen and anesthetic gases, mouthwash, gargle or oral spray provided it is not swallowed, nose drops and sprays, anal injections, and vaginal suppositories and washes, with some restrictions to these rules.

As the Muslim community in Kansas City continues to grow, physicians must recognize that religious practice in association with Ramadan may interfere with compliance to various therapeutic regimens and must work with the patients, when feasible, to devise accommodations to the treatment schedule or route of administration.

Whose Head Louse is this?

HEAD LICE, are unwelcome ectoparasites in current society. And, because they do not transmit any known diseases to humans (as opposed to body lice), they are

generally considered more of a nuisance than a health threat. Yet each year, thousands of children are excluded from day care or school because of head lice, millions of

Community & Hospital Letter

dollars are spent on pediculicides to treat these children, and countless hours are spent washing clothing and bedding, combing nits out of the hair, etc, in an effort to rid households of head lice. Despite all this concern, there is still considerable disagreement on various aspects of head louse treatment and no-nit policies for schools and day care centers (Commun Dis Rep CDR Wkly 8:405, 1998; Pediatrics 107:1011, 2001; Pediatr Infect Dis J 19:689, 2000).

Concerns over the safety of use of insecticides on the scalps of children have led to a variety of recommendations for alternative treatments for head lice, including the use of mayonnaise, vaseline and other products to smother the head lice. Most of these alternative methods, however, simply are ineffective (www.headlice.org). A new alternative approach has been described in the journal Pediatrics (114:e275, 2004), but is not readily available at this time.

Until recently, it was presumed because head lice (*Pediculus humanus capitis*) and body lice (*P humanus corporis*) are very closely related, that clothing and bed-

ding could facilitate the transmission of the head lice between individuals. However, genetic studies of lice have demonstrated that head lice and body lice are two distinct groups and that when transferring from one person to another they go from head to head or body to body, but never between the body and the head (J Med Entomol 39:662, 2002). Consequently, parents should concentrate on the heads of children with head lice.

Genetic studies also have demonstrated there are two distinct genetic lineages of *P humanus* and these lineages predate modern *Homo sapiens* by nearly 1.2 million years (PLOS Biology 2:e340, 2004). One lineage is comprised of head and body lice and the other only of head lice. The implication of these findings are that one lineage continued to evolve with the line of hominids that led to modern *Homo sapiens* while the other evolved with the now extinct species, *H erectus*. Further, the data suggests that at sometime physical contact in the form of fighting, swapping clothes, or interbreeding between the two hominids had to occur for the *H erectus* lineage to transfer back to *H sapiens*.

Is Kansas City a Drunken Town?

RECENTLY, *Men's Health* magazine ranked Kansas City as the 5th worst city (out of 101 cities) for drunkenness. Denver was the worst, St Louis was 34th, and Wichita was 82nd. These ratings were developed using drunken driving arrest rates, alcohol-related traffic deaths, and mortality rates for 6 categories of alcohol-related liver disease.

Is Kansas City truly an inebriated community? The *Community Health Assessment 2004* (www.kcmo.org/health) reported that alcoholism was the 9th leading cause of hospitalization in Kansas City during 2001 and that the age-adjusted death rate due to alcohol was 3 times the goal set in the national Year 2010 objectives.

Based on Behavioral Risk Factor Surveillance System (BRFSS) data for 2002 (MMWR 53:SS-5, 2004), 6.1% of Missourians and 5.2% of Kansans were heavy drinkers. In the bistate Kansas City metropolitan area 5.5% of residents were heavy drinkers, compared to 7.9% of residents in the bistate St Louis metropolitan area. Residents of

Jackson Co, MO, and Johnson Co, KS, had heavy drinking rates of 6.5% and 6.3%, respectively, while for St Louis County, MO, the rate was 9.1%. Nationally, about 5% of adults are classified as heavy drinkers (Nat Ctr Health Stat, Vital Health Stat 10(219), 2004).

One aspect of drinking behaviors that has received a great deal of attention is binge drinking, defined in most surveys as ≥ 5 standard drinks at one occasion. Earlier this year, the US National Institute on Alcohol Abuse and Alcoholism (NIAAA) developed a formal definition of binge drinking. A "binge" is a pattern of drinking that brings blood alcohol concentration to 0.08% or above. Though individual responses to alcohol vary enormously, that amount of alcohol would make most people feel noticeably drunk. To achieve this level, the NIAAA says that a "typical male" would have to drink ≥ 5 drinks in two hours, while a "typical" female would get there with ≥ 4 drinks. A standard drink, for example, would be a small glass of wine, a bottle of beer, or a glass of vodka.

Binge drinking is different from other drinking patterns and is distinct from a “bender” which, according to NIAAA, involves 2 or more days of sustained heavy drinking. Nor is it an addiction. Binge drinking is basically fast, excessive boozing. It is a very goal oriented ritual where the aim is simply to get drunk.

National surveys suggest that Midwesterners binge drink more than persons in other regions of the country (Am J Public Health 94:663, 2004). In a comparison of metropolitan areas, Kansas City MO-KS had a binge drinking prevalence rate of 15.6%, while the median nationwide was 14.5%. BRFSS data for 2002 showed the metropolitan area with a binge drinking rate of 17% compared to 21.3% for the St Louis MO-IL metropolitan area. At the county level, Jackson County’s rate was 16.0%, compared to 19.4% for Johnson County KS and 19.9% for St Louis County. Statewide, Missouri had rate of 17.2% while the rate for Kansas was 15.8%. According to the Centers for Disease Control and Prevention, in 2001, the number of binge drinking episodes per Missourian was between 7.9 and 12.3. This level of binge drinking placed Missouri among the highest states for this behavior.

The PULSE health assessment of the lesbian, gay, bisexual, and transgendered community in the Kansas City MO-KS metropolitan area found a binge drinking prevalence of 12.3%, ranging from 7.8% for wine consumption

to 17.2% for beer.

Binge drinking and other alcohol misuse is a major social and health issue for colleges and implementation of programs to reduce drinking overall have been ineffective (Am J Prev Med 27:187, 2004). According to a report released in September by the Pacific Institute for Research and Evaluation (www.pire.org), college drinkers drink more, and more often, than people not in college, with about 10% of drinking episodes among men involving 12 or more drinks. The heaviest drinking occurs among freshman males, and at the beginning of each academic year. By senior year, drinking appears to moderate. So far this academic year, 4 college students have died as a result of binge drinking (Kansas City Star 10/23/04:1A).

Here are a couple of interesting tidbits about drinking. Researchers at the University of Kentucky found men’s loss of inhibition was 3 times greater than women’s with the same blood alcohol levels (Addiction 99:1237, 2004). And, an English study of middle aged civil servants found that persons who consumed between 1 and 30 alcoholic beverages per week performed better on cognitive function tests than those who did not drink (Am J Epidemiol 160:240, 2004). This positive effect increased with greater consumption and was stronger for women than men.

Potpourri

HAMSTERS sold by a pet distributor in Manitoba were infected with type B tularemia according to the Public Health Agency of Canada (ProMED 10/7/04). Authorities were asking Canadians, in 5 provinces, who purchased regular or pigmy hamsters in the prior 3 months to contact their health care provider if either they or their hamster(s) experienced illness. Type B tularemia is a rare and usually mild disease in human.

The causative agent of tularemia, *Francisella tularensis*, can be divided into 2 clinically significant subspecies, *F tularensis tularensis* (type A or subspecies *nearctica*) and *F tularensis holartica* (type B or subspecies *palaeartica*). Other much less clinically relevant subspecies also have been described.

Type A tularemia is the most prominent type in North America, primarily endemic in rabbits. The infectious dose for humans to cause moderately severe to fatal disease is as few as 50 bacilli. In contrast, type B tularemia is found in Europe and Asia, but also in North America. The reservoirs include various species rodents including voles, muskrats and beavers. An infectious dose of 12,000 bacilli is much more likely to produce only mild, self-limited disease in humans.

VIRTUALLY all homes in the US contain detectable levels of dog and cat allergens, according to study sponsored by the National Institute of Environmental Health Sciences (Intern Med News 37(9):33, 2004). Dog and cat allergens

were ubiquitous even in those households with no indoor pets, and in about half of those homes the levels were high enough to produce an allergic sensitization.

Of homes without an indoor dog, 50% had an average dog allergen level above 1.12 µg/g, and of the homes without an indoor cat, 50% had an average cat allergen level above 1.15 µg/g. These levels represent the thresholds above which allergic sensitization in people have been demonstrated. Allergen levels were much higher in homes with a dog or a cat, with average levels at or above 100 µg/g.

tigers out of 441 have died or been euthanized because of this virus. This translates into a crude attack rate of 18.8% with a crude case-fatality rate of 55% (tigers which died and were not euthanized).

There is little evidence for tiger-to-tiger transmission of the virus and none of the 57 animal care takers have become ill. It is hypothesized that the H5N1 virus was introduced through the feeding of dead, whole chickens and not from fresh chicken carcasses from a local slaughterhouse.

The living room sofa had the highest average levels of both allergens. This is probably a reflection of where pets prefer to spend their time and the site most likely to come in contact with clothing worn outside the home.

LAST month's *Community & Hospital Letter* described the effects upon and transmission between house cats of H5N1 avian influenza virus. Now, from Thailand, come reports of this virus causing illness and deaths among Bengal tigers at a tiger zoo. Beginning in early October, H5N1 virus began making 8 month to 2 year old tigers ill. As of this writing, 83

Genetic analyses of the virus from the tigers are being conducted to determine whether the H5N1 virus is mutating from that found in birds.

A WISCONSIN teenager contracted rabies following a bat bite on the hand during a church service on the 12th of September. The bat was not tested and post-exposure rabies prophylaxis was not administered. On the 13th of October, the teenager became symptomatic and the diagnosis of rabies was confirmed on the 19th. As of the 21st of October, the teenager remained hospitalized.



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