Playing chicken with group A streptococcal infection

The case for chickenpox vaccination has been boosted by a recent study showing that children who had contracted chickenpox had a dramatically increased risk of acquiring group A streptococcal (GAS) infection (Pediatrics 2000; 105(5):e60).

The project surveyed invasive GAS infection in Ontario over 5 years, identifying 205 children with the infection. Of the children who had GAS, 15% had had chickenpox in the previous month, representing a 58-fold increased risk of acquiring the infection. In addition, necrotizing fasciitis developed in 4% of the children. The researchers speculate that the GAS bacteria may enter the body when the skin barrier is broken down by chickenpox lesions. Alternatively, the varicella-zoster viral infection may create a predisposing immune aberration.

“The most compelling evidence for chickenpox vaccination is that the economic burden is so high,” says Dr. Dele Davies, associate professor of microbiology, infectious diseases and pediatrics at the University of Calgary, and one of the lead researchers. There are more than 300,000 cases in Canada each year, costing millions of dollars. The cost of hospitalizing a patient is more than $7000. “It is not always as mild as people think,” explains Davies.

The Canadian Paediatric Society recommends universal vaccination for children at 1 year of age. Varicella vaccine has been available in Canada since 1998; however, at $60 per dose it is the most expensive vaccine available. Another limitation is the need to store it at a temperature of −15°C degrees, unlike most vaccines, which can be kept refrigerated at 2°C to 8°C. (A new chickenpox vaccine that does not require freezing has recently been developed). “Those two things have prevented a wide uptake of the vaccine right away,” says Davies. Varicella vaccination is funded by the provincial health plan only in Prince Edward Island, although some other provinces, such as Alberta and Ontario, are planning to introduce funded vaccination. In Alberta, it is available at private clinics.

Davies hopes that his work will help speed up the move to universal vaccination. “Chickenpox is the last preventable childhood illness in Canada, and the most common cause of preventable death. Why should we be content with that situation?” — Heather Kent, Vancouver

Newfoundland and Labrador: it’s all in the genes

Newfoundland and Labrador is noted for its stark beauty, friendly folk and small gene pool, with the latter making the province an ideal place for genetic research. Now the provincial government is moving to regulate that type of research, likely by forming a provincial research ethics board.

“It is our plan to put in place policies and standards around genetic research later this year,” says Health and Community Services Minister Roger Grimes. “There has … been some research by people who studied the DNA of families without following up with them as to the outcome. It is important that the province move forward with policies and standards regarding all genetic research in Newfoundland and Labrador.”

Although Health Canada’s Food and Drug Act regulates the establishment and operation of clinical trials, it does not have the authority to regulate genetic studies. Newfoundland and Labrador commissioned Dr. Verna Skanes, former assistant dean of research and graduate studies at Memorial University, to prepare a report on issues arising from the commercialization of this research. She concluded that an ethics board with representatives from the legal community, medical profession and public is necessary. “It seems obvious that the province needs a clearly articulated policy for research ethics review of all human research projects,” she says. In preparation for such a policy, the health minister says the department “will review the experiences of countries like Iceland.”

The residents of Newfoundland and Labrador descended from approximately 20,000 people, who originally settled in the province in the 1800s. The limited immigration since then makes it easier for medical researchers to trace genetic diseases. — Donalee Moulton, Halifax

Rate of HIV infection on rise among Ontario’s gay men

After years of steady decline, the rate of HIV infection among gay men in Ontario is on the rise. In a presentation during the 13th International AIDS Conference in South Africa last month, University of Toronto researcher Dr. Liviana Calzavara reported that the rate of HIV diagnosis among the province’s gay men has risen from 0.87 per 100 men tested in 1996 to 2.07 in 1999. In an interview published on the U of T Web site, Calzavara said the increase may be due to “safer-sex fatigue. These people have been practising safer sex for over a decade and every once in a while they’re going to slip.” Most of the increase took place among gay men in Toronto and Ottawa; infection rates among heterosexuals and women have remained stable.