about the disease and encourage them to be vaccinated. University representatives have said that because many universities don't have the money to pay for vaccination, it is unlikely they will mandate such vaccinations prior to admission.

The American Academy of Pediatrics and the U.S. Public Health Service's Advisory Committee on Immunization Practices currently recommend hepatitis B immunization for all infants and older children, adolescents, and adults at increased risk of infection. Both groups also encourage routine immunization of all adolescents.

Latex Allergies Reported by OR Nurses

Latex glove sensitivities were reported by 369 (21%) of the 1,738 operating room (OR) nurses recently surveyed at an Association of Operating Room Nurses (AORN) annual convention. The findings of this questionnaire survey were reported by Dr. Stephanie Zaza, medical epidemiologist at CDC, at this year's Epidemic Intelligence Service (EIS) conference in Atlanta, Georgia. Those nurses reporting reactions to latex were more likely than those without such reactions to have a history of other allergies, asthma, and chronic illnesses. The reported symptoms included itching (86%), rash (54%), dermatitis (51%), hives (13%), facial swelling (4%), and wheezing (1%). Symptoms were reported most frequently after contact with latex gloves, sterile or nonsterile, powdered or unpowdered. These findings add to the mounting evidence that potentially severe latex glove allergies appear to be increasing.

Although many of the reactions appeared to be related to individual risk factors for allergies, additional studies are needed to determine whether specific types of gloves could be particularly allergenic.

New Technique to Detect Small Amounts of HIV in Blood Cells

It is now possible to detect HIV DNA or RNA in a small number of blood cells using a highly sensitive new assay technique developed by Dr. Bruce Patterson and colleagues at Northwestern University Medical School in Chicago. The technique involves the use of polymerase chain reaction (PCR) to amplify HIV nucleic acids within cells, tagging them with a fluorescent probe and analyze them using flow cytometry, This new assay allows researchers to quantify the number of HIV-infected cells in peripheral blood and to isolate them for further characterization. This new assay is able to identify HIV genetic material in as few as one in 10,000 blood cells compared with previous assays that could detect HIV in only one in ten blood cells.

FROM: Patterson BK et al. *Science* 1993;260:976-979.

PCR Test Kit for Detection of Chlamydia Awaits FDA Clearance

The use of polymerase chain reaction (PCR), a new tool in molecular biology, may soon be adding the detection of chlamydia to its list of applications. Roche Molecular Systems, Inc., a division of Hoffmann-La Roche, has submitted a PCR test kit for detection of chlamydia to the FDA and is awaiting clearance. Hoffmann-La Roche recently acquired full rights to PCR technology from Cetus Corp. and now owns all technical, patent, and manufacturing rights to all known and future uses for PCR. PCR testing is currently available for HIV, HTLV-I and HTLV-II, *Borrelia burgdorferi* (Lyme disease), mycobacteria, and paternity testing through Roche Biomedical Laboratories. PCR research technology also has yielded promising results in amplifying the genetic sequences responsible for cystic fibrosis and Duchenne's muscular dystrophy.

E coli O157:H7 Transmission Reported in Minnesota Daycare Centers

Although only *two* reports of *Escherichia coli* O157:H7 outbreaks in child daycare centers had been published previously, the Minnesota Department of Health identified 68 cases of *E coli* O157:H7, including 29 cases at nine daycare centers with evidence of person-to-person transmission in all nine daycare centers. Cases of *E coli* O157:H7 infection were identified by interviewing parents of infected children under 5 years of age from July 1988 through December 1989. If the child attended a daycare after onset, stool cultures were obtained from other children in attendance and their parents were interviewed. If there was presumptive evidence of ongoing *E coli* 0157:H7 transmission in a facility, all preschool children were excluded from attending daycare centers until two consecutive stool cultures were negative. There was no evidence of further transmission at centers where children were excluded temporarily until two consecutive stool cultures were negative.

The authors concluded that the number of unrecognized daycare outbreaks in the United States may

be substantial due to the lack of routine testing for this pathogen in stool cultures, the absence of public health surveillance in many regions, and incomplete follow-up of infected children. Temporary exclusion of all children was an effective control strategy but further research is needed to determine the optimal intervention.

FROM: Belongia EA et al. *JAMA* 1993;269:883-888.

Wild Poliovirus Type 3 in Canada Linked to Outbreak in Netherlands

From September 1992 to February 1993, 68 cases of poliomyelitis occurred among members of a religious community in the Netherlands. An investigation was conducted of members of an affiliated religious community in Alberta, Canada who had direct contact (ie, travel to and from the Netherlands) with members of the affected community. Wild poliovirus type 3 (PV3) of a strain virtually identical to the one that caused the outbreak in the Netherlands was isolated from stool specimens obtained from 21 (47%) of 45 persons (primarily children). No cases of paralytic poliomyelitis have been identified in Canada since 1988; however, because the clinical to subclinical case ratio for PV3 infection may be as low as 1:1000, wild poliovirus can circulate in a population for several months before paralytic disease occurs.

The last outbreak of poliomyelitis in the United States occurred in 1979 when 10 paralytic cases were reported. That outbreak originated in the Netherlands in 1978 when poliovirus type 1 spread from the Netherlands to Canada and then to the United States, involving the same religious group.

Although efforts to protect religious communities that object to vaccination continue, success has been limited. Only global eradication of poliomyelitis-a health goal for the year 2000 adopted by the World Health Assembly in 1988—will ensure that poliovirus infection will not cause paralytic disease in the United States or the rest of the world.

FROM: The Centers for Disease Control and Prevention. *MMWR* 1993;42:338-339.

Female Condom Approved by FDA

The FDA has approved the first female condom for distribution in the United States. The condom, available from Wisconsin Pharmacal Co., will cost about $2.50. The company said the polyurethane used to make the condom is stronger than the latex used in an ordinary male condom and is resistant to oils and oil-based lubricants. Acquired immunodeficiency syndrome (AIDS) activists are pleased and believe that it will prevent transmission of HIV to women, especially those who are unable to insist that their partners wear condoms.

C-Section Deliveries May Reduce Risk of HIV in Newborns

Dr. Paolo Villari and colleagues at Harvard School of Public Health recently conducted a meta-analysis of studies on perinatal HIV infection and found that 20.2% of infants born by vaginal delivery to infected mothers became infected and only approximately 14% of the babies delivered by C-section were infected. They concluded that performing elective C-sections in HIV-infected women is potentially an effective procedure to prevent HIV infection in newborns. These findings were distributed by the *Online Journal of Current Clinical Trials.*

Long-Term Mortality After Transfusion-Associated Non-A, Non-B Hepatitis Similar to Mortality from All Causes

Non-A, non-B hepatitis was recognized in the mid-1970s during the course of several prospective studies of transfusion-associated hepatitis. These studies found an incidence of hepatitis ranging from 7% to 17%, 78% to 92% of which represented non-A, non-B hepatitis. Initial concern about posttransfusion non-A, non-B hepatitis was limited because the acute illness seemed clinically mild and often was identified only because of serum enzyme monitoring. However, in later studies, half or more of affected patients continued to have increased aminotransferase activity more than six months after the initial illness. More disturbing have been the reports linking primary hepatocellular carcinoma with earlier bouts of transfusion-associated non-A, non-B hepatitis. Although chronic hepatitis, cirrhosis, and hepatocellular carcinoma now are accepted as sequelae, their frequency, rate of development, and the degree to which they contribute to mortality are not yet well established because current data come largely from retrospective studies.

Dr. Leonard B. Seeff and colleagues with the National Heart, Lung, and Blood Institute Study Group conducted a prospective study comparing the morbidity and mortality among patients who had received transfusions and in whom non-A, non-B hepatitis developed with those in matched control groups of persons who had received transfusions but did not develop hepatitis. After an average follow-up of 18 years, the estimated