

Time from infection to AIDS computed

Based on data from patients who acquired AIDS from blood transfusions, British scientists reported last week that children under the age of 5 at the time of infection develop their first symptoms of AIDS about two years after transfusion — more than four times earlier than the average eight-year “incubation time” seen in patients between the ages of 5 and 59. The statistical analysis, based on figures from 297 U.S. cases, also found that patients 60 years and older develop AIDS at an average of 5.5 years after transfusion.

Researchers at the University of London analyzed data provided by the Centers for Disease Control (CDC) in Atlanta to determine the average time from infection to development of AIDS. The scientists point out in the Aug. 20 NATURE that, although these incubation times may not prove to be identical to those seen among other groups of AIDS patients, knowing the exact date of infection from transfusion makes such studies a unique and valuable resource in understanding AIDS.

David R. Cox of the London group told SCIENCE NEWS that the data from the under-5 age group are the most conclusive, and incubation times for older patients may have to be updated as more data become available. CDC epidemiologist Harold Jaffe, who did not take part in the current study, said in an interview that “it looks like the rate of disease progression in AIDS from transfusions is more or less the same as in [AIDS from other sources].” Knowledge of average incubation times, however, does not mean someone at high risk can relax after a certain number of years following probable exposure to the AIDS virus, says Jaffe. “I think we [scientists] all believe that there is no such thing as a maximum incubation period [after which you are safe],” he says.

Revised AIDS definition released

Taking into account new information on the ways in which AIDS can attack the body, CDC epidemiologists have released an expanded definition of medical conditions that constitute a case of AIDS. The official definition, devised to help determine which cases should be reported to health officials, includes for the first time AIDS-associated degenerative disease of the brain and wasting syndrome (emaciation). Published in a supplement to the Aug. 14 MORBIDITY AND MORTALITY WEEKLY REPORT, the definition also broadens the number of conditions considered “AIDS-indicative,” which are viewed as strong evidence for AIDS — even if the patient tests negative for antibodies against the AIDS virus. State and local health departments are expected to begin tabulating cases on the basis of this definition by Sept. 1, according to the report. There have been more than 40,500 U.S. cases reported thus far.

Toxic shock and tampons revisited

Since tampons were first linked in 1980 to toxic shock syndrome (TSS) among menstruating women, scientists have studied tampon materials as contributing risk factors, resulting in the withdrawal in 1985 of tampon products containing polyacrylate. A recent epidemiologic study conducted by CDC scientists reaffirms the connection between tampon use and the potentially fatal disease, but concludes that earlier focus on polyacrylate as a high-risk factor “may not have been the most appropriate way to reduce the risk of TSS.” In a report in the Aug. 21 JOURNAL OF THE AMERICAN MEDICAL ASSOCIATION, the authors say that a tampon’s absorbency, and not its chemical composition, appears to be the main culprit. An accompanying editorial by Sidney M. Wolfe of Public Citizen Health Research Group in Washington, D.C., criticizes the Food and Drug Administration for its “dangerous delay” in completing proposed rules that require absorbency ratings on tampon packaging.

Finding a family for an *Ultrasaurus*

The name sounds like the answer to a child’s riddle: “What do you call a dinosaur that weighed more than 80 tons and could look down onto the roof of a five-story building?”

Ultrasaurus, of course.

But neither children nor low-budget filmmakers created this beast. In 1979, paleontologists at Brigham Young University in Provo, Utah, uncovered bones that suggested a dinosaur of that stature, and they coined this genus name. While other scientists have since discovered a dinosaur they call *Seismosaurus* (SN: 8/16/86, p.103), which surpassed *Ultrasaurus* in length, Brigham Young researchers believe that *Ultrasaurus* holds the title of the tallest and possibly heaviest dinosaur ever discovered.

Although they have created the genus name *Ultrasaurus*, scientists are still unsure whether the animal they are studying belongs in a genus of its own or was just a large *Brachiosaurus*—one of a genus of dinosaurs with long, slender tails and necks that are distinguished from other sauropods by having a front set of legs that was longer than their hind set.

This month, though, Brigham Young scientists unearthed a 4-foot-long neck vertebra that they think might finally settle the genus question. They say the answer hinges on whether *Ultrasaurus* has a bifurcated (branched) spine, and a thorough investigation in the coming months should determine this.

Ancient death and modern survival

Over the past 10,000 years, the California condor has vanished from the skies of its once large habitat in the western United States and Florida. Today, *Gymnogyps californianus* is near extinction, and all 27 remaining animals are living in captivity as part of a breeding program (SN: 4/25/87, p.263). This month, however, a paleontologist who studies ancient condors announced that prehistoric clues from caves in the Grand Canyon and other locations might help those who are seeking to reintroduce *G. californianus* to the wild.

In the most recent centuries, *G. californianus* populated a small area along the Pacific coast of Oregon and California, but scientists don’t know when and why the condors disappeared from their inland habitats. Though some have suggested that inland *G. californianus* survived until quite recently, a study published in the Aug. 14 SCIENCE concludes that condors in the Grand Canyon vanished about 10,000 years ago, at the end of the Pleistocene epoch.

Steven D. Emslie of the University of Florida at Gainesville based these conclusions on radiocarbon dating of condor tissue and bones found in caves in Arizona, New Mexico and Texas. He says this is the first use of radiocarbon dating on a large series of condor fossils, and it reveals that no samples are younger than 9,500 years old.

Within the Grand Canyon cave, Emslie also found fragments of a horse, a bison, a mammoth, a camel and an elephant. This leads him to believe that *G. californianus* preyed on the carcasses of these larger mammals, all of which disappeared from this region at the end of the Pleistocene. If so, says Emslie, “then their [*G. californianus*’s] disappearance from most areas at the close of the Pleistocene may be traced to a loss of food source.”

Some scientists have proposed releasing condors into the Grand Canyon as part of a recovery program, but Emslie says his findings suggest it is unlikely these birds would survive unless they were regularly supplied with supplemental food.

Meanwhile, in Ventura, Calif., Joseph Dowhan, who is coordinator of the Condor Recovery Program, told SCIENCE NEWS that none of the captive condors successfully mated during the breeding season this year, although Dowhan is sanguine about next year’s season, which begins in January.