Use of Raw Milk Persists Despite Rabies Scare

BY JOHN R. BELL
Associate Editor

SAN ANTONIO — People who drank raw milk purchased at an Oklahoma dairy where a cow tested positive for rabies last year were monthly otoscopically screened. They were 2-6 days old, between 300 and 3,000 ear examinations were performed on the same day. They were selected postexposure prophylaxis (PEP) to select persons who had consumed milk from the Swan Bros. dairy in Claremore during the time the infected cow had been present. She said the high cost of PEP meant that screening was necessary to identify those in whom the risk of transmission was deemed at risk and would protect us from the risk of becoming rabid. "While pasteurization does change the milk into the sinuses, the latter being an effective transmission medium.

An estimated 850 persons were screened via a phone bank, and PEP was given to 125 people (15%). Some persons not deemed at risk insisted on receiving PEP while others who were advised to receive it chose not to—in some cases upon the advice of their physician, Dr. Bradley said. The Department of Health later administered a telephone questionnaire to those who received PEP to determine if their milk-buying habits had changed; some refused to respond, believing the advice of their physician, Dr. Bradley said. She explained that transmission of the rabies virus via oral ingestion requires a much higher dose than does transmission via a bite. Moreover, oral transmission requires extended contact with the oral or nasal mucosa, the latter being the more effective transmission medium.

Dr. Robert Baltimore, professor of pediatrics and epidemiology at Yale University, New Haven, and a member of the American Academy of Pediatrics Infectious Diseases Committee, noted in an interview that the risks of raw milk consumption are well established. "Pasteurization of milk is, of course, one of the public health measures most of us take for granted, and it protects us against a variety of infections," he said. While pasteurization does change the chemistry of the milk slightly, there are no health benefits of raw cow’s milk. McKee has been demonstrated to be the transmission agent for brucellosis, tuberculosis, diphtheria, streptococci, Salmonella, Shigella, Campylobacter, Terrina, Listeria, and staphylococcal enterotoxin," he added.

"The degree of risk for any of these infections is related to the care and screening of the cows from whom the milk is taken and the care in holding of the milk until it is sold. We took it upon ourselves to see if we could find the information that was needed to make an accurate prediction of the risk of transmission," Dr. Baltimore said.

"I would not drink raw milk or recommend it to my patients," he emphasized. However, fear of rabies transmission generally is not among the reasons physicians advise against drinking raw milk, Dr. Baltimore said. Nonetheless, he noted that a 1999 report from the CDC found that “because of the nearly 100% case-fatality ratio of human rabies and the virtually complete effectiveness of PEP, many mass exposure incidents prompt administration of rabies immune globulin and vaccine, even if the circumstances do not meet the criteria for exposure. However, because rabies virus is inactivated by temperatures below those used for cooking and pasteurization, eating cooked meat or drinking pasteurized milk from a rabid animal is not an indication for PEP. Transmission of rabies virus in unpasteurized milk is theoretically possible” (MMWR 1999;48:228-9).

Although the federal government regulates interstate sales of all milk, intrastate sales are regulated by the states only, which vary in their restrictions. (See chart.)

---

Tympanograms Are Useful to Estimate Middle Ear Effusion

Two methods for estimating middle ear effusion were confirmed in a review of tympanometric and otoscopic data from children younger than 3 years. By Clyde C. Shugars, M.D., an otolaryngologist at Children’s Hospital of Pittsburgh, and his colleagues. A total of 6,350 children were enrolled in the study. Of these, 2,670 children were 2-6 days old, between June 1991 and December 1995. They had monthly otoscopic evaluations until 3 years of age, at which point 3,417 children had at least one tympanogram suitable for evaluation.

The overall likelihood of middle ear effusion (MEE) increased with tympanometric measures of lower height, greater width, and negative pressure among children aged 6-35 months. Middle ear fluid also increased with tympanometric measures of lower height, greater width, and negative pressure among children aged 6-35 months.

As an alternative to comparing the tympanometric findings with age-based values, the researchers created a mathematical algorithm that combined the tympanometric variables of height, pressure, and width, and applied it to the 4,761 ears for which all three of these values were available. For example, in children aged 6-35 months, MEE was present in 0.6 mL or higher and a 201-300 width. No effusion was found in ears with a tympanometric height of 0.6 mL and a width of at least 301 daPa. Based on the algorithm, the area under the curve was 0.84; values from 0.80-0.90 tend to be accurate predictors.

Notes: In Nevada, raw milk sale is legal on the producing farm but must be certified by the county milk commission; however, there are no county milk commissions in the state, so sale is de facto illegal. In Rhode Island, raw goat milk may be purchased from a farm with a physician’s prescription.

Source: Weston A. Price Foundation

Got Raw Milk?

Illegal and not available for human consumption
Sale legal only on farm where the milk is produced
Sale legal at stores
Illegal but available through cow and herd-share arrangements
Can be sold on farm for pet consumption only

Notes: In Nevada, raw milk sale is legal on the producing farm but must be certified by the county milk commission; however, there are no county milk commissions in the state, so sale is de facto illegal. In Rhode Island, raw goat milk may be purchased from a farm with a physician’s prescription.

Source: Weston A. Price Foundation

---

**Image Description**

The image contains a map and charts illustrating the availability and legality of raw milk in different states. The map highlights various regions in the United States, with different colors indicating the status of raw milk sales in those areas. The charts provide a breakdown of the availability and legal status of raw milk in specific states. The text accompanying the charts provides additional details on the regulations and availability of raw milk in these regions.