

Unprotected People #19

Varicella (Chickenpox)

How many varicella deaths will it take?

In 1998, six people in Florida died of varicella. The case reports of their deaths were published in the May 14, 1999, issue of the Morbidity and Mortality Weekly Report (MMWR) as part of an article entitled "Varicella-Related Deaths Florida, 1998."

The May 14th issue of IAC EXPRESS (#77) included these case reports. We are reprinting them here as an "Unprotected People" story because we believe these tragic deaths will convince those health professionals who still believe varicella is a harmless disease to begin vaccinating their susceptible patients.

Case 1: Death of a 6-year-old

On February 19, a healthy, unvaccinated 6-year-old boy developed a varicella rash, abdominal pain, malaise, and loss of appetite following exposure to a classmate with varicella. The child had asthma and intermittently had been on inhaled steroid therapy but had not received steroids within the previous month. On February 22, he was hospitalized with hemorrhagic skin lesions, tachycardia, tachypnea, and a platelet count of 89,000 (normal range: 150,000–350,000). Several hours after admission he developed pulmonary edema and respiratory insufficiency and required mechanical ventilation. He died on February 23. Tissue samples of multiple organs had a positive polymerase chain reaction for varicella zoster virus (VZV).

Case 2: Death of a 58-year-old

On March 27, a healthy, unvaccinated 58-year-old woman developed a varicella rash. She was born in Cuba and had moved to the United States in 1995. She did not have a history of or known exposure to varicella. On April 3, she was hospitalized with a 5-day history of increasing shortness of breath and productive cough and was diagnosed with varicella pneumonitis. She was treated with intravenous acyclovir and ceftriaxone, but developed adult respiratory distress syndrome (ARDS), disseminated in-

travascular coagulopathy, renal failure, and coma. She died on April 20.

Case 3: Death of a 29-year-old

On April 27, a healthy, unvaccinated 29-year-old man developed a varicella rash. In early April, his children had contracted varicella. On April 29, he sought care at a local emergency department for chest pain and respiratory distress. Chest radiographs showed bilateral pulmonary interstitial infiltrates. On April 30, he began coughing up blood, was intubated because of increasing respiratory insufficiency, and was treated with intravenous acyclovir and antibiotics. He developed sepsis, ARDS, and multiorgan failure, and died May 12.

Case 4: Death of a 21-year-old

On May 5, a 21-year-old unvaccinated female employee at a family child care center developed a varicella rash after exposure to a child with varicella. The employee had a history of asthma and was treated with 5 mg prednisolone per day. She was hospitalized on May 7 with varicella pneumonitis and received intravenous acyclovir on May 8, but she died the same day.

Case 5: Death of an 8-year-old

On July 11, an 8-year-old unvaccinated boy developed a maculopapular rash diagnosed clinically as varicella and confirmed by direct fluorescent antibody test on July 23. He had acute lymphocytic leukemia (ALL) and had been on immunosuppressive therapy since receiving a bone marrow transplant on May 15. He had not had varicella and had no known varicella exposure. He was treated with varicella zoster immunoglobulin on July 16 and acyclovir on July 23. He died on July 25 after recurrence of leukemia with a graft-versus-host reaction complicated by disseminated varicella, cellulitis, ileus, and hypertension.

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Case 6: Death of a 45-year-old

On October 3, an unvaccinated 45-year-old man with diabetes mellitus, asthma, and cirrhosis of the liver developed a varicella rash. He was born in Cuba and had resided in the United States for 35 years. He had no history of varicella and no known exposure. He was not receiving steroids or immunosuppressive drugs. He was admitted to the hospital with varicella on October 5 and on October 6, treatment was initiated with oral acyclovir. He died on October 8; pathologic evidence from the postmortem examination revealed VZV in all major organs.

Editorial Note: . . . Five of the six case-patients who died because of varicella were eligible for vaccination. The sixth, a child with active ALL (case 5), was ineligible for vaccination. Under a special protocol, children with ALL who meet inclusion criteria may be vaccinated. Although one case-patient was re-

ceiving systemic steroids when she contracted varicella, the dose was not large enough to be a contraindication; varicella vaccine can be administered to adults receiving less than 20 mg prednisone per day or its equivalent, and to children receiving less than 2 mg per kg body weight per day or a total of less than 20 mg per day.

Two case-patients (2 and 6) were aged greater than 30 years and were born and raised in Cuba. The epidemiology of varicella in tropical regions differs from that in temperate regions. VZV is heat labile and may not survive and transmit well in warm climates. In the tropics, age distribution of cases and VZV seroprevalence data have indicated a higher proportion of cases occurring among adults. Clinicians should be aware of the greater susceptibility of adults to varicella when evaluating persons from tropical countries.