

## HEPATITIS A: RECOMMENDATIONS FOR CHILD VACCINATIONS IN OREGON

**H**EPATITIS A is an often serious and always preventable infection. Historically, hepatitis A rates fluctuate over a wide range, with a periodicity of six to eight years. Oregon and several other western states usually boast rates several times the national average (see graph). From 1989-1998, we have logged 10,678 cases. The 10-year average (35/100,000 per year) belies the fact that in some years (1995, 1989) we have reached levels 8-10x national levels.

In October, the Advisory Committee on Immunization Practices (ACIP) issued revised hepatitis A prevention guidelines, recommending that children in states with an annualized incidence greater than 20/100,000/year be immunized routinely against hepatitis A.<sup>1</sup> In this issue, we explain our enthusiastic support of this recommendation.

### EPIDEMIOLOGY

With few exceptions, hepatitis A virus (HAV) is spread by ingestion of human fecal material shared among family and friends. The highest infection rates are typically seen in children under 15 years of age. U.S. seroepidemiologic studies in children suggest that asymptomatic infection is common. For this reason, children provide a reservoir of HAV at home, in their community,<sup>2</sup> and, especially if diapered, in day care.<sup>3,4</sup> Also at risk are young adults using drugs;<sup>5,6</sup> in two epidemic Oregon counties (with incidence over 220/100,000) in 1995, over 40% of cases interviewed had used illicit drugs during the 30 days before illness.<sup>7</sup>

### BURTHEN

Hepatitis A can be extremely debilitating, with many persons incapacitated or at least moderately impaired for weeks. Persons having preexisting liver disease have an increased risk of fulminant disease, acute liver failure, and potential need for transplant.<sup>8</sup> Mortality overall is 0.3%, but rises to 1.8% for adults over 50 years of age.<sup>9</sup>

Public health efforts to prevent hepatitis A have traditionally focused on immediate contacts. The response begins with a reported positive hepatitis A IgM antibody (IgM anti-HAV) test result, which constitutes clinical confirmation of acute disease (elevated total anti-HAV will trigger an inquiry for explanation).

Friends admitting to potential fecal-oral contact and household members are offered immune globulin (IG) for prophylaxis. In high-incidence years, IG consumption soars in efforts to thwart disease: in 1995, during a national shortage, over 31,000 ml of IG were provided to Oregonians. Medical and other associated costs (e.g., lost work time) place the price tag at \$433 to \$1,452 per case for children and \$1,817 to \$2,459 for adults.<sup>10</sup> Popular misconceptions notwithstanding, professional food handlers are not at increased risk for HAV infection, nor are people who eat out. Identification of a food handler with acute hepatitis A, however, calls forth work-site inspections, management angst, and, when hand washing has been less than exemplary, an alert to patrons of the potential exposure. Such "alerts" drain local health department resources supplying information and prophylaxis to the worried public and cause business revenue to be lost. Substantial public and private dollars are spent on hepatitis A. In Denver, a common-source outbreak (43 cases and perhaps 5000 exposed) cost nearly \$800,000.<sup>11</sup> In reality, many newly diagnosed persons recall no contact with a case, which would have led to a preven-

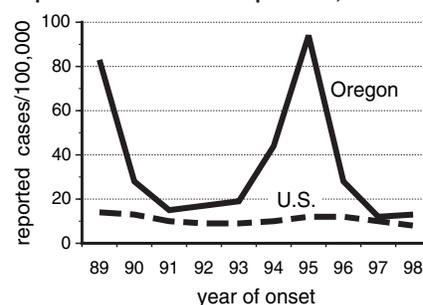
tive dose of IG. The recent revised ACIP recommendation reminds us that hepatitis A is a vaccine-preventable disease. With hepatitis A vaccine, we hope to emulate prior disease-eradication successes and flatten Oregon's epidemic curve, instead of merely marveling at it.

### THE VACCINES

Two inactivated HAV vaccines are licensed in the US: Havrix® (SmithKline Beecham) and VAQTA® (Merck). Both are given as a series of two injections in the deltoid muscle, at least six months apart. Observing the minimum spacing between doses is important, but there is no limit on maximum spacing (i.e., the series never need be restarted). Opportunities to give this vaccine (approved only for ages 2 and up) should be exploited fully as they present. These shots can be incorporated into other visits and administered simultaneously with all other routine childhood immunizations. The vaccine confers protection to >90% of children and adolescents one month after the first dose. Both doses are needed to ensure long-term protection. No serious adverse reactions have been attributed to either Havrix® or VAQTA®. The most common side effects are soreness at the injection site (19-21% of children), headache (3-9% of children), and fever (3-10% of children).<sup>12</sup> As with any vaccine, temporally associated adverse events should be reported to the Vaccine Adverse Event Reporting System (800/822-7967).

We agree that all Oregon kids ≥2 years of age should be vaccinated. But who will pay for it? Oregon's Vaccines For Children (VFC) program is an entitlement providing ACIP-recommended vaccines (now including hepatitis A) to children under age 19 who are: 1) on the Oregon Health Plan; or 2) American Indian or Alaskan Native; or 3) have no health insurance. If parents of VFC-eligible children choose to bring them to a public clinic for vaccination against hepatitis A, they should expect some charge, which may vary locally.

Reported Incidence of Hepatitis A, 1989-98



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Funding from a second federal source, Section 317 of the Public Health Service Act, has not increased as new vaccines have been added to the schedule, and will not pay for hepatitis A vaccine. A few children may already have insurance coverage that would pay for vaccination, and we hope that all Oregon insurers will enthusiastically support these recommendations.

**RELATED NEWS**

Currently, hepatitis A vaccination is not required for school attendance. However, this is a good time to remind readers that rules were changed in 1997 to add several new vaccine requirements that have or will become effective in coming school years (see table). Please contact Karin Romey or Amanda Timmons at 503/731-4020 for more information about school immunization requirements.

"It seems unfortunate that outbreaks of hepatitis A continue to occur in one of the most affluent countries in the world, given that hepatitis A vaccines that are highly immunogenic, highly effective, and safe are readily available."<sup>13</sup> Don't let's wait for the next epidemic.

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**Influenza Update**

*"In no affairs of mere prejudice, pro or con, do we deduce inferences with entire certainty, even from the most simple data."*

Poe EA. Narrative of A. Gordon Pym. London: 1838.\*

**A**N ENIGMATIC influenza season is underway. Our first isolate of the season came from a Clackamas County man who became ill on October 11—the earliest seasonal isolate ever found in the modern era. No fluke, it was quickly followed by several others. Washington and California also reported early cases. Since then, however, things have kind of petered on and off in Oregon. As of today, there has been a total of 9 isolates recovered from the 127 samples received—all type A (but none subtyped yet). No cases have been reported with onsets since November 17.

Washington, on the other hand, reports 79 isolates as of yesterday, including one type B. Overall, U.S. influenza activity can be characterized as moderate to light. Only seven states reported even "regional" influenza activity (more than "sporadic" but less than the dreaded "widespread").

Frankly, we have no idea what will happen next. All we can say is that it is not too late to immunize your patients.

\* Astute readers will note that we have used this quotation before. It just seemed so *right*, however, that we have chosen to run it again.

**New School Immunization Requirements, Oregon\***

If your child will be attending:	Beginning School Year	Additional Shots Required
child care	1998-99	hepatitis B
child care	2000-01	varicella†
kindergarten	1998-99	hepatitis B, 2nd dose measles
kindergarten	2000-01	varicella†
7th grade	2000-01	hepatitis B, 2nd dose measles, varicella†

\* All requirements include additional grades as the original children advance through school (e.g., in SY 1999-2000, hep B is required for kindergarten and 1st grade).

† Or parent-signed history of disease.