Salmonellosis - Technical Information

**Clinical Features**
Fever, abdominal cramps, and diarrhea (sometimes bloody). Occasionally can establish localized infection (e.g., septic arthritis) or progress to sepsis.

**Etiologic Agent**

**Incidence**
An estimated 1.4 million cases occur annually in the United States; of these, approximately 30,000 are culture-confirmed cases reported to CDC.

**Sequelae**
Estimated >500 fatal cases each year; 2% of cases are complicated by chronic arthritis.

**Transmission**
Contaminated food, water, or contact with infected animals.

**Risk Groups**
Affects all age groups. Groups at greatest risk for severe or complicated disease include infants, the elderly, and persons with compromised immune systems.

**Surveillance**
National surveillance is conducted through the public health laboratories for culture-confirmed cases and through the National Notifiable Diseases Surveillance System (NNDSS). Active laboratory- and population-based surveillance is conducted in FoodNet sites.

**Trends**
Half of salmonellosis cases are caused by 2 serotypes: *S. Enteritidis* (SE) and *S. Typhimurium* (ST). The proportion of salmonellosis caused by SE increased markedly from 1980 to 1995, but has decreased 22% since 1996. The incidence of ST decreased 24% since 1996, but an increasing proportion of isolates show resistance to multiple antimicrobial agents. *S. Newport* has increased 32% from 1996 to 2001 to become the third most frequent serotype, with many isolates resistant to >9 antimicrobial drugs.

**Challenges**
Identifying unrecognized major sources of *Salmonella* infections. Assuring adequate supply of serotyping reagents; controlling SE infections through changes in the egg industry and education of food service workers and consumers; and developing effective education methods and materials to prevent reptile-associated salmonellosis.
Opportunities Improving detection of dispersed outbreaks through use of capability to state health departments; training state health department personnel in *Salmonella* serotyping; and encouraging judicious use of antimicrobial agents in veterinary medicine.

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