

Shigella infection or shigellosis is an individually notifiable disease. The notification criteria are clinical illness and the demonstration of Shigella spp. in clinical specimens.

Individually notified cases

In the period 1980-2000 the Dept. of Epidemiology received a total of 1987 notifications of shigellosis, Fig. 1. The age distribution and frequency of hospital admission are shown in Table 1. Altogether 26% of patients were admitted to hospital. Only one fatality was reported, that of a previously fit 5-year-old boy with *S. flexneri* infection.

Table 1. Notified cases of shigellosis 1980-200 by age, hospital admissions and place of infection

| Age (yrs) | Total notified | Hospital adm. (%) | Acquired in DK |
|--------------|----------------|-------------------|----------------|
| 0-10 | 401 | 183 (46) | 33 % |
| 11-20 | 219 | 68 (31) | 16 % |
| 21-30 | 549 | 104 (19) | 15 % |
| 31-40 | 349 | 78 (22) | 24 % |
| 41-50 | 220 | 32 (15) | 19 % |
| 51-60 | 161 | 30 (19) | 19 % |
| 61-70 | 58 | 15 (26) | 14 % |
| 70+ | 30 | 13 (43) | 23 % |
| Total | 1987 | 523 (26) | 21 % |

Place and mode of infection

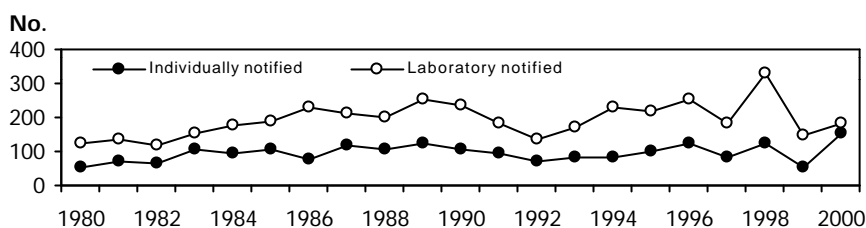
The majority (79%) of patients acquired their infection abroad. Of these, 27% had been to Africa (Egypt 29%, Tunisia 21% and Morocco 13%), 28% to Asia (India 35%, Pakistan 16% and Nepal 13%) and 29% to Europe (Turkey 52% and Greece 11%). The remaining cases (16%) were infected in other parts of the world. Over a fifth of all patients (422) acquired the infection in Denmark. 17% of these cases were stated to have been infected by foods, 10% by personal contact and 2% from other sources, while the source of infection was stated as unknown in 70%. There were no major differences in sources of infection between age groups.

Laboratory-notified cases

Since 1993 the finding of Shigella in faeces has been notifiable to the Dept. of Gastrointestinal Infections at Statens Serum Institut. Up to that time few counties had taken over intestinal bacteriological investigations from Statens Serum Institut, so that data from before and after 1993

SHIGELLOSIS 1980-2000

Fig. 1. Notified cases of shigellosis, 1980-2000



are broadly speaking comparable. 4048 infections were notified over the whole period, Fig. 1. These were distributed as 3% *S. dysenteriae*, 68% *S. sonnei*, 23% *S. flexneri*, 5% *S. boydii* and 1% other spp. There was a steady rise in the number of reported cases from 1980 to 1990. Over the rest of the period the level has varied, with a notable rise in 1998 that can probably be attributed to an outbreak caused by imported baby maize, EPI-NEWS 33/98.

Resistance to antibiotics

Resistance and multiresistance are common in Shigella spp. This resistance is often carried by plasmids and is relatively easily transferred. The type of resistance depends on the serotype and on the country in which the infection was acquired. In many developing countries infections are often treated with sulphamide+trimethoprim, so that both sulphamide and trimethoprim resistance are now usual there. Ampicillin resistance is also widespread. Nalidixic acid is also used for treating presumed shigellosis in these countries, which may select for fluoroquinolone-resistant mutants. The treatment of choice in Denmark is often a fluoroquinolone for adults and meclillinam for children, but the definitive treatment should be determined by the resistance pattern found. Treatment with antibiotics shortens the course of illness and the period of bacterial excretion.

Comments

The dysentery bacillus is very infectious and can cause severe disease, especially in smaller children and in the elderly. The reservoir for Shigella is man; the infection is therefore not a zoonosis. The route of infection is faecal-oral, e.g. via contaminated foods or water, as well as by direct personal contact. Outbreaks occasionally occur within families, EPI-

NEWS 44/98, in day-care institutions, EPI-NEWS 4/96, or in connection with imported foods, especially vegetables, EPI-NEWS 33/98. For employees in the food industry and food shops and for staff and children at child-care institutions, the general rule is that two negative stool cultures must be obtained before returning to work or resuming attendance at the institution. However, the decision in each case depends on the judgement of the local Medical Officer of Health. In January 2000 a reminder procedure was introduced for individual notifications, based on the laboratory results. In the period 1980-1999 the notified cases made up 47% of those recorded by the Dept. of Gastrointestinal Infections; after the reminder procedure was implemented, this proportion rose to 83%. (D. Wandall, Dept. of Epidemiology, P. Schiellerup, K. Mølbak, Dept. of Gastrointestinal Infections)

HIV/AIDS, 2nd half-year 2000

As shown in the enclosed report, a total of 48 patients were diagnosed as having AIDS in 2000; 19 died of AIDS, and 505 persons were living with AIDS by the end of the year. At that time a total of 3064 persons with newly diagnosed HIV infection had been notified since August 1990. During the year 2000, HIV infection was diagnosed in 248 persons, a fall of 13% from 1999. Of the notified cases, 71 (29%) were men having sex with men, while 139 (56%) were heterosexually infected. In 2000 five persons were thought to have been infected by blood transfusions; all were immigrants infected abroad. A total of 27 persons have been infected by transfusion since the start of the HIV epidemic. Seven of these were infected in Denmark, all before 1986.

(Else Smith, Dept. of Epidemiology)

7 March 2001

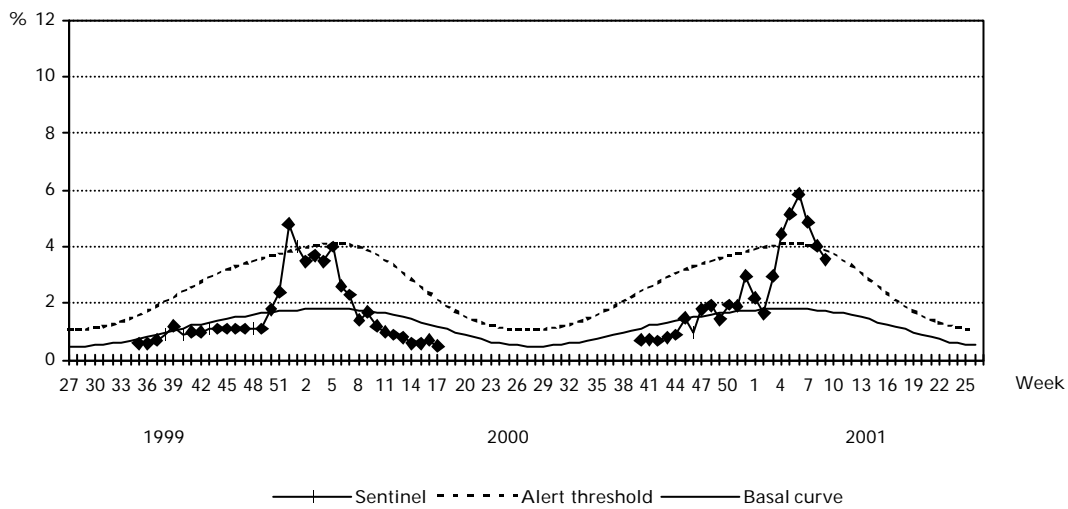
Patients with laboratory-diagnosed RSV or rotavirus infections, 2000/2001

| November | | December | | January | |
|----------|------|----------|------|---------|------|
| RSV | Rota | RSV | Rota | RSV | Rota |
| 17 | 10 | 80 | 23 | 288 | 50 |

Reported from the following Clinical Microbiology Departments:
 Aalborg Hospital (South), Aarhus Municipal Hospital, Herning Central Hospital,
 Hvidovre Hospital, Odense University Hospital, Slagelse Central Hospital,
 Viborg Hospital, and the Department of Virology, Statens Serum Institut.

Sentinel surveillance of influenza activity

Weekly percentage of consultations, 1999/2000/2001



- Sentinel:** Influenza consultations as % of total consultations
- Basal curve:** Expected frequency of influenza consultations under non-epidemic conditions
- Alert threshold:** Possible incipient epidemic

(Dept. of Epidemiology)