

IMPETIGO

Impetigo is a highly contagious skin disease caused by staphylococci or streptococci. The disease is infectious through its suppurating lesions until crust has fallen off. Infection can occur by direct contact with lesions and indirectly, for example via hands, whereby the bacteria can be transferred to other parts of the body (auto-infection), to objects or other persons.

Recommendations to reduce the risk of contact transmission:

At home:

- Hand-washing with water and soap after contact with lesions.
- Personal towel for everybody.
- Daily change of towels, close-fitting clothes with contact to lesions and items such as pillowcases if the lesions are on the face.
- Washing of clothes at min. 80° C.

In institutions:

- Small children must not be allowed into institutions before the lesions have dried and the crusts have fallen off. Even though treatment has been initiated, infection can still be transferred from the lesions.
- Children of school age may be allowed in institutions and schools if the lesions are not widespread.
- Staff must comply strictly with recommendations on hand-washing and use of disposable towels on contact with lesions, wiping the nose and so on. Alternatively, the hands can be wiped with alcohol swabs (70-85% ethanol) or with alcohol-based hand disinfectant.

Recommendations to reduce the bacterial count in the environment in case of long-term outbreaks:

- Thorough cleaning with ordinary cleansing agents.
- Vacuum-cleaning of fabric-covered surfaces and possible washing or cleaning of textiles, if these have been in close contact with lesions or nasal secretions.
- Toys that may be contaminated with secretions are washed daily with water and soap, possibly in the dishwasher.
- It is important to clean contact points in the environment, for example handles and telephones.
- Items that cannot be washed with water can be wiped with alcohol instead.

In case of major outbreaks, swabbing and possibly antibiotic treatment of children with lesions should be initiated after consultation with a speci-

alist as well as a visiting nurse, a municipal doctor and/or a medical officer of health.

(E. Tvenstrup Jensen, Department of Antibiotic Resistance and Hospital Hygiene)

OUTBREAK OF BULLOUS IMPETIGO IN VIBORG, 1999-2003

In August 1999, the Clinical Microbiology Department recorded a ten-fold increase in the number of *Staphylococcus aureus* swabbed from patients with impetigo. The cultures were submitted from general practice. Increased attention to the outbreak led to a further increase in the number of cultures submitted. The increased incidence continued in 2000, and in the last three years distinctive peaks have occurred in August-September, [Fig. 1](#). Most of the patients had bullous impetigo. Analyses of random samples showed that the *S. aureus* strains secreted exfoliative toxin A and/or B. Most of patients were children in the pre-school age or in the first school grades. Intra-family infection was often seen, and occasional relapse occurred. Most patients were treated effectively with oral dicloxacillin. None of the strains have shown methicillin resistance, however, all were penicillin-resistant.

Despite more stringent hand hygiene in child-care and other institutions, the incidence of *S. aureus* isolated from impetigo remained unchanged. Concurrent with the high incidence of bullous impetigo, there was an increased incidence of children admitted to children's wards with culture-confirmed staphylococcal scalded skin syndrome (SSSS), [Fig. 2](#). Before 1999, the diagnosis of SSSS was rare, however, in the last five years about 10 patients were admitted annually, of whom half were under one year old. The average duration of admission was eight days. In just over half of the cases, information on known possible sources of infection was provided.

Comments

As the outbreak of bullous impetigo in Viborg County continues, possible overlooked routes of transmission, failure to conform with hygiene recommendations and/or resistance must be considered. Outbreaks of bullous impetigo may have great financial consequences for both the public sector and the families involved, and for the latter, they also have social consequences.

(J. Prag, J. Tagesen, C. Borg, Viborg Hospital)

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Fig. 1. No. of isolates with *S. aureus* from patients with impetigo, submitted from general practice in Viborg County, per week, 1 May 1998 – 30 Sep 2003

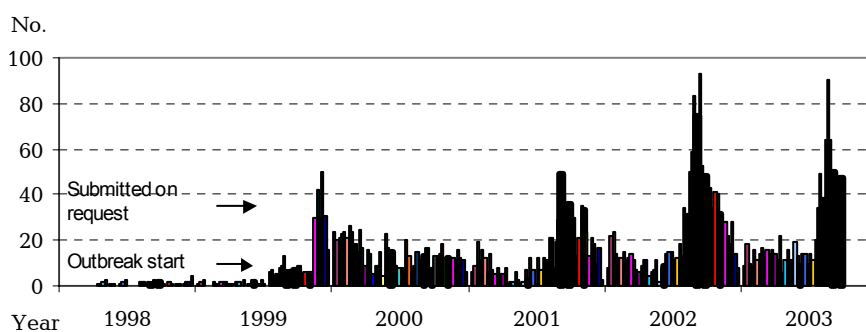
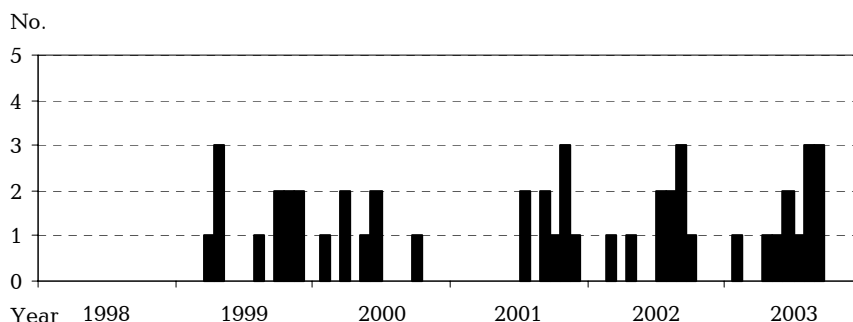
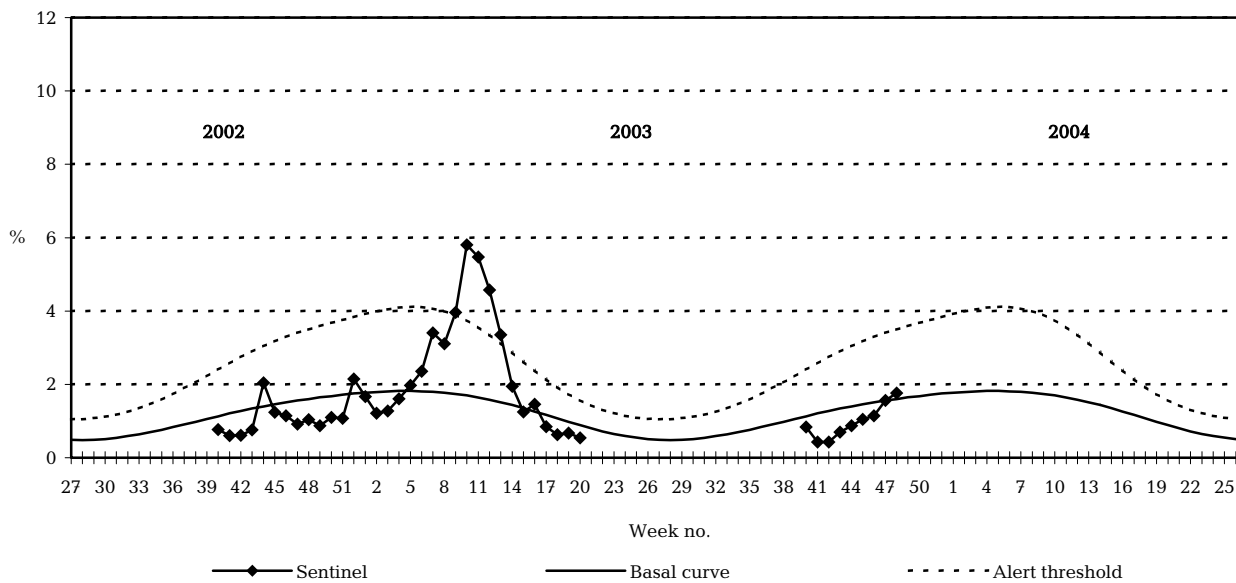


Fig. 2. No. of children with staphylococcal scalded skin syndrome admitted to the children's ward, Viborg Hospital, per month, 1 May 1998 – 30 Sep 2003



Sentinel surveillance of influenza activity

Weekly percentage of consultations, 2002/2003/2004



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

(Dept. of Epidemiology)

Secretion specimens received from the sentinel surveillance

Week no.	2003												2004																
	44	45	46	47	48	49	50	51	52	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
No. received	0	5	6	12	9	1																							
Influenza A																													
A/H3				3	1																								
A/H1																													
Influenza B																													

(Depts. of Epidemiology & Virology)