

# 1.5 Other forms of Bacterial Meningitis

## Summary

Number of other forms of bacterial meningitis 2006: 81

Meningitis due to *Streptococcus pneumoniae* accounted for over a quarter of these notifications.

Apart from *Neisseria meningitidis*, which is considered, the most common cause of bacterial meningitis in Ireland, other forms of the disease do occur. Details of these are presented below. For details on invasive meningococcal disease (which includes *N. meningitidis* meningitis), see a separate chapter within this report.

### *Streptococcus pneumoniae*

In 2006, 23 cases of pneumococcal meningitis were notified, compared to 19 in 2005 and 22 in 2004. Cases in 2006 ranged in age from one month to 80 years. There were three pneumococcal meningitis related deaths, all were in adults. See a separate chapter on invasive pneumococcal disease for further details.

### *Haemophilus influenzae*

In 2006, four cases of meningitis due to *H. influenzae* were notified. Three cases were in young infants, age <6 months and all were due to *H. influenzae* type b. The fourth case was due to *H. influenzae* non-capsular, aged two years, and this patient died. See a separate chapter on invasive *H. influenzae* disease for further details.

### Group B streptococci

Four cases of meningitis due to *Streptococcus agalactiae* were notified in 2006. All were neonatal cases. No deaths were reported.

### *Escherichia coli*

Three cases of *E. coli* meningitis were notified in 2006. Two were neonatal cases and one was in an older infant, <1 years old.

### *Mycobacterium tuberculosis*

In 2006, six *M. tuberculosis* meningitis cases were notified (provisional figure). Cases ranged in age from

Table 1. Annual number of other forms of bacterial meningitis notified

| Notified under                                       | Causative Pathogen                           | 2004      | 2005      | 2006      |
|--|--|-----------|-----------|-----------|
| <i>Streptococcus pneumoniae</i> infection (invasive) | <i>S. pneumoniae</i>                         | 22        | 19        | 23        |
| <i>Haemophilus influenzae</i> disease (invasive)     | <i>H. influenzae</i>                         | 4         | 9         | 4         |
| Listeriosis  | <i>L. monocytogenes</i>                      | 1         | 1         | 1         |
| Streptococcus group A infection (invasive)           | <i>S. pyogenes</i>                           | 0         | 1         | 1         |
| Tuberculosis   | <i>M. tuberculosis</i>                       | 6         | 9         | 6*        |
| Bacterial meningitis (not otherwise specified)       | <i>E. coli</i>                               | 1         | 0         | 3         |
|  | <i>K. pneumoniae</i>                         | 0         | 0         | 1         |
|  | <i>P. aeruginosa</i>                         | 1         | 1         | 0         |
|  | <i>S. aureus</i>                             | 0         | 1         | 1         |
|  | Staphylococcus coagulase negative            | 0         | 0         | 1         |
|  | <i>S. agalactiae</i> (Group B streptococcus) | 6         | 5         | 4         |
|  | Streptococcus Group C                        | 0         | 1         | 0         |
|  | Unknown                                      | 28        | 22        | 36        |
|  | <b>Total BacMen (nos)</b>                    |           | <b>36</b> | <b>30</b> |
| <b>Other forms of bacterial meningitis</b>           | <b>Total</b>                                 | <b>69</b> | <b>69</b> | <b>81</b> |

\* TB meningitis figure for 2006 is provisional

1-74 years (4 children and 2 adults). No deaths were reported.

#### **Other causative pathogens**

Cases of bacterial meningitis due to other pathogens were also notified in 2006. One meningitis notification for each of the following was received: *Listeria monocytogenes* in an adult, *Klebsiella pneumoniae* in a neonate, *Staphylococcus aureus* in a one year old, coagulase negative staphylococcus in an infant and *Streptococcus pyogenes* (group A streptococcus) in a teenager.

#### **Bacterial meningitis (not otherwise specified)**

In total 46 cases of meningitis under this disease category were notified in 2006. The causative pathogens were identified in 10 of these and are detailed above (see group B streptococci, *E. coli*, *K. pneumoniae*, *S. aureus* and coagulase negative staphylococcus). No causative pathogen was identified for 36 of the notifications, an increase compared to 2005 (n=22) and 2004 (n=28).

A marked increase in viral meningitis activity was also seen in 2006, with 148 cases being notified compared to 35 cases in 2005 (see separate chapter for further details). There is a possibility that some of the bacterial meningitis cases of unknown aetiology reported in 2006 may in fact be viral meningitis cases but could not be distinguished clinically, hence explaining the increase in the former.

The figures presented in this summary are based on data extracted from the Computerised Infectious Disease Reporting system (CIDR) on 31<sup>st</sup> August 2007. These figures may differ from those published previously due to ongoing updating of notification data on CIDR. The TB meningitis figures were obtained from the National Tuberculosis Surveillance System (NTBSS).