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NEWS STORIES:

- ▾ Updated UK meningococcal disease guidelines published
- ▾ Changes to childhood immunisation programme come into effect

INFECTION REPORTS:

Respiratory:

- ▾ Laboratory reports of respiratory infections made to the Health Protection Agency Centre for Infections from HPA and NHS laboratories in England and Wales: weeks 31-34/06

National Standards

- ▾ Standard Method updates – Monthly content update: September 2006

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News

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Updated UK meningococcal disease guidelines published

Changes to childhood immunisation programme come into effect

Updated UK meningococcal disease guidelines published

The Health Protection Agency Meningococcus Forum has reviewed and updated the UK guidelines for meningococcal disease on the HPA website [1]. This guidance updates the major revision published in 2002 [2] taking account of new evidence and addressing new areas where gaps have been identified. Changes are few and are highlighted in the text.

Two papers have recently been published on mortality from meningococcal disease and penicillin by injection before admission, a case control study [3] and a systematic review [4]. In the case control study, administration of penicillin was associated with a higher mortality; in the systematic review, the association with harm or benefit was inconsistent. Both papers came to the conclusion that results of such observational studies are difficult to interpret because of confounding factors such as speed of progression and stage of illness at time of treatment. This lack of hard evidence was recognised in the previous guidance. In the absence of data from randomised controlled trials, the Meningococcus Forum continues to advise starting antibiotic treatment before admission to hospital. This advice is based on the potentially very rapid clinical deterioration that can occur in natural progression of illness, the established effectiveness of penicillin in hospital treatment, and the lack of increase in endotoxin levels after treatment. Rapid transfer to hospital on diagnosis of meningococcal disease remains the highest priority.

The HPA endorses its advice not to give antibiotics widely in pre-school groups after a single case in such a group. The sections on vaccination and chemoprophylaxis have been updated, and examples of patient group directions for mass prophylaxis have been added. Investigation of complement deficiency is now recommended in cases of infection due to rare serogroups or of recurrent infection.

References

1. Health Protection Agency Meningococcus Forum. *Guidance for public health management of meningococcal disease in the UK*. London: HPA, 2006. Available at <http://www.hpa.org.uk/infections/topics_az/meningo/guidelines.htm>.
2. Public Health Service Laboratory Service Meningococcus Forum. Guidelines for public health management of meningococcal disease in the UK. *Commun Dis Public Health* 2002; **5**:187-204.
3. Harnden A, Ninis N, Thompson M, Perera R, Levin M *et al*. Parenteral penicillin for children with meningococcal disease before hospital admission : case control study. *BMJ* 2006; **332**: 1295-8.
4. Hahné SJM, Charlett A, Purcell B, Samuelsson S, Camaroni I, *et al*. Effectiveness of pre-admission antibiotics in reducing mortality from meningococcal disease: systematic review. *BMJ* 2006; **332**: 1299-303.

Changes to childhood immunisation programme come into effect

Pneumococcal conjugate vaccine (PCV) will be introduced into the childhood immunisation programme from 4 September 2006 (1). There will also be a pneumococcal vaccination catch-up campaign for children aged less than two years.

In order to monitor the impact of the PCV vaccination programme on the incidence of invasive pneumococcal disease (IPD) caused by the seven vaccine serotypes, vaccine-related serotypes and non-vaccine serotypes in the age groups targeted by the vaccine, the Health Protection Agency through its Immunisation Department, Respiratory and Systemic Infection Laboratory at the CFI and Vaccine Evaluation Unit and Meningococcus Reference Unit at Manchester Regional HPA laboratory have set in place a detailed surveillance protocol. In addition to conventional culture based surveillance for IPD, diagnostic PCR (Meningococcus Reference Unit at Manchester Regional HPA laboratory) and serotype specific antigen detection will be undertaken on culture negative cases of meningitis (all ages) and empyema occurring in children in order to maximise the surveillance information obtained. In addition, IPD cases in children eligible for routine or catch-up immunisation will be further investigated for risk-factors and mechanisms of PCV vaccine failure and to measure the serotype-specific IgG response to a booster dose in these children. Following the experience in the United States, where PCV immunisation was introduced in 2001, it is anticipated that there will also be significant impacts on invasive pneumococcal disease in age groups not targeted for PCV vaccination. Thus the surveillance also aims to examine the indirect effect of the PCV vaccination programme on the incidence of IPD caused by vaccine and non-vaccine serotypes in older age/ unvaccinated age groups and, in those aged 65 years and over, and to compare the magnitude of this effect with that of the existing 23-valent plain polysaccharide vaccination (PPV) programme. Clinical laboratories are requested to refer all invasive isolates of *Streptococcus pneumoniae* irrespective of patient age to the Respiratory and Systemic Infection Laboratory at the HPA Centre for Infections. Culture-negative CSF and empyema samples should be referred to the Meningococcus Reference Unit at Manchester Regional HPA laboratory for pneumococcal PCR, positive samples will be forwarded to RSIL for serotype specific antigen detection.

The pneumococcal pages on the HPA website have been suitably updated and may be viewed at http://www.hpa.org.uk/infections/topics_az/pneumococcal/default.htm.

A protocol for the clinical management of cases of invasive pneumococcal disease (ipd) in children targeted for routine or catch-up vaccination with pneumococcal conjugate vaccine (Prevenar™) has been drawn up and is available at http://www.hpa.org.uk/infections/topics_az/pneumococcal/documents/clinmanageprotols1_2_.pdf.

The surveillance protocol is available at http://www.hpa.org.uk/infections/topics_az/pneumococcal/documents/infant_protocol_version2.pdf.

References

1. Chief Medical Officer, Chief Nursing Officer, Chief Pharmaceutical Officer. *Important changes to the childhood immunisation programme. PL/CMO/2006/1*. London: Department of Health, 12 July 2006.

Respiratory

Last updated: 1 September 2006, Volume 16, No. 35 Next update: 5 October 2006

Respiratory Routine Data Reports

▣ Laboratory reports of respiratory infections made to the Health Protection Agency Centre for Infections from HPA and NHS laboratories in England and Wales: weeks 31-34/06

▣ Laboratory reports of respiratory infections made to the Health Protection Agency Centre for Infections from HPA and NHS laboratories in England and Wales: weeks 31-34/06

Table 1 Reports of influenza infection made to HPA Centre for Infections, by week of report: weeks 31-34/2006

Week	Week 31	Week 32	Week 33	Week 34	Total
Week ending	06/08/06	13/08/06	20/08/06	27/08/06	
Influenza A	2	7	2	5	16
Isolation	–	6	1	3	10
DIF*	1	–	–	–	1
Four-fold rise in paired sera	–	–	–	–	–
PCR	–	–	–	–	–
Other†	1	1	1	2	5
Influenza B	–	–	–	4	4
Isolation	–	–	–	2	2
DIF*	–	–	–	–	–
Four-fold rise in paired sera	–	–	–	–	–
PCR	–	–	–	–	–
Other†	–	–	–	2	2
Influenza (untyped)	–	–	–	–	–
Isolation	–	–	–	–	–
DIF*	–	–	–	–	–
Four-fold rise in paired sera	–	–	–	–	–
PCR	–	–	–	–	–
Other†	–	–	–	–	–

*DIF = Direct Immunofluorescence. †'Other' = 'Antibody detection – Single high titre' or 'method not specified'.

Table 2 Respiratory viral detections by any method (culture, direct immunofluorescence, PCR, four-fold rise in paired sera, single high serology titre, genomic, electron microscopy, other method, other method unknown), by week of report: weeks 31-34/2006

Week	Week 31	Week 32	Week 33	Week 34	Total
Week ending	06/08/06	13/08/06	20/08/06	27/08/06	
Adenovirus*	16	20	26	20	82
Coronavirus	–	–	–	–	–
Parainfluenza†	3	19	6	3	31
Rhinovirus	–	4	1	–	5
Respiratory syncytial virus (RSV)‡	–	2	3	2	7

*Respiratory samples only. Excludes diagnoses made by electron microscopy (EM).

†Includes parainfluenza types 1, 2, 3, 4, and untyped.

‡ Excludes diagnosis made by electron microscopy (EM).

Table 3 Respiratory viral detections by age group: weeks 31-34/2006

Age group (years)	<1 year	1-4 years	5-14 years	15-44 years	45-64 years	≥65 years	Unknown	Total
Adenovirus*	3	9	7	39	18	5	1	82
Coronavirus	–	–	–	–	–	–	–	–
Influenza A	2	4	1	4	2	3	–	16
Influenza B	1	–	–	3	1	–	–	5
Parainfluenza†	10	6	3	5	3	4	–	31
Rhinovirus	3	–	–	–	1	1	–	5
Respiratory syncytial virus (RSV)‡	3	2	–	–	–	2	–	7

*Respiratory samples only.

†includes parainfluenza types 1, 2, 3, 4, and untyped.

‡ Excludes diagnoses made by electron microscopy (EM).

Table 4 Laboratory reports of infections associated with atypical pneumonia, by week of report: weeks 31-34/2006

Week	Week 31	Week 32	Week 33	Week 34	Total
Week ending	06/08/06	13/08/06	20/08/06	27/08/06	
<i>Coxiella burnettii</i>	–	–	2	–	2
Respiratory <i>Chlamydia</i> sp*	–	1	4	2	7
<i>Mycoplasma pneumoniae</i>	7	6	2	5	20
<i>Legionella</i> sp	16	6	8	10	40

*Includes *Chlamydia psittaci*, *Chlamydia pneumoniae*, and *Chlamydia* sp detected from blood, serum, and respiratory specimens.

Table 5a Reports of legionnaires' disease cases in England and Wales, by week of report: weeks 31-34/2006

Week	Week 31	Week 32	Week 33	Week 34	Total
Week ending	06/08/06	13/08/06	20/08/06	27/08/06	
Nosocomial	–	–	2	1	3
Community	6 + (4*)	3	–	4	17
Travel abroad	5	3	3	4	15
Travel UK	1	–	2 +1†	1	5
Total	16	6	8	10	40
Male	12	6	4	6	28
Female	4	–	4	4	12

*Case with onset of symptoms in 2005. † Non-pneumonic case.

Thirty-nine cases were reported with pneumonia and one non-pneumonic case: 28 males aged between 19 and 84 years and 12 females aged between 42 and 78 years. Seventeen cases had community-acquired infection and three cases had a possible nosocomial association. Three deaths were reported in males aged between 74 and 79 years.

Twenty cases were travel associated: United Kingdom 5, Greece 4, Italy 4, Spain 2, and one with each of Cruise-Europe, France and United Kingdom, Germany, Malta, and Thailand.

Table 5b Reports of legionnaires' disease cases by region of report in England and Wales: weeks 31-34/2006

Region	Nosocomial	Community	Travel (Abroad)	Travel (UK)	Total
North East	–	–	–	–	–
Yorkshire & the Humber	–	1	–	1	2
East Midlands	–	2 + (2*)	–	–	4
East of England	–	2	2	–	4
London	–	1	–	3	4
South East	–	3	2	1†	6
South West	–	–	–	–	–
West Midlands	1	2	3	–	6
North West	1	1	7	–	9
Wales	1	1 + (2*)	1	–	5
Total	3	17	15	5	40

*Case with onset of symptoms in 2005. † Non-pneumonic case.

National Standard Methods

Last updated: 1 September 2006, Volume 16, No. 35 Next update: 5 October 2006

Standard Method updates – Monthly content update: September 2006

Standard Method updates`

The development of National Standard Methods and Algorithms is undertaken under the auspices of the Health Protection Agency (HPA) in conjunction with the NHS and the National Public Health Service for Wales (NPHSW), and with professional societies including the Association of Medical Microbiologists, Association of Clinical Microbiologists, Institute of Biomedical Science, Clinical Virology Network, and the Scottish Microbiology Association. Over 200 methods are available from the HPA Standards Unit website which covers bacteriology, virology/serology, food, water, and environmental microbiology.

National standard methods are educational and encourage participating laboratories to retain an enquiring attitude. In addition, they are designed to help ensure that laboratories provide a good clinical and public health microbiology service. Evidence of using standard operating procedures is an essential requirement of accreditation schemes. For more information, please contact the HPA Standards unit, email: <standards@hpa.org.uk>.

National Standard Methods - Virology

- **vsOP 45 Haemadsorption of viruses (issue)**
<http://www.hpa-standardmethods.org.uk/documents/vsop/pdf/vsop45.pdf>

National Standard Methods - Guidance Notes

- **QSOP 38 Good laboratory practice when performing molecular amplification assays (re-issue)**
<http://www.hpa-standardmethods.org.uk/documents/qsop/pdf/qsop38.pdf>
- **QSOP 45 Installation, operation, maintenance & performance testing of the Dynal® BeadRetriever™ (re-issue)**
<http://www.hpa-standardmethods.org.uk/documents/qsop/pdf/qsop45.pdf>

National Standard Methods - Water

- **W 3 Enumeration of *Enterococci* by membrane filtration (re-issue)**
<http://www.hpa-standardmethods.org.uk/documents/water/pdf/W3.pdf>
- **W 12 Detection & Enumeration of *Legionella* species by filtration & centrifugation (re-issue)**
<http://www.hpa-standardmethods.org.uk/documents/water/pdf/W12.pdf>
- **W 13 Detection & Enumeration of *Legionella* species by centrifugation (re-issue)**
<http://www.hpa-standardmethods.org.uk/documents/water/pdf/W13.pdf>
- **W 14 Detection & Enumeration of *Legionella* species by positive pressure membrane filtration (re-issue)**
<http://www.hpa-standardmethods.org.uk/documents/water/pdf/W14.pdf>
- **W 15 Detection & Enumeration of *Legionella* species in biofilms & sediments (re-issue)**
<http://www.hpa-standardmethods.org.uk/documents/water/pdf/W15.pdf>

Access to the National Standard Methods website

The National Standard Methods are available in both PDF and Microsoft Word format, available at <<http://www.hpa-standardmethods.org.uk>>. Only the direct PDF file links are available below, and to access

a complete list of all available standards including access to to the MS Word versions, visit:
<http://www.hpa-standardmethods.org.uk/pdf_sops.asp#Notes>.

On behalf of the Evaluations and Standards Laboratory and the National Working Groups developing SOPs, algorithms, and guidance note.