CDR WEEKLY

Volume 2
Number 15
10 April 1992
ISSN 0144-3186

Communicable Disease Report

Hepatitis A vaccine

A formaldehyde inactivated hepatitis A virus (HAV) vaccine recently received a UK product licence for its use in adults. It is prepared from the HM 175 strain grown in human diploid cells. Two doses (of 1 ml, given intramuscularly and spaced two to four weeks apart) induce seroconversion in over 95% of recipients. Additional doses may be required in those with impaired immune responses, and produce a longer duration of immunity in the normal population. Simultaneous administration of human normal immunoglobulin and hepatitis A vaccine (at different injection sites) does not affect the seroconversion rate although the antibody levels achieved may be reduced. The vaccine appears to be well tolerated. Reported side effects, of which the commonest are soreness, redness and induration around the injection site, have usually been mild and confined to the first few days after vaccination. The vaccine is manufactured by SmithKline Beecham (telephone 0707 325111) and costs £13.60 per dose.

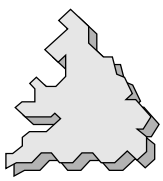
The vaccine is an alternative to human normal immunoglobulin for frequent travellers to areas of high or moderate HAV endemicity or those who stay for more than three months. Vaccination is not required for visitors to Italy, Portugal and Spain but it should be considered for those travelling to Greece, Turkey and countries outside Northern and Western Europe, North America, Australia and New Zealand. Tests for anti-HAV IgG prior to vaccine administration may be worthwhile for those aged fifty years or over, or for individuals who were born and brought up in areas of high or moderate HAV endemicity, or who have a history of jaundice. Travellers for whom hepatitis A vaccine might be indicated but who present for advice less than two weeks before departure may be given a single dose of vaccine plus human normal immunoglobulin, and should complete the course of vaccine on their return.

National surveillance data suggest that sewerage workers in the United Kingdom have an occupational risk of infection and an anti-HAV seroprevalence survey is in progress to investigate this further. There are no data to support the suggestion that other occupational groups are at increased risk, nor is there evidence to suggest that food packagers or food handlers in the United Kingdom have been associated with HAV transmission sufficiently often to justify their vaccination.

Recommendations on the use of hepatitis A vaccine in outbreaks cannot yet be made as data are not available on its effectiveness (with or without human normal immunoglobulin) in post-exposure prophylaxis. Its role in the control of outbreaks is likely to be limited until the vaccine is licensed for use in children aged less than sixteen years.

Q fever in the Isle of Wight

Four cases of Q fever have been diagnosed among men working on a waste disposal unit on the Isle of Wight, and a further five suspected cases await serological confirmation. Most of the men became ill in early March 1992 and all have recovered. Investigations are being conducted into a number of possible sources of the infection and general control measures have been taken at the site in the meantime. Most of those working at the unit were contractors from other parts of the country. The local CCDC, Dr P Bingham (telephone 0983 821388), will be grateful for information about other confirmed or suspected cases that might be associated with this outbreak.



Correspondence to: Editor CDR,
PHLS Communicable Disease Surveillance Centre,
61 Colindale Avenue, London NW9 5EQ
Tel: 0181 200 6868 Fax: 0181 200 7868 Telex: 8953942

PHLS
Public Health Laboratory Service

Respiratory tract infections, England and Wales: laboratory reports, weeks 92/11 – 14

Laboratory reports	Number of reports received 92/11	92/12	92/13	92/14	Total reports 92/11-14	Average for weeks 11–14 (last 5 years)
Adenovirus (excluding EM faeces)	61	70	85	53	269	269 *
Coronavirus	–	6	3	1	10	2
Influenza A	119	84	89	43	335	94
Influenza B	1	3	4	–	8	272
Parainfluenza	5	6	6	5	22	26
RS virus	306	108	73	28	515	546
Rhinovirus	5	16	10	8	39	36

* average for last three years

Comment

Adenovirus (excluding EM faeces and Group F): 34 patients had eye infections, 20 had pneumonia, 17 had bronchiolitis and one had croup.

Influenza A (239 single titres; 61 rising titres; 31 isolates): 101 patients had pneumonia, 8 had bronchiolitis and 1 had croup. F 14y had Guillain-Barré syndrome; F 16y, F 24y, F 29y and F 57y all had meningitis; one patient with suspected meningitis; 2 patients with suspected encephalitis.

Influenza B: 2 patients had pneumonia.

Parainfluenza: type 2, 7; type 3, 13; untyped 2. One patient had pneumonia, 3 had bronchiolitis and 1 had croup.

RS virus: 4 patients had pneumonia, 95 had bronchiolitis and 2 had croup. Two regions reported more than 10% of cases: Trent (236 cases) and West Midlands (56). 54% of cases were aged less than 5 years.

Rhinovirus: one patient had pneumonia and 5 had bronchiolitis.

Laboratory reports	Number of reports received 92/11	92/12	92/13	92/14	Total reports 92/11-14	Average for weeks 11–14 (last 5 years)
Chlamydia psittaci	6	5	6	2	19	37
Coxiella burnetii	–	–	2	–	2	7
Legionella pneumophila	1	2	–	1	4	NA
Mycoplasma pneumoniae	43	51	64	18	176	130

NA Not available

Chlamydia psittaci: eight patients had pneumonia. Six patients had contact with birds: cockatiel 1, pigeons 1, parrots 1, turkeys 1, unspecified 2. One patient had unspecified animal contact and one worked with aborting ewes.

Legionella pneumophila: all four patients were male (age range 14-56 years). Three had pneumonia.

Mycoplasma pneumoniae: 82 patients had pneumonia. Eleven patients had a rash and one had erythema multiforme. Three regions reported more than 10% of cases: NW Thames (35 cases), SE Thames (27) and Oxford (19). 39% of cases were aged less than 20 years.

Mycobacterial infections, England and Wales: laboratory reports, weeks 92/11 – 14

Mycobacterium tuberculosis 95: 61 males, 33 females, 1 sex not stated. Pulmonary infections 67: 46 males (1 HIV-1 antibody positive), 21 females. Twenty-nine patients were sputum positive. Two patients were aged less than 15 years and 17 were aged 65 years or over. M 75y, M 77y and M 79y all died. There was one isolate from a pleural aspirate. Disseminated 3: all female. Two from the Indian subcontinent. Meningitis 1: F 68y (immunocompromised renal transplant patient) died. Lymph nodes 8: 4 males, 4 females. Three from the Indian subcontinent. Genitourinary 2: both male. Bone / joint 6: 4 males, 2 females. Abdomen 1: female. Abscess 3: 2 male, 1 sex not stated. Skin 4: 3 male, 1 female.

M. bovis 1: F 64y (urine).

M. kansasii 8: M 52y, M 58y, M 80y, F 43y, F 63y and F 74y all with pulmonary infection (1 sputum positive). HIV-1 antibody positive male, age not stated (blood). Immunocompromised M 60y with myelodysplasia (abscess).

***Avium intracellulare* group** 20: M 4y, F 2y, F 3y, F 4y and F 6y all with lymphadenopathy; M 27y, M 83y, F 52y, F 61y and F 79y all with pulmonary infection. Ten males aged 26-53 years all HIV-1 antibody positive (9 blood, 1 bone marrow), 3 of whom were haemophiliacs and 2 of whom died.

M. chelonei 1: M 18y with cystic fibrosis and pulmonary infection (sputum smear positive).

M. gordonae 1: HIV-1 antibody positive M 46y with pulmonary infection.

M. marinum 1: M 52y with skin infection.

Mycobacterium sp 1: HIV-1 antibody positive M 35y who died (cerebral).

Bacteraemia and bacterial meningitis, England and Wales: weeks 92/11 – 14

Laboratory reports of blood and CSF isolates of bacteria are grouped into four categories and published in a weekly sequence:

1. Staphylococci and streptococci (excluding anaerobic cocci).
2. Enterobacteriaceae ie, *Citrobacter, Enterobacter, Escherichia coli, Klebsiella, Proteus* and *Salmonella species.*
3. Environmental and anaerobic bacteria ie, *Bacteroides, Clostridia, Acinetobacter, Aeromonas, Pseudomonas, Serratia* and anaerobic cocci.
4. *Neisseria meningitidis, Haemophilus species* and *Listeria monocytogenes.*

This week's CDR contains reports for category 1. Less commonly reported causes of bacteraemia or bacterial meningitis are listed under **Unusual infections**.

Laboratory reports	No. of reports received: blood only	No. of reports received: CSF only or CSF & blood	Age: <1m	Age: ≥65y	Total received	Cumulative total 1992
Staphylococci						
S. aureus	406	1	7	178	407 (5) *	1406
Coagulase negative	205	6	31	41	211	727
Streptococci						
group A	46	1	1	23	47	185
group B	54	5	17	14	59	206
group C & G	37	–	–	23	37	107
enterococci	128	2	11	71	130	429
α- and non-haemolytic	102	–	9	33	102	368
S. pneumoniae	351	36	1	197	387	1571

* methicillin-resistant strains of *Staphylococcus aureus*

Bacteraemia

Staphylococci:

S. aureus: 24 of 85 patients with IV-lines were on haemodialysis. Ten patients had joint prostheses. Twenty-five patients had pneumonia, including F 29y with chickenpox and F 70y with psoriasis who had empyema. Fourteen patients had UTI / GU surgery, including F 68y with pyelonephritis. Three patients had infected vascular grafts. Four women had infection following Caesarean section. M 20d had toxic epidermal necrolysis; M 42y with leukaemia had periorbital cellulitis; M 55y had infection following coronary artery bypass graft (blood and pericardial fluid isolates); M 67y had epidural abscess.

Seven methicillin-resistant strains were reported: E Anglia 1 (nose and skin isolates); NW Thames 3 (2 blood isolates; 1 blood, surgical wound, throat and skin isolates); Wessex 1 (skin isolate); S Western 1 (blood, nose, throat and skin isolates); N Western 1 (blood isolate).

Also reported: F 48y and F 87y (both synovial fluid isolates); 5 patients aged 2-82 years, including child 2y with sickle cell anaemia (all joint isolates).

Coagulase negative: 6 of 110 patients with IV-lines were on haemodialysis. M 67y had joint prosthesis and M 72y had infected vascular graft.

Also reported: F 84y with septic arthritis (joint isolate).

Streptococci:

group A: 9 patients had skin infection. M 38y (an injecting drug user), M 48y and M 70y all had pneumonia. F 1y had tonsillitis. Female infant had otitis media. Pregnant F 33y had premature rupture of membranes; pregnant F 38y, with intra-uterine death, had disseminated intravascular coagulopathy and died.

Also reported: M 5y had septic arthritis (joint isolate); F 30y had gangrene of abdominal wall following Caesarean section (omentum isolate).

group B: 17 neonates. Six patients had skin infection, including four after Caesarean section. F 26y had intra-uterine death. F 70y had septic arthritis and bilateral hypopyon (blood and synovial fluid isolates). M 81y had liver abscess (*Escherichia coli* also isolated from blood).

group C, 9 and **group G**, 28: 11 patients had skin infection, including female, age not stated, on haemodialysis. M 60y had peritonitis (blood and peritoneal isolates). F 26y had infection following Caesarean section (blood and HVS isolates). F 33y had pyelonephritis.

Also reported: F 24y with fractured bone (bone isolate).

enterococci: *S. bovis* 16; *S. durans* 1; *S. faecalis* 58; *S. faecium* 20. Three of 18 patients with IV-lines were on haemodialysis. Premature M 12d with hydrocephalus. Ten patients had biliary tract disease / surgery; 16 patients had UTI / GU surgery.

α- and non-haemolytic: *S. cremoris* 3; *S. milleri* 22; *S. mitis* 24; *S. mutans* 2; *S. salivarius* 4; *S. sanguis* 38. *S. cremoris*, F 1d. *S. milleri*, M 50y had brain abscess (blood and pus isolates); M 61y had pneumonia (blood and pleural fluid isolates); M 71y had lung abscess; M 73y had psoas abscess. *S. sanguis*, male, age not stated, had osteomyelitis (group C *Streptococcus* also isolated from blood). *S. salivarius*, F 48y had infection following ureterolithotomy. Seven patients had biliary tract disease / surgery.

Also reported: *S. milleri*, F 4y had wound infection following dog bite, and F 70y had liver abscess (both pus isolates); F 78y had septic arthritis (joint isolate).

S. pneumoniae: 185 patients had pneumonia, including 12 children aged less than 4 years. Twenty patients were

immunocompromised, including 6 with myeloma, 5 with leukaemia, 5 with lymphoma, 3 with organ transplants and one on chemotherapy. M 1y had periorbital cellulitis; M 1y and F 29y (middle ear isolate also) both had otitis media; M 25y had previous splenectomy; M 66y had pyonephrosis; F 28y had cellulitis of neck.
Also reported: M 53y and F 6y (both peritoneal fluid isolates).

Laboratory reports	Total bacteraemia	Acute bone/joint	Age <15y	Age ≥65y	IV/CVP lines	Pace-makers	Endocarditis (with prostheses)	IVDA (with endocarditis)
Staphylococci								
S. aureus	406	35	3	18	85	9	12 (6)	3 (–)
Coagulase negative	205	1	–	1	110	2	9 (4)	1 (–)
Streptococci								
group A	47	3	–	2	2	–	–	1 (–)
group B	54	1	–	1	–	–	1 (–)	–
group C & G	37	3	–	1	1	–	–	–
enterococci	128	1	–	1	19	1	18 (6)	–
α- and non-haemolytic	102	1	–	–	8	1	23 (5)	–
S. pneumoniae	351	5	1	2	–	–	–	–

Meningitis
Staphylococci:
S. aureus: F 6y with CSF shunt.
Coagulase negative: M 11y, M 40y with endocarditis (blood isolate also), M 74y (with 2 strains) and F 4m all had CSF shunts. F 27y with leukaemia had ventricular catheter.
Streptococci:
group A: M 41y (blood and CSF isolates).
group B: male neonate (blood, CSF, external ear and umbilical isolates); M 2d, M 7d and F 9d (all blood and CSF isolates); F 21d.
S. faecalis: M 49y with CSF shunt (*Escherichia coli* also isolated from CSF).
S. faecium: F 1y with CSF shunt.
S. milleri: F 12y had brain abscess (pus isolate).
S. pneumoniae: 8 patients aged 4 months - 68 years (all CSF isolates). Twenty-eight patients aged 2 days - 85 years (all blood and CSF isolates), including M 11m with otitis media and F 2d whose mother, who had post partum infection, had meningitis with no CSF isolate (blood isolates). Five patients aged 1-68 years had meningitis with no CSF isolate (all blood isolates). F 46y with CSF shunt (blood isolate). Male infant (PM brain isolate).

CCDC conference

A two-day conference for Consultants in Communicable Disease Control will be held on 8-9 June 1992 at the Communicable Disease Surveillance Centre, Colindale. The conference is being organised by the Department of Health in collaboration with the Public Health Medicine Environmental Group and the PHLS, and will cover a range of current issues in communicable disease control. Further information and registration details are available from Andrea Duncan (telephone 071 972 1108, or 071 972 2773; fax 071 972 2922).

Multipoint methods – reading systems and computerisation

A one-day workshop on multipoint methods is to be held on Thursday 18 June at the Central Public Health Laboratory, in conjunction with the British Society for Microbial Technology. The workshop is aimed at those currently employing multipoint methods and considering the use of machine-assisted reading systems and integration with computer systems. Further information is available from Rita Legros, Central Public Health Laboratory, 61 Colindale Avenue, London NW9 5HT (telephone 081 200 4400, ext 3839).

Data are for England and Wales only, unless otherwise stated.
Weekly numbers are provisional and should not be used to indicate trends.