

From the Acting Chief Medical Officer
Dr Elizabeth Mitchell



Department of
**Health, Social Services
and Public Safety**

An Roinn

**Sláinte, Seirbhísí Sóisialta
agus Sábháilteachta Poiblí**

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HSS(MD)17/2006

To:

Director of Regional Cochlear Implant Services
All General Practitioners (for onward distribution to practice staff)
Directors of Public Health, HSS Boards
Consultants in Communicable Disease Control, HSS Boards
Medical Directors, HSS Trusts (*for onward distribution to ENT
Consultants, Audiology Clinics, Paediatricians*)
Directors of Nursing, HSS Boards
Directors of Nursing, HSS Trusts (*for onward distribution to
relevant nurses*)
Directors of Pharmaceutical Services, HSS Boards/Trusts
Community Pharmacists, HSS Boards/Trusts
Regional Epidemiologists, CDSC(NI)

Our Ref: HSS(MD)17/2006
Date: 6th June 2006

Dear Colleague

RISK OF PNEUMOCOCCAL MENINGITIS IN COCHLEAR IMPLANTS PATIENTS – UPDATE TO IMMUNISATION RECOMMENDATIONS

We previously wrote to you in August 2002 (Circular: HSS(MD)23/2002) and September 2004 (HSS(MD)30/2004) informing you that patients with cochlear implants may be at risk from pneumococcal meningitis and we made recommendations in relation to pneumococcal immunisation. The recommendations given in this letter supersede the advice given in the previous guidance.

Background

People with cochlear implants may have an increased risk of contracting bacterial meningitis. Abnormalities of the hearing organs may predispose some profoundly deaf individuals to greater meningitis risk and the presence of stimulation electrodes passing into the cochlea may present a route for the spread of infection which, if left untreated, may lead to bacterial meningitis.

In August 2002, DHSSPS issued Circular HSS(MD)23-02¹ informing clinicians of the potential risk of pneumococcal meningitis in cochlear implants patients. At that time the DHSSPS introduced the recommendation that all existing and prospective cochlear implant patients be given the pneumococcal vaccine.

In 2004, a UK study showed that although the risk of cochlear implant patients contracting bacterial meningitis remained low, the risk among implanted adults was slightly higher than for the general population^{2,3}. A larger study of paediatric cochlear implant patients in the USA indicated an elevated risk in children⁴. These studies therefore indicated that patients fitted with cochlear implants may have an increased risk of contracting bacterial meningitis compared to the general population. The study carried out in the USA also indicated that patients who had cochlear implants with an intracochlear lead positioner had an increased risk of contracting pneumococcal meningitis in the first two years following implantation⁴. In the UK the incidence of infection had not been observed to differ between the available models of cochlear implant. Implants with a positioner are no longer available.

In August 2004, DHSSPS further updated the immunisation recommendations for children aged between two and five years, and this advice was included in HSS(MD)30-2004.

Update

A recent study in the USA⁵ has now shown that the increased risk of developing pneumococcal meningitis persists beyond two years after implantation in cochlear implants that have a lead positioner. However, in the UK it remains the case that no increased risk has been observed between models with or without a lead positioner.

There are plans to further update the national paediatric immunisation recommendations during 2006. For the latest immunisation advice, always refer to 'The Green Book'⁶.

Action

- Ensure that existing and prospective cochlear implant patients have been immunised according to national policy as outlined in 'Immunisation Against Infectious Disease' ('The Green Book')⁶.
- In an ideal situation cochlear implant surgery should be scheduled when patients are fully immunised in line with the recommendations in 'The Green Book'. However it is important that immunisation does not delay cochlear implantation.
- Check for and treat middle ear infection before cochlear implant surgery. Consider the use of prophylactic antibiotics prior to implantation.
- Diagnose and treat middle ear infection promptly in implanted recipients using the appropriate antibiotics.

- Report all occurrences of meningitis in cochlear implants patients to:

Northern Ireland Adverse Incidents Centre (NIAIC)
 Room A7, Health Estates Agency
 Estate Policy Directorate
 Stoney Road
 DUNDONALD BT16 1US

Tel: 028 90 523714
 Fax: 028 90 523900
 E-mail: NIAIC@dhsspsni.gov.uk
 Website: www.dhsspsni.gov.uk/niaic

References

1. DHSSPS Circular – HSS(MD)23-02
2. Cochlear implantation and meningitis in the UK. Report by the MRC Institute of Hearing Research, August 2004, available at www.ihr.mrc.ac.uk/reports.
3. Incidence of meningitis and of death from all causes among users of cochlear implants in the United Kingdom, Summerfield Q et al. J Public Health 2005; 27(1);55-61.
4. Risk of bacterial meningitis in children with cochlear implants. Reefhuis J et al. N Engl J Med 2003; 349:435-45.
5. Bacterial meningitis among children with cochlear implants beyond 24 months after implantation. Biernath KR et al. Pediatrics 2006; 117(2):284-9.
6. 'Immunisation Against Infectious Disease' ('The Green Book') available at <http://www.dh.gov.uk/assetRoot/04/07/29/84/04072984.pdf>

Yours sincerely

Dr E Mitchell
Chief Medical Officer (Acting)

Dr N Morrow
Chief Pharmaceutical Officer

Mr M Bradley
Chief Nursing Officer

cc: General Practitioners Committee (NI) BMA, Chair
 Prescribing Advisers, HSS Boards
 Pharmaceutical Contractors Committee
 Community Practitioners & Health Visitors Association
 Director of Primary Care, DHSSPS
 Northern Ireland Adverse Incidents Centre
 Dr Jill Mairs, Regional Procurement Pharmacist
 Mr Brian Godfrey, Health Estates Agency
 Mrs E Qua, Health Estates Agency

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