

HEPATITIS AND HIV

Issues related to substitute care, foster care, residential care and adoption

Introduction

Over the past decade the clinical situation regarding the management of HIV infection and hepatitis has changed rapidly. Medical advisers to adoption and fostering panels, social workers, general practitioners, foster carers and residential care workers have expressed concern about the conflicting and often confusing advice being given to them about these blood borne diseases. To provide updated guidance for those working with children and families in the area of substitute care, BAAF's Medical Group convened a working party along with experts in HIV and hepatitis to produce this Practice Note.

Advances in the treatment of these conditions means that early identification can improve the outcome for children. It is important for children and their carers that those professionals involved in the management of substitute care arrangements should be fully updated on current best medical practice. The guidance which follows represents current accepted good medical practice. There is no suggestion that children looked after should in any way be treated differently from other children. However, children whose birth parents have high risk factors for blood borne diseases are over represented in the population of children needing substitute care.

These risk factors for birth parents and their children include:

- injecting drug abuse;
- a history of sexually transmitted disease;
- a history of multiple sexual partners, whether heterosexual, homosexual or bisexual;
- having lived in a high risk area of the world for HIV or hepatitis;
- unprotected sexual activity with a partner who is vulnerable to infection through the above risk factors.

It is important for medical advisers and social workers to co-operate in effective interagency working to establish details of the child's background. If risk factors are present, testing can then be arranged if appropriate to optimise the child's chances for early diagnosis and treatment. It is recommended

that wherever possible birth parents should be informed that their child is to be tested, and the reasons for this in terms of benefits for the child's future health explained. This is particularly important when both parent and child are apparently healthy and symptom free.

This practice note includes information on HIV and hepatitis, the spread of infection, testing for the conditions, prevention and current treatment options, and the social implications of infection. *It does not address the issue of consent to testing and treatment which is detailed in separate practice notes 23 Consent to Medical Treatment (England and Wales) and 38 Consent to Medical Treatment for Children in Scotland* (to order visit www.baaf.org.uk).

Hepatitis B

What is Hepatitis B?

Hepatitis B is an infectious disease of the liver caused by a virus. It can lead to an acute and serious illness after an incubation period of between one and six months. People generally recover completely within two to three months, but the illness is often unpleasant, can be serious, very occasionally life-threatening, and can result in liver damage in the longer term. Ninety per cent of adults who are infected make a full recovery and do not go on to become carriers. Ten per cent of infected adults although completely recovered remain infectious carriers for months or years. However, the majority of children, who will have acquired the disease from their mothers will go on to become carriers. These children are at risk of developing serious long-term liver disease, and contribute a reservoir of virus for infection of others.

Hepatitis B is much more common in certain parts of the world than in others; for example, in some countries of Eastern Europe, South East Asia and South America. The possibility of Hepatitis B infection must be borne in mind in intercountry adoption particularly from these countries. It has to be remembered that testing in the country of origin may be sub-optimal. In the UK, studies have shown that

0.1% to 0.6% of the population (1-6 per 1000) carry the virus.

How is Hepatitis B spread?

The Hepatitis B virus is present in the blood and body fluids (such as semen, saliva, urine and faeces) of infected persons. It is spread most readily by:

- intimate personal or sexual contact with an infected person;
- transfer of infected blood or other body fluids into the bloodstream, e.g. by sharing needles whilst injecting drugs, needle stick injuries, puncture wounds from other sharp objects contaminated with infected body fluids, or from human bites;
- extensive or prolonged contact with blood or body fluids on bare skin (especially broken skin), and the eyes or mouth;
- sometimes, new-born babies become infected from their mother around the time of delivery. This is known as vertical transmission. These children can then pass on the virus to other people. Women who are infected can be identified at antenatal clinics, and their infants can be immunised successfully.

Will I know if a child or parent has Hepatitis B?

No. An adult or a child with Hepatitis B can be completely well, so it is important to take precautions at all times to minimise the risk of infection. Only a blood test can establish if a person is infected.

Prevention of Hepatitis B

There is a safe and effective vaccine available against Hepatitis B, given in a course of three, and in the case of infants born to infected mothers, four, injections. After the last injection, a blood test is recommended to confirm that vaccination has been successful.

It is recommended that the following should be offered immunisation against Hepatitis B:

- permanent carers and their immediate family (those in close contact with the child) caring for a Hepatitis B carrier child;
- babies born to mothers with Hepatitis B infection including chronic carriers;
- residential care staff;
- adopters involved in intercountry adoption;
- in some areas it is recommended that anyone sustaining a needlestick injury is immunised;
- all short-term carers should be counselled about the risks of transmission of undiagnosed infection

in children placed with them, especially in an emergency, and offered immunisation.

Antenatal screening for Hepatitis B

The National Screening Committee recommended that screening for Hepatitis B should be offered to all pregnant women. Since 2000, all health authorities should have arrangements in place to implement this policy and to immunise babies born to infected mothers.

In the case of babies born to Hepatitis B infected mothers, only a full course of immunisations will protect a child and it is vital that children who may be fostered or placed for adoption complete their course of immunisations. Doctors, social workers and carers need to remember this when such babies are placed. Failure to complete a course fully because of repeated changes of placement may jeopardise the health of the infant and his or her substitute carers.

Hygiene precautions

The following precautions apply equally to the prevention and spread of Hepatitis B, Hepatitis C, and HIV infection.

The risk of being exposed to infection can be minimised through good hygiene practice. The precautions must be applied when there is a possibility of direct contact with blood or any body fluids from another person. These practices include:

- washing of the skin with soap and water following any contact with blood or body fluids;
- appropriate care of cuts and abrasions by covering them with waterproof dressings;
- avoid sharing items which might be contaminated with blood e.g. toothbrushes and razors;
- use of rubber gloves as appropriate, if there is a risk of mixing body fluids between carer and child, e.g. presence of cuts, eczema;
- prompt clearing up of spillages of blood or other body fluids with freshly diluted bleach and disposable tissues;
- careful disposal of nappies, or any disposable items soiled with blood or body fluids – these should be burned or put out in sealed polythene bags;
- washing of soiled clothing in hot water and detergent in a hot wash cycle;
- cleaning of dishes and cutlery in the usual way with hot water and detergent.

Testing children for Hepatitis B

It is in a child's best interests that their Hepatitis B status is known. Treatment is now available with a

drug called interferon. This can benefit 30–40% of children who are infected. Specialist medical supervision and newer treatments may also improve the outlook. It is therefore important to identify those children who are infected. In addition, immediate family members can be offered immunisation to protect them against infection.

It is recommended that there should be testing for the following children:

- children from high risk families who are to be placed in long-term accommodation;
- children whose mothers are infected;
- children who may have been exposed to Hepatitis B (e.g. sexual abuse, needlestick injury);
- children with clinical symptoms of Hepatitis B such as jaundice.

Testing should also be considered for the following groups of children when alternative care is being considered:

- children from areas of the world with a high prevalence of Hepatitis B;
- children whose parents originate from parts of the world with a high prevalence of Hepatitis B.

If there has been acute exposure, emergency prophylaxis may be offered as detailed below. In this instance reference should be made to local hepatitis guidelines.

The Hepatitis B blood test

Hepatitis B infection can be diagnosed by a simple blood test. The results must be interpreted by a doctor who is knowledgeable about the condition. A positive test can mean a number of things:

- *Chronic infection* – this means the virus is causing long-term low-grade inflammation within the liver;
- *Past infection* – this means the person is immune and has successfully overcome the virus;
- *Carrier* – this means that the person is entirely well, but remains infectious;
- *Acute infection* – this means that the person has just become infected with the virus.

A positive blood test, particularly in a young baby, does not necessarily mean that the child is infected, and *expert advice should be sought in interpretation of the test results.*

Emergency treatment

If there is good reason to suspect that there may have been recent exposure to blood or body fluids infected with Hepatitis B virus, treatment to prevent infection is available, with an injection of immunoglobulin which

contains antibodies to Hepatitis B virus followed, if appropriate, by a course of vaccination. This treatment is safe and effective up to seven days after the incident but ideally should be given within 48 hours of the incident. General practitioners or any hospital accident and emergency service can advise.

Substitute carers with Hepatitis B

A person with a history of Hepatitis B infection may apply to be a carer. As for any potential carer with a significant health problem, a thorough health assessment will be required to determine the stage of the infection and infectiousness of the person. If an infected person is considered suitable as a long term carer for a particular child, the child will need to be tested and if appropriate, immunised. Due to the nature of short-term fostering, it would be impossible to ensure the protection of children placed in an emergency, and therefore it is not felt appropriate for Hepatitis B infected people to do this work. If an applicant is thought to be at high risk of Hepatitis B infection, then consideration should be given to testing as part of the approval process.

Hepatitis C

What is Hepatitis C?

Hepatitis C is an infectious disease of the liver caused by a virus. It was formerly known as non A non B hepatitis. It was only recognised in 1989. Therefore there is less information about the spread and the long-term outcome for children infected with the virus than is the case for Hepatitis B.

Recommendations about testing and treatment may change, in light of further research. Hepatitis C can lead to an acute illness after an incubation period of two weeks to six months. After this acute illness, which can occasionally be life-threatening, long-term liver damage is common in adults.

High risk areas for Hepatitis C include North America, Southern Europe, Egypt and Japan.

How is Hepatitis C spread ?

Hepatitis C is spread in the same way as Hepatitis B, by contact with blood and other body fluids. It has been found most commonly amongst injecting drug users, where estimates of infection rates vary from 60% to 90%. Sexual transmission can also occur. It can also be passed from an infected mother to her baby, probably around the time of delivery. Transmission during pregnancy is relatively uncommon, the risk is less than 5%. However, if the

mother is also infected with HIV infection, risks are greatly increased.

Will I know if a child or parent has Hepatitis C?

No. An adult or a child with Hepatitis C may be completely well, so it is important to take precautions to minimise the risk of infection. Only a blood test can establish if a person is infected.

Testing children for Hepatitis C

It is likely to be in a child's best interests to know their Hepatitis C status because of future developments. Monitoring of liver function is important and early treatment may improve the outlook for the health of those infected. The current treatment is with a drug called interferon, but some people do not respond to this, or may relapse when treatment is stopped. The addition of another drug called ribavirin may help the response rate. Research is continuing into new and more effective treatments.

Testing is carried out by a simple blood test, looking for Hepatitis C antibodies. If positive, this means that the person has been exposed to the virus at some time in the past. This test alone is not reliable as an indicator of Hepatitis C in children under the age of 18 months. At this age a positive test may reflect infection in the mother rather than the child. A further test, called the PCR, detects viral genetic material and, if positive, indicates an active infection regardless of the child's age.

It is recommended that testing should be offered to the following children:

- those from families vulnerable to infection who are being placed in long-term accommodation;
- those arriving from areas of the world with a high prevalence of Hepatitis C;
- children whose mothers are infected, or who are carriers of the virus;
- children who may have been exposed to the virus (e.g. sexual abuse, needlestick injury);
- children with clinical symptoms such as jaundice.

Prevention of Hepatitis C

There is, at present, no vaccination against Hepatitis C. Careful hygiene precautions as described for Hepatitis B (see above) are currently the only way to ensure that the virus does not get passed on from an infected person.

Carers with Hepatitis C

A person with Hepatitis C infection may apply to be a carer. A thorough health assessment is recommended, as with all carers with a significant health problem. The stage of infection must be ascertained to establish if there is active infection. Hepatitis C is not thought to be spread through normal household or social contact, and if clinically well, an infected person may be able to care for a child who is independent in daily activities. Individual advice should be sought in all cases from a doctor with specialist knowledge of hepatitis prior to acceptance as a carer.

Hepatitis A

Hepatitis A should not be confused with Hepatitis B or C, as it is usually acquired in a completely different way. It is an infectious disease which is initially spread by contact with food or water contaminated by faeces, and may subsequently be spread by person to person contact, especially between young children. People do not become carriers of Hepatitis A, and there are no issues specifically relevant to child care.

HIV infection

What is HIV?

HIV stands for the Human Immunodeficiency Virus. It infects the immune system and leads to damage of the body's ability to resist infection. The infected person becomes prone to recurrent infection. When the immune system is seriously compromised, HIV infection can progress to AIDS (Acquired Immune Deficiency Syndrome).

Risk factors for HIV infection:

- adults with a history of needle sharing;
- adults with a history of unprotected sexual activity;
- adults from high risk areas of the world (two areas – sub-Saharan Africa and South and South-East Asia account for 85% of the HIV infection in the world);
- adults having unprotected sexual activity with a partner who is vulnerable to infection through any of the above risk factors.
- Children can acquire the infection from their mothers around the time of birth and through breastfeeding.

How is HIV spread?

HIV is much less infectious than other blood-borne virus infections such as Hepatitis B and C, although it is spread in exactly the same manner.

Will I know if a child has HIV infection?

No. HIV infection in children can present in ways which mimic common childhood conditions, such as swollen glands, recurrent infections, diarrhoea, slow growth and delayed development. The only way to find out if a child has HIV infection is by a blood test.

Most children with HIV infection remain relatively well provided they receive appropriate medical supervision and treatment, which typically allows them to lead full and active lives in their local communities and schools.

Prevention of HIV infection

At present, there is no cure for HIV infection, but combination therapy with anti-retroviral drugs is radically altering the outlook for infected adults and children. A safe vaccine against HIV infection has not yet been developed. The only way to minimise risk of transmission is by observing good hygiene practice as described previously for Hepatitis B (see above). It is now known that HIV transmission from mother to child can be reduced from 20–25% to less than 5% if the mother's HIV status is known during pregnancy and the pregnancy is appropriately managed by a specialist centre. For this reason the Intercollegiate Working Party has recommended universal testing of pregnant women for HIV as a routine and integral part of antenatal care throughout the UK.

Testing for HIV infection

It is in a child's best interests that the HIV status is known. Medical care improves the health, the development and the long-term survival of children with HIV infection. It is therefore important that the condition is diagnosed as soon as possible. Although treatment is not curative, combination anti-retroviral therapy, using two or more drugs, improves the health of children considerably. Treatment will also prevent life-threatening infections, and optimise the child's growth.

The only way to tell if a person is infected is by doing a blood test. In adults and older children, a simple

blood test will detect HIV antibody. A positive result means that the person has been infected with the virus. It must however be remembered that after infection the body can take up to three months to produce antibodies to HIV, and therefore to produce a positive result. If the first antibody test is negative, there is a possibility that seroconversion has yet to occur and a repeat test should be offered three months later.

The antibody test is not reliable in young children. Most children who have HIV infection have acquired the infection from their mothers when during pregnancy, the mother's HIV antibodies have crossed into the child's bloodstream. For this reason a positive HIV antibody test in a young child, during the first 18 months of life, gives no indication of whether the child is infected. More sophisticated tests can be done on a blood sample, such as the PCR test, which detects the genetic material of HIV. PCR tests are extremely useful in excluding HIV infection in children as young as three months of age. Expert advice on interpreting HIV/PCR results is essential.

Who should be tested for HIV?

It is recommended that testing be offered to the following children:

- those from families who are vulnerable to infection through any of the risk factors;
- children whose mothers are infected with the virus;
- children who may have been exposed to HIV (e.g. sexual abuse, needlestick injury);
- children with clinical symptoms suggestive of HIV infection, such as swollen glands, recurrent infection, diarrhoea, slow growth.

Emergency treatment

Emergency advice may occasionally be required, for example, for teenagers involved in risk taking behaviour, or for younger children following an episode of sexual abuse, or following a needlestick injury. If a child is seen immediately after an episode of exposure to possible HIV infection, health professionals may consider that emergency preventive treatment should be offered, without waiting for blood test results. This will depend upon the circumstances of the incident.

The risk of transmission following exposure to HIV infected blood is very small (around 0.3%). There is

no risk unless the skin is broken, or mucous membranes breached, when blood or infected body fluids from the infected person could pass into the bloodstream of the injured person. Simple first aid measures such as encouraging more bleeding and thorough washing of the wound with plenty of soap and water will minimise this risk. Combination anti-retroviral therapy may, in certain circumstances, be considered to reduce this risk further, but must be started as soon as possible (ideally within an hour of the injury). There are toxicity problems with these drugs, so the local casualty department, infectious diseases department or HIV specialist will balance up the degree of risk of infection with the potential risks of treatment.

Social considerations

A diagnosis of HIV infection or AIDS carries considerable social stigma. This leads to families withholding the diagnosis from professionals, and professionals withholding information from one another. Children with HIV infection are entitled to the same degree of confidentiality as all other children. Information about the child's illness should only be divulged in the best interest of the child, with the consent of parents (and child, if appropriate), and only shared with those who need to know.

Testing a child may leave professionals in the difficult position of having to tell a symptomless birth mother that she has a life-threatening disease. For this reason, the informed consent of the child's birth parents must be actively sought in all cases.

It must be borne in mind that many children who are not infected with HIV, could live in families where parents or siblings are infected. These children may have experienced multiple bereavement, and will require sensitive expert support and counselling.

Prospective carers with HIV infection

People with HIV can be considered as carers for children. However, they would require a thorough health assessment, in the same way as any other carer with a significant illness. Normal household or social contact does not transmit HIV and, if clinically well, a person with HIV infection could care for a child who is independent in daily activities. Consideration should be given to the likely limited life expectancy of the carer, and the effect of further loss and bereavement on the child.

Placement of children with HIV infection

Families who wish to adopt or foster a child with HIV infection need to be assessed in exactly the same way as any family who is prepared to look after a child with a long-term life-limiting condition. The child's health needs will have to be discussed, together with the implications of deteriorating health, possible developmental regression, and end of life care. Possible reactions from family members, friends, schools and the community should be addressed before placement.

It may be possible to place another child in a family which is already looking after a child with HIV infection. Stringent hygiene measures must be emphasised. Each case must be considered individually, taking into account the age, health and needs of both children.

Sources of further information

The Terence Higgins Trust – Helpline

Open seven days a week from 10.00am to 10.00pm
Tel: 0845 1221 200

The National AIDS Trust

New City Cloisters
196 Old Street
London EC1V 9FR
Tel: 020 7814 6767

Consultation Guidance on Children in Need and Blood Borne Viruses: HIV and Hepatitis

(Department of Health, 2002)

Children and HIV

Guidance for Looked After Children and Voluntary Organisations (The Scottish Office)

Children with AIDS Charity

Lion House
3 Plough Yard
London EC2A 3LP
Tel: 020 7247 9115

Children's Liver Disease Foundation

(Education, Research & Support)

36 Great Charles Street

Queensway

Birmingham B3 3JY

Tel: 0121 212 3839

British Liver Trust

Portman House

44 High Street

Ringwood BH24 1AG

Tel: 01425 463080

Medical Foundation for AIDS and Sexual Health

BMA House

Tavistock Square

London WC1H 9JP

Tel: 020 7383 6345

The Royal Society of Medicine Press Limited

1 Wimpole Street

London W1G 0AE

Tel: 020 7290 2921

Health Protection Agency

Floor 11, The Adelphi Building

John Adam Street

The Strand

London WC2N 6HT

Tel: 020 7339 1300

Scottish Centre for Infection and**Environmental Health**

Clifton House

Clifton Place

Glasgow G3 7LN

Tel: 0141 300 1100

HIV/AIDS officers/workers in your local social services/social work department and health trusts – contact details will be listed in your telephone directory.

Publications

Department of Health, Welsh Office, Scottish Office
Department of Health, DHSS (Northern Ireland),
Immunisation against Infectious Disease, Salisbury
D.M. and Begg N.T. (eds), HMSO, 1996,
ISBN 0 11 321815 X.

*Bloodborne Viruses and Infection Control: A guide for
healthcare professionals*, Morgan D, Darrell M and
Davies L (eds), BMA, 1998, ISBN 9 0570 24055.

BMA's CD-ROM, *Blood borne viruses and infection
control*, BMA, 1998.

Provides a general introduction to the main
bloodborne viral hazards and includes information on
universal precautions, emergency advice following
sharp injury and post exposure prophylaxis for all
health care students and professional staff. This can
be ordered from the BMJ Bookshop on 020 7383
6244 or www.bmjbookshop.com, £190.00 plus VAT
for a site licence.

Members of the Working Party

BAAF Guidelines for the Management of Bloodborne Diseases

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