



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

An Roinn

**Sláinte, Seirbhísí Sóisialta
agus Sábháilteachta Poiblí**

www.dhsspsni.gov.uk

ACTION PLAN

**FOR THE PREVENTION,
MANAGEMENT AND CONTROL OF**

HEPATITIS C

IN NORTHERN IRELAND

January 2007

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1. SUMMARY OF PLAN'S ACTION POINTS

- 1.1 The actions set out below form the core of a plan to address hepatitis C in Northern Ireland. The responsibilities of the key organisations involved in its implementation are also described. It will be important for all involved to take this work forward in the context of wider work on blood borne viruses. Where Health and Social Services (HSS) Boards and Trusts are involved, responsibility for implementation will pass to whatever successor body or bodies emerge in the reconfiguration consequent on the Review of Public Administration.

PREVENTION

Increasing awareness and understanding

Action 1: The Health Promotion Agency (HPANI) in conjunction with hepatologists and other key stakeholders will develop public information materials on hepatitis C infection. (5.2.2)

LEAD: HPANI by February 2007

Action 2: An information leaflet will be developed and disseminated to health and social care professionals to enable them to

- (i) recognise the risk factors for, and symptoms of, hepatitis C infection;
- (ii) have an informed discussion with patients about hepatitis C;
- (iii) offer testing for hepatitis C to those at risk; and
- (iv) appropriately refer those with hepatitis C infection for specialist assessment and management.

Education and training in support of this action will be part of the role of the Managed Clinical Network (MCN). (5.2.3)

LEAD: HPANI by February 2007

Action 3: The Regional Virus Laboratory when communicating positive test results to clinicians will provide an information leaflet outlining the salient points surrounding the clinical significance of hepatitis C infection. (5.2.4)

LEAD: Regional Virus Laboratory by February 2007

Injecting drug users (IDUs)

Action 4: Injecting drug use is the leading risk behaviour for transmission of hepatitis C. Many IDUs are unaware that sharing injecting equipment including needles, syringes or spoons puts them at risk. Hepatitis C transmission is preventable. In relation to IDUs the priority areas for action include:

- (a) Raising awareness of risk behaviours amongst IDUs through the development of an information leaflet for them on blood borne viruses including hepatitis C;
- (b) Training, information and guidance on blood borne viruses for professionals including health care workers and those in the voluntary sector who work with drug users to raise awareness of diseases carried by blood and other measures to control infection;
- (c) The development of local multi-agency arrangements for hepatitis C prevention which are fully integrated into the MCN. This is to be carried out in co-operation with Community Addiction Teams and will link into other related areas such as sexual health;
- (d) Further development of needle and syringe exchange schemes in light of a review actioned for 2006/07 and the results of the pilot outreach scheme. (5.2.7)

LEAD: Alcohol and Drugs Policy Branch by February 2008

Health care settings

Action 5: DHSSPS will issue guidance on the management of hepatitis C infected health care workers and further guidance on health clearance for health care workers regarding tuberculosis, hepatitis B, hepatitis C and HIV. (5.2.10)

LEAD: DHSSPS Health Protection Team and Human Resources Directorate by July 2007

Action 6: All Trusts should ensure that local guidelines on the prevention of blood borne viruses and policies on the management of blood exposure incidents are reviewed to take account of recent guidance. All staff should be familiar with the risk factors for transmission of hepatitis C infection in health care settings, and the measures necessary to prevent them. Trusts should also ensure that all staff know their obligation to make occupational health departments aware if they have had a risk factor for exposure to hepatitis C or have acquired hepatitis C infection. (5.2.11 to 5.2.13)

LEAD: Trusts by August 2007

Cosmetic Piercing

Action 7: DHSSPS has published guidance on the regulation of cosmetic piercing and skin colouring businesses, enforceable through bye-laws which district councils are encouraged to pass and submit to DHSSPS for approval. (5.2.14)

LEAD: District Councils

Prisons

Action 8: In light of the results and recommendations in the recent prison survey on hepatitis C, hepatitis B and HIV, the Northern Ireland Prison Service will consider its policy on the prevention and control of blood borne viruses, and its service provision for prisoners already infected with hepatitis C, liaising as necessary with DHSSPS, HSS Boards and Trusts, and CDSC in formulating any policy changes. (5.2.15)

LEAD: Director of Health and Healthcare in the Northern Ireland Prison Service by August 2007

CLINICAL SERVICES

Action 9: HSS Boards and Trusts are required to take account of DHSSPS-endorsed NICE guidance on the treatment of people with chronic hepatitis C, within clinical priorities and available resources. (5.3.4)

LEAD: HSS Boards and Trusts by August 2007

Action 10: In line with the case already made by the Royal Hospitals Trust a second specialist nurse should be appointed to work in the hepatology service. (5.3.5)

LEAD: EHSSB with other HSS Boards and the Royal Hospitals Trust by June 2007

MANAGED CLINICAL NETWORK (MCN)

Action 11: The EHSSB will facilitate the development and running of an MCN for hepatitis C in conjunction with Trusts. (5.4.1 to 5.4.5)

LEAD: EHSSB with other HSS Boards and Trusts by December 2007

INFORMATION AND RESEARCH

Action 12: The MCN should review surveillance arrangements for hepatitis and take forward action in any areas which need strengthened in conjunction with CDSC. (5.5.1)

LEAD: MCN by March 2008

MAKING IT HAPPEN

Action 13: To support the work of the MCN, HSS Boards will designate a senior Board officer as a blood borne virus co-ordinator who will be responsible for assisting the EHSSB in developing the network, for supporting and evaluating the action plan and reporting the progress being made in its implementation. (6.1)

LEAD: HSS Boards and Trusts by March 2007

Action 14: DHSSPS will monitor progress on the implementation of the action plan at six monthly intervals and evaluate its effectiveness on its conclusion. (6.2)

LEAD: DHSSPS by May 2008

2. BACKGROUND TO HEPATITIS C IN NORTHERN IRELAND

Significance of hepatitis C in Northern Ireland

- 2.1 The hepatitis C virus (HCV) was first identified in 1989. It can cause liver disease, including cirrhosis. In some people, infection will lead to liver failure or liver cancer. The growing importance of hepatitis C as a public health issue has necessitated a coherent local response in the form of this action plan.
- 2.2 The significance of the problem hepatitis C represents for Northern Ireland is exemplified by the fact that in the short term (five to ten years), illness and death due to hepatitis C will increase as infections acquired many years ago will show themselves. Chronic hepatitis C can produce symptoms such as fatigue, nausea, weight loss and pain. The disease progresses slowly, generally over 20 to 50 years, but some people will develop cirrhosis of the liver which can cause more severe symptoms.
- 2.3 In Northern Ireland it is likely that only about a quarter of individuals who are infected with hepatitis C are aware of it. Those who are undiagnosed will not realise that there are steps they should take to prevent further spread of the virus and that they could potentially benefit from treatment. More detailed background information on hepatitis C, its transmission and prevalence is provided in the Annex.
- 2.4 In the absence of a vaccine, the focus must be on the prevention of infection and successful treatment of those already infected so that the potential for spread is minimised. Through this plan, the Department aims to achieve a reduction in the prevalence of hepatitis C in Northern Ireland while ensuring that people with the infection are identified and receive high quality, evidence-based treatment.

Consultation responses

- 2.5 DHSSPS published its *Strategic Framework and Action Plan for the Prevention and Control of Hepatitis C in Northern Ireland* in July 2004. Over a thousand copies were printed and widely distributed while the text was made available on the Department's website. Some 20 responses were received from a range of organisations within and without the health service and from individual professionals working in the field. Broad support was expressed for the plan although some concerns were expressed, in particular, on making hepatitis C a notifiable disease. This action plan which is a distilled and practical version of the earlier document reflects those responses as well as ongoing work since publication and other developments including the *Hepatitis C Action Plan for Scotland* published in September 2006.

Hepatitis C – a notifiable disease?

- 2.6 A number of those who responded to the consultation expressed concerns about the confidentiality and human rights aspects of making hepatitis C a notifiable disease. In the July 2004 consultation document, it was proposed to add hepatitis C to the list of notifiable diseases in the Public Health Notifiable Diseases Order (Northern Ireland) 1990.
- 2.7 The Department has decided that in these circumstances it will not adjust the hepatitis nomenclature in the 1990 Order. However, high quality surveillance arrangements are required to profile the epidemiology of hepatitis C infection, inform prevention and control activities, and service provision. The Department will keep the matter under review and will wish to be assured that the new arrangements work satisfactorily.

3. DEVELOPMENTS SINCE PUBLICATION OF THE STRATEGIC FRAMEWORK AND ACTION PLAN

Cosmetic Piercing

3.1 Under the 1985 Local Government (Miscellaneous Provisions) (Northern Ireland) Order, district councils have been able to register and regulate acupuncture, tattooing, ear piercing and electrolysis businesses with bye-laws relating to the cleanliness and hygiene of premises, their practitioners and equipment. The increasingly popular techniques of cosmetic piercing and semi-permanent skin-colouring which carry a potential risk of blood borne virus transmission if infection control procedures are not observed were not covered in that Order. With the amendment of the 1985 Order by the Local Government (Northern Ireland) Order 2005, councils have now been given registration and regulatory powers over businesses offering such services. The new Order, which took effect in November 2005, covers cosmetic piercing (piercing of the body including ear piercing) and semi-permanent skin-colouring (including micropigmentation, semi-permanent make-up and temporary tattooing). Guidance on the regulation of such businesses was issued that month to stakeholders by DHSSPS which is also responsible for approving any related bye-laws made by district councils.

Prisons

3.2 Prisoners have been shown elsewhere to be a high risk group for the transmission of blood borne viruses. In a study of prevalence of blood borne viruses in prisoners in England, 29% of women, 24% of men and 4% of young offenders were shown to have injected drugs at some stage in their life. The prevalence of antibody to hepatitis C infection was 10% in both men and women and 0.6% in young offenders. A prevalence survey of blood borne viruses among prisoners in the Republic of Ireland concluded that infection with hepatitis C, secondary to use of injected drugs, is endemic in Irish prisons; the overall prevalence rate for hepatitis C was 37% while amongst IDUs it rose to 81%. A similar survey carried out with committal (entrant) prisoners in the Republic of Ireland found evidence that prisoners were acquiring blood borne virus infection in prisons.

3.3 A survey was recently undertaken in Northern Ireland prisons. It indicated that the prevalence of hepatitis C infection among prisoners here is considerably lower than in prisons in the rest of the UK and the Republic of Ireland.

3.4 The prison survey's key findings were that:

- The prevalence of all blood borne virus infections in the Northern Ireland prison population was low, with five prisoners (0.6 %) testing positive for HBV, seven (1.1%) for HCV and none (0 %) for HIV.
- The prevalence of infection with HCV was higher in IDUs (2.8%) and in remand prisoners (2%), whereas HBV infection was more common in IDUs (2.8%) and in those who spent more than 3 years in prison in the last 10 years (1.9%).

- A considerable percentage of those who tested positive for HBV and HCV (80% and 71% respectively) were unaware of their infection.
 - Just over one in ten prisoners (11%; 71/663) reported ever having injected drugs, 12% (8/65) of whom reported sharing needles or syringes in prison. One fifth (14/70) first injected drugs while in prison.
- 3.5 The survey results will be used to inform future prison policy on the prevention and control of blood borne viruses, and the provision of services for prisoners already infected.

Second consultant hepatologist appointment

- 3.6 In 2004, the Royal Hospitals Trust (RHT) extended its clinical hepatology services with the appointment of a second consultant hepatologist and a specialist nurse, the first in Northern Ireland. The expansion of the Trust's unit has resulted in a significant improvement in the regional hepatology service. Expanding the service and additional funding for the most up-to-date drug treatment has positively impacted on the treatment of chronic hepatitis C in Northern Ireland. Joint management of haemophilia patients has also been initiated with haematologists at Belfast City Hospital.

Nurse-led clinics

- 3.7 Nurse-led clinics (with supervision by consultant hepatologists) promote the safe and efficient administration of treatments for patients with hepatitis C. Individual patient monitoring and assessment by a specialist nurse enables patients to obtain the best possible outcomes from hepatitis C treatment and to minimise any complications. By providing support and education to the patients and their carers, the hepatology nurse helps establish continuity and a compliance with the patient for the duration of their treatment. This nurse also has an educational role to play among fellow health care professionals. In developing these partnerships, the nurse promotes the continuity of patient care between hospital and community and therefore enhances the care delivered to the patient between hospital and home. The Trust has made the case for the appointment of a second specialist nurse in the hepatology service who would support the MCN. (see 5.3.5).

New Strategic Direction for Alcohol and Drugs

- 3.8 Following a review of the previous drug and alcohol strategies, and the Joint Implementation Model, a *New Strategic Direction for Alcohol and Drugs* (NSDAD) has been developed. This has involved extensive consultation across Northern Ireland with the statutory and non-statutory sectors. It has developed a set of values and principles concerning issues such as equity, stakeholder involvement, partnership, good practice and inclusivity, and is currently proposing that one of its five supporting pillars should be harm reduction. In this respect it has developed a number of outcomes concerning blood borne viruses, addressing such issues as needle and syringe exchange, substitute prescribing, outreach work and service user involvement. The NSDAD was launched in May 2006, with full implementation beginning in October 2006.

4. PURPOSE OF THE ACTION PLAN

Context

4.1 This action plan is intended to cover the period 2006-08 and has been developed in the context of:

- A rise in the number of those diagnosed with hepatitis C infection in Northern Ireland.
- An increase in the levels of injecting drug use in Northern Ireland.
- An identified need for more public and professional information about hepatitis C infection.
- The absence of clear regional clinical pathways for the management of patients with hepatitis C infection.
- An acknowledged need for preventative action.
- The cross-sectoral approach to improving the health of the Northern Ireland population as set out in the public health strategy Investing for Health and DHSSPS's 20-year regional strategy *A Healthier Future*.
- The development in 2006 of the *New Strategic Direction for Alcohol and Drugs* in Northern Ireland provides an opportunity to bring a new focus to the information and support needs of a specific population group with a higher potential risk of becoming infected with hepatitis C.

Pillars

4.2 The pillars of hepatitis C infection control are:

- Blood safety. (Significant developments over the past decade in relation to blood donation have now virtually eliminated blood as a source of hepatitis C infection in Northern Ireland.)
- Increased awareness by health care professionals.
- Reducing the harm caused by injecting drug use and prevention of sharing of injecting equipment among IDUs.
- Strict implementation of infection control measures in health care settings.
- Targeted testing of those with known risk behaviours.
- Treatment of chronic hepatitis C infection with appropriate therapy.

Principles

4.3 The core principles underpinning the action plan are:

- Prevention of hepatitis C infection as a public health priority.
- Partnership working at all levels including service users and IDU groups or their advocates.
- Quality, patient-focused services for diagnosis, treatment and care, irrespective of how infection is acquired, or race, religion, gender or sexual orientation.

Aims

4.4 The twin aims of the hepatitis C action plan are:

- To achieve a reduction in the transmission of hepatitis C in Northern Ireland.
- To ensure that people with hepatitis C infection are identified and receive high quality, evidence-based, patient-focused treatment and care.

Priorities

4.5 The priority areas identified for this action plan are:

1. Prevention
2. Clinical services
3. Information and research

The objectives for each of these areas are as follows:

1. Prevention

- (a) To promote greater awareness of hepatitis C and of the risk factors associated with its transmission.
- (b) To provide information and advice for those groups engaging in at-risk behaviours about measures to reduce transmission of infection.
- (c) To increase awareness of hepatitis C amongst health care workers and to enhance measures to reduce its transmission in health care settings.
- (d) To ensure that infected health care workers do not pose a risk to patients and are appropriately identified and offered treatment.

2. Clinical services

- (a) To ensure testing for hepatitis C infection is offered to all individuals who have been at risk of acquiring infection to aid early diagnosis. To make pre-test discussion available to all individuals offered testing to enable them to make an informed decision about consent to the test. Post-test counselling to be available for those where tests confirm current or past infection with hepatitis C.
- (b) To ensure all individuals with hepatitis C have access to up-to-date, accurate and evidence-based information and advice about their condition.
- (c) To optimise the assessment and treatment of individuals with hepatitis C by using evidence-based guidelines such as those produced by NICE.
- (d) To provide comprehensive services, including support services, for people with newly acquired or established hepatitis C. The latter should include provision of a service for follow-up of cirrhosis and end stage liver disease related to HCV, including a hepatoma surveillance/treatment programme and access to a liver transplant assessment programme.

3. Information and Research

- (a) High quality surveillance arrangements are required to profile the epidemiology of hepatitis C infection.
- (b) These arrangements should be used to inform prevention programmes, plan treatment and other services, and to make the case for additional resources if appropriate.

5. ACTIONS

5.1 To address the public health threat posed by the rising level of hepatitis C infection in Northern Ireland, action is required in the areas of:

- Prevention
- Clinical services; and
- Information and research

5.2 PREVENTION

Increasing awareness about hepatitis C

5.2.1 It is likely that a significant number of people in Northern Ireland have undetected hepatitis C infection. This may be due to a number of factors including a lack of awareness among both the public and health professionals, or reluctance among those at risk to come forward for testing. Testing is valuable as those who are positive may benefit from specialist medical interventions.

General public

5.2.2 Increasing awareness aims to minimise transmission through greater knowledge and, by reaching the unidentified cases, to encourage them to come forward for testing. Public information materials including a widely distributed leaflet should be developed in conjunction with the consultant hepatologists and other key stakeholders. Access to the UK Hepatitis C Information Line (Tel 0800 451451 or textphone 0800 0850859) should be signposted. (See also the Department of Health's website <http://www.hepc.nhs.uk/index.asp>.)

ACTION 1: The Health Promotion Agency (HPANI) in conjunction with hepatologists and other key stakeholders will develop public information materials answering questions on hepatitis C infection. (5.2.2)

LEAD: HPANI by February 2007

Health professionals and hepatitis C

5.2.3 The first point of contact with the health service for most people is usually the general practitioner (GP). It is important therefore that all GPs and primary health care staff are aware of the risk factors, symptoms and signs of hepatitis C infection. They also need to know who to test for hepatitis C infection and about specialist referral of people with confirmed infection. Similarly, people may present in other settings such as drug treatment centres, at GUM, hepatology/gastroenterology or infectious disease clinics, renal units and prison medical services. Those whose clinical work involves regular contact with individuals at significant risk of acquiring hepatitis C are well aware of the issues. However there is a need for greater awareness amongst other clinicians and health care workers. To meet this need HPANI, in conjunction with

the relevant experts, should also produce information materials for other health care workers, to ensure referral and treatment as rapidly as possible for the infected person. These materials should also be supported by education and training events for GPs and other health care professionals. The consultant hepatologists and others from the proposed MCN (see 5.4) should be involved in developing and providing these events.

ACTION 2: An information leaflet will be developed and disseminated to health and social care professionals to enable them to:

- (i) recognise the risk factors for, and symptoms of hepatitis C infection;
- (ii) have an informed discussion with patients about hepatitis C;
- (iii) offer testing for hepatitis C to those at risk; and
- (iv) appropriately refer those with hepatitis C infection for specialist assessment and management.

Education and training in support of this action will be part of the role of the MCN. (5.2.3)

LEAD: HPANI by February 2007

5.2.4 A short information leaflet about hepatitis C should be provided by the Regional Virology Laboratory (RVL) when they issue positive test results to GPs. The information should include details on:

- A hepatitis C results report and who to contact for additional explanation of the results
- Further PCR tests
- Treatment for hepatitis C
- Patient information.

ACTION 3: The Regional Virus Laboratory when communicating positive test results to clinicians will provide an information leaflet outlining the salient points surrounding the clinical significance of hepatitis C infection. (5.2.4)

LEAD: Regional Virus Laboratory by February 2007

Injecting Drug Users (IDUs)

5.2.5 There are a range of preventative measures that can impact on the level of hepatitis C infection in injecting drug users (IDUs). Most of these target the number of IDUs and the levels of equipment sharing. Some interventions have the primary aim of preventing or reducing blood borne viruses, including hepatitis C virus transmission. Other interventions, such as substitute prescribing, have prevention or reduction of transmission as one of a range of desired outcomes.

5.2.6 Prevention approaches can be designed to reduce the number of injectors in a population by:

- ensuring access to effective drug treatment;
- preventing initiation into injecting.

Prevention approaches can also be designed to reduce the sharing of injecting equipment by:

- ensuring access to needle and syringe exchange facilities;
- ensuring access to sufficient numbers of needles and syringes; and
- providing wider injecting paraphernalia (e.g. citric acid, water, filters and spoons).

Prevention approaches can also aim to improve knowledge of hepatitis C and the risk factors by:

- Providing education and training to injectors, (especially new and young injectors who may not yet be infected) and young people at risk of injecting drugs (especially marginalised young people), to encourage them to change their injecting behaviour.
- Developing new ways of getting the message through to drug users such as peer education, outreach schemes, information campaigns, and training of health care workers.

A strategy to prevent the spread of HCV needs a combination of interventions to be effective.

Alcohol and Drugs Policy Branch (ADPB)

5.2.7 A number of initiatives have already been developed by ADPB which will have an impact on the prevention of blood borne virus transmission among IDUs. These include:

- the introduction of a free needle and syringe exchange scheme in a small number of community pharmacies from 2002 and the development of a small-scale pilot outreach scheme.
- the first UK statutory-based service provision of the full range of permitted paraphernalia (such as spoons, citric acid and filters) following amendment in 2004 to the Misuse of Drugs Act.
- The introduction of substitute prescribing services across Northern Ireland.

ACTION 4: Injecting drug use is the leading risk behaviour for transmission of hepatitis C. Many IDUs are unaware that sharing injecting equipment including needles, syringes or spoons puts them at risk. Hepatitis C transmission is preventable. In relation to IDUs the priority areas for action include:

- (a) Raising awareness of risk behaviours amongst IDUs through the development of an information leaflet for them on blood borne viruses including hepatitis C;
- (b) Training, information and guidance on blood borne viruses for professionals including health care workers and those in the voluntary sector who work with drug users to raise awareness of diseases carried by blood and other measures to control infection;
- (c) The development of local multi-agency arrangements for hepatitis C prevention which are fully integrated into the MCN (see 5.4). This is to be carried out in co-operation with Community Addiction Teams and will link into other related areas such as sexual health;
- (d) Further development of needle and syringe exchange schemes in light of a review actioned for 2006/07 and the results of the pilot outreach scheme. (5.2.7)

LEAD: DHSSPS (Alcohol and Drugs Policy Branch) by February 2008

Prevention in health care settings

Blood safety

5.2.8 Comprehensive measures are already in place to ensure that the risk of transmission of hepatitis C infection from blood, blood products, or organs and tissues for transplantation is extremely low.

Infection control precautions

5.2.9 Strict adherence to rigorous standard infection control precautions is the key control measure in the prevention of all blood borne viruses, including hepatitis C, in clinical settings. The standard infection control measures which all Trusts in Northern Ireland have in place include those which address the prevention of blood borne viruses. Policies are also in place to address safe handling and disposal of sharps, decontamination, sterilisation of instruments and guidelines for the prevention and control of blood borne virus infections in renal dialysis units.

Health care workers infected with hepatitis C

5.2.10 Following the recommendation of the Advisory Committee on Hepatitis, the Department of Health in England issued guidance on the management of hepatitis C infected health care workers and on the health clearance requirements for hepatitis C for health care workers commencing professional training for a career involving exposure prone procedures (see www.dh.gov.uk/assetRoot/04/01/22/17/04012217.pdf.) DHSSPS has now developed similar guidance and this will issue shortly.

A Northern Ireland consultation document entitled *Health Clearance for Healthcare Workers for Serious Communicable Diseases* (at www.dhsspsni.gov.uk/publications/2003/healthclear.pdf) was issued in March 2003. Such clearance guidance is being further developed on serious communicable diseases (i.e. TB, HIV, hepatitis B, hepatitis C) in the context of health care workers and will be issued in due course by DHSSPS.

Regarding hepatitis C in particular, this will include guidance that:

- All new health care workers should be offered testing for hepatitis C but not be compulsorily tested.
- New health care workers who perform exposure prone procedures (EPPs), or current health care workers new to performing EPPs, should undergo checks to demonstrate they are non-infectious for hepatitis C.

ACTION 5: DHSSPS will issue guidance on the management of hepatitis C infected health care workers and further guidance on health clearance for health care workers regarding tuberculosis, hepatitis B, hepatitis C and HIV. (5.2.10)

**LEAD: DHSSPS (Health Protection Team and Human Resources Directorate)
by July 2007**

Occupational exposure and needlestick injuries

5.2.11 Due to the nature of their work, certain staff working in the HPSS remain at risk of exposure to the blood of people infected with hepatitis C. Existing evidence suggests that the risk of transmission from a single exposure from a hepatitis C antibody positive source is probably between 1.2% and 3%. The Infection Control Standard requires that Trusts have a managed environment which minimises the risk of infection, to patients, staff and visitors.

5.2.12 All Trusts are required to have guidelines for the protection of health care workers from blood borne viruses. These include measures to reduce the risk of needlestick injury, arrangements for immunisation, decontamination procedures, staff training in the safe handling and disposal of sharps and policies for the management of blood exposure incidents. All health care workers must report occupational exposures to blood to their occupational health departments in order that they may be followed up appropriately. Any exposed health care worker who acquires hepatitis C infection during this follow-up should be referred for specialist advice.

Legal requirements

5.2.13 All employers have duties under the Health and Safety at Work Order (Northern Ireland) 1978. With regard to the control of risk to biological agents, the relevant legislation is the Control of Substances Hazardous to Health Regulations (Northern Ireland) 2003 (COSHH). The Advisory Committee on Dangerous Pathogens and the Health and Safety Executive in Great Britain have recently published guidance on the application of COSHH to biological agents entitled *Biological agents: Managing the risks in laboratories and health care premises*. Occupationally-acquired

hepatitis C and needlestick injuries which involve a patient positive for blood borne viruses are reportable to the Health and Safety Executive for Northern Ireland under the Reporting of Injuries, Diseases and Dangerous Occurrence Regulations (Northern Ireland) 1997.

A key measure in minimising the risk of occupational exposure to hepatitis C infection is to ensure that all staff are fully trained in the safe handling and disposal of sharps.

ACTION 6: All Trusts should ensure that local guidelines on the prevention of blood borne viruses and policies on the management of blood exposure incidents are reviewed to take account of recent guidance. All staff should be familiar with the risk factors for transmission of hepatitis C infection in health care settings, and the measures necessary to prevent them. Trusts should also ensure that all staff know their obligation to make occupational health departments aware if they have had a risk factor for exposure to hepatitis C or have acquired hepatitis C infection. (5.2.11 to 5.2.13)

LEAD: Trusts by August 2007

Cosmetic piercing

5.2.14 In 1985, district councils were given the power to regulate the practices of acupuncture, tattooing, ear-piercing and electrolysis. Since the 1985 legislation was made, cultural and social changes have led to an increase in the practices of cosmetic piercing (i.e. piercing of body parts other than the ear) and semi-permanent skin-colouring (usually in the form of semi-permanent make-up or temporary tattooing). These are intrusive practices and carry a risk of blood-borne virus transmission if infection control procedures are not observed, e.g. the use of sterile equipment for each client. An Order in Council was therefore made, commencing in November 2005, enabling councils to regulate tattoo parlours and piercing establishments providing these services. Appropriate guidance for councils, incorporating model bye-laws, has been drafted and published at <http://www.dhsspsni.gov.uk/bodypiercing-order.pdf>.

ACTION 7: DHSSPS has published guidance on the regulation of cosmetic piercing and skin colouring businesses, enforceable through bye-laws which district councils are encouraged to pass and submit to DHSSPS for approval. (5.2.14)

LEAD: District councils

Prisons

5.2.15 A survey in Northern Ireland prisons determined that the prevalence of blood borne viruses (including hepatitis C infection) and the risk factors for their transmission among Northern Ireland prisoners is low (see 3.2). As recommended in the survey, policies to minimise transmission of blood borne viruses in prison, including the provision of harm reduction services, appropriate education programmes, better access to immunisation, testing and counselling should be put in place to sustain the low prevalence of these infections.

ACTION 8: In light of the results and recommendations in the recent prison survey on hepatitis C, hepatitis B and HIV, the Northern Ireland Prison Service will consider its policy on the prevention and control of blood borne viruses, and its service provision for prisoners already infected with hepatitis C, liaising as necessary with DHSSPS, HSS Boards and Trusts, and CDSC in formulating any policy changes. (5.2.15)

**LEAD: Northern Ireland Prison Service (Director of Health and Healthcare)
by August 2007**

5.3 CLINICAL SERVICES

5.3.1 It is essential that high quality and accessible clinical services are available for the diagnosis and management of people with hepatitis C infection. Only a small proportion of those infected have been detected, and of those with definite evidence of chronic infection, not all are referred and attend for specialist treatment. Action has to be taken to increase detection rates and to ensure that appropriate referral to a specialist clinic takes place after detection.

Diagnosis of hepatitis C infection

5.3.2 Because of the importance for any positive HCV antibody result for the patient, repeat testing of a second blood specimen is always advised. Currently all newly diagnosed patients are routinely tested by a further test (PCR test) that checks for the presence of HCV RNA. For patients who are PCR positive, in addition to retesting the second blood specimen for HCV antibody and by PCR, genotyping is also undertaken. Quantification is undertaken as part of a pre-treatment work-up for patients with genotypes 1, 4, 5 and 6 as indicated in the current NICE guidelines.

5.3.3 People with hepatitis C infection may develop the specific life threatening complications of oesophageal varices and hepatocellular carcinoma. These complications are more common in people with cirrhosis and, as such, it will be necessary to have appropriate clinical surveillance arrangements in place to detect these conditions in those with cirrhosis secondary to chronic hepatitis C infection.

5.3.4 On 23 August 2006, NICE issued new guidance extending the use of peginterferon alfa and ribavirin to the treatment of people with mild chronic hepatitis C: see <http://www.nice.org.uk/page.aspx?o=TA106>. The previous 2004 guidance relating to people with moderate or severe diseases still stands. Entitled *Interferon alfa (pegylated and non-pegylated) and ribavirin for the treatment of chronic hepatitis C* (2004), it is available at <http://www.nice.org.uk/pdf/TA075guidance.pdf>. The Department is considering this extended guidance under its new review process before deciding on its applicability to the HPSS.

ACTION 9: HSS Boards and Trusts are required to take account of DHSSPS-endorsed NICE guidance on the treatment of people with chronic hepatitis C, within clinical priorities and available resources. (5.3.4)

LEAD: HSS Boards and Trusts by August 2007

5.3.5 Evidence is emerging from a number of specialist centres in Scotland of the effectiveness of specialist nurse-led clinics and community based services in the prevention, management and follow up of people with hepatitis C. These models of care should also be considered regionally for Northern Ireland and incorporated in the arrangements for the MCN, as resources permit. In line with the case already made by the Royal Hospitals Trust (see 3.7), a second specialist nurse should be appointed to work in the hepatology service.

ACTION 10: In line with the case already made by the Royal Hospitals Trust a second specialist nurse should be appointed to work in the hepatology service. (5.3.5)

LEAD: EHSSB with other Boards & Royal Hospitals Trust by June 2007

5.4 MANAGED CLINICAL NETWORK (MCN)

- 5.4.1 People with hepatitis C infection should be referred to a specialist service, usually led by a hepatologist or gastroenterologist with expertise in the area of hepatitis C diagnosis and management. This service would be best operated within a form of specialist Regional Hepatitis C MCN. It would be responsible for co-ordinating the overall management of people with chronic hepatitis C infection. This will help to ensure that there is equity of access to treatment and care for those people and that models of best practice are followed and audited. The network should be drawn from a wide range of multi-disciplinary groups including hepatologists, gastroenterologists with an interest in hepatology, specialist nurses, virologists, public health doctors and commissioners across Northern Ireland and take adequate account of the views of service users. It will be facilitated by the EHSSB on behalf of the four Boards and should have a project lead and clinical lead identified.
- 5.4.2 The development of a network should ensure provision for the assessment and treatment of people with hepatitis C, including the provision of services for particular groups such as those with haemophilia, those with hepatitis C/HIV co-infection, those with mental health problems, children, and ethnic minorities, and those who may experience social exclusion such as prisoners and IDUs.
- 5.4.3 The network's role will also include the development of local protocols between primary and secondary care centres to ensure patient pathways for both medical and social care, that encompass testing, referral and the whole range of treatment services, including appropriate access to end-stage liver transplantation services.
- 5.4.4 The network will also be responsible for ensuring that there are high quality surveillance arrangements in place to profile the epidemiology of hepatitis C infection, inform prevention and control activities, and inform service provision (see 5.5).
- 5.4.5 The role of the network should also include supporting the development and provision of education and training for GPs and other health care professionals about hepatitis C (see 5.2.3).

ACTION 11: The EHSSB will facilitate the development and running of a hepatitis C MCN in conjunction with Trusts. (5.4.1 to 5.4.5)

LEAD: EHSSB with other HSS Boards and Trusts by October 2007

5.5 INFORMATION AND RESEARCH

5.5.1 High quality surveillance arrangements are required to profile the epidemiology of hepatitis C infection, and inform prevention and control activities and service provision. The following objectives of a surveillance system for hepatitis C co-ordinated by the MCN should be fulfilled. It should enable:

- (a) Monitoring trends in diagnosed hepatitis C infection to enable early public health action to be taken when appropriate.
- (b) Targeting and evaluation of control and prevention measures.
- (c) Provision of data for health service planning.

5.5.2 There is a need for on-going local clinical and virological surveillance and research into hepatitis C infection.

ACTION 12: The MCN should review surveillance arrangements for hepatitis C and take forward action in any areas which need strengthened in conjunction with CDSC. (5.5.1)

LEAD: MCN by February 2008

6. MAKING IT HAPPEN

6.1 BLOOD BORNE VIRUS CO-ORDINATORS

6.1.1 The role of HSS Boards and Trusts is critical to implementation. It will be particularly important for HSS Boards to play a lead role in promoting implementation and to fully engage in the roll out of the action plan through the MCN. In recognition of this it will be important to have a designated senior Board officer who will act as a blood borne virus co-ordinator.

6.2.2 Where Health and Social Services (HSS) Boards are involved, responsibility for implementation will pass to whatever successor body or bodies emerge in the reconfiguration consequent on the Review of Public Administration.

ACTION 13: To support the work of the MCN, HSS Boards will designate, a senior Board officer as a blood borne virus co-ordinator who will be responsible for assisting the EHSSB in developing the network, for supporting and evaluating the action plan and reporting the progress being made in its implementation. (6.1.1)

LEAD: HSS Boards and Trusts by March 2007

6.2 FINAL EVALUATION

6.2.1 DHSSPS will monitor progress on the implementation of the action plan and evaluate its effectiveness after the final date for completion of all the actions has been reached in October 2007.

ACTION 14: DHSSPS will monitor progress on the implementation of the action plan at six monthly intervals and evaluate its effectiveness on its conclusion. (6.2.1)

LEAD: DHSSPS by May 2008

HEPATITIS C BACKGROUND INFORMATION

1. The hepatitis C virus (HCV)

Hepatitis C is an infection caused by a blood-borne virus and is a major cause of chronic liver disease yet it is not as well understood as other blood-borne virus infections such as HIV. In some people, it will lead to liver failure or liver cancer.

After they have been infected with hepatitis C, at first many people do not have symptoms. Indeed some 15% may clear the virus spontaneously within six months. However, about 85 out of 100 people who have been infected go on to develop chronic hepatitis C which can produce symptoms such as fatigue, nausea, weight loss and pain. The disease progresses slowly, generally over 20 to 50 years. Some people with chronic hepatitis C develop a condition called cirrhosis, which involves severe scarring (fibrosis) of the liver and can cause more severe symptoms. A small number of people develop cancer of the liver.

Hepatitis C was first described in 1989¹ and reliable tests have been commercially available since 1991. This virus accounts for most of the post-transfusion cases and some of the other cases of “non-A non-B hepatitis”. Hepatitis C is a ribonucleic acid (RNA) virus. There are numerous types and subtypes². In Northern Ireland, virtually all patients have genotype 1, 2 or 3³. The commonest are 1b, 3a and 1a.

The prevalence of hepatitis C infection has increased dramatically since it was first identified and has developed into a serious public health problem. WHO estimates that approximately 200 million people worldwide are infected with hepatitis C and that 3 to 4 million persons are newly infected each year. In England it is estimated that around 250,000 people are infected with hepatitis C, many of who are unaware of their infection. In Scotland, in 2004, 1,642 cases were diagnosed with HCV antibody bringing their cumulative total to 19,422 of whom 10% are estimated to have died⁴. Up to the end of 2005, over 900 people in Northern Ireland were diagnosed with HCV antibody, of whom over half were found by PCR testing to be chronic carriers.

2. Transmission of hepatitis C

In the UK, injecting drug use is currently the main way by which hepatitis C is spread. Prior to 1991, when screening of blood donors was introduced, a number of those who received blood products were inadvertently infected.

The earlier consultation document detailed with references the main routes of transmission. In brief, current and past IDUs (91% of the total), those who received blood products before 1986, and recipients of blood transfusions before 1991 are the highest risk groups. Other less common routes of infection include:

- from unprotected sex with a partner who has hepatitis C infection. However a recently noted high carriage rate of hepatitis C amongst men who have sex with men (MSMs) suggests sex is a significant transmission route in this group;
- from hepatitis C infected women to their infants during childbirth;
- through medical and dental procedures abroad in countries where hepatitis C is common and where hygiene may be poor;
- during tattooing or skin piercing by re-using blood-contaminated equipment, (or through sharing blood-contaminated toothbrushes or razors); and
- from patient to health care worker and vice versa.

3. Prevalence of hepatitis C

According to WHO, about 3% of the world's population has chronic hepatitis C infection. In the United States of America it is estimated that 1.8% of the population, and in France about 1%, has been infected with hepatitis C. In some parts of the Middle East, Africa and Asia the prevalence is much higher. The UK is regarded as a low prevalence area. The prevalence of hepatitis C infection among first-time blood donors in the UK is 0.05%. In England an estimated 0.4% of the general population (about 200,000 people) is chronically infected with hepatitis C. However, because there have only been 38,000 diagnoses of hepatitis C infection reported, it must be concluded that the majority of infected people are undiagnosed.

Globally, there is a rising incidence of hepatitis C infection associated with injecting drug usage. The prevalence of antibodies to hepatitis C among IDUs in England and Wales has been shown to be as high as 30%⁵. However higher prevalence rates have been reported for example, 59% in rural England⁶ and 67% in Northwest England⁷. A 2002 Scottish brief⁸ indicates that as many as 60% of those diagnosed are IDUs – although they also estimate that 50% of all IDUs are infected.

In 2002, the Unlinked Anonymous Prevalence Monitoring Programme survey of injectors was extended to Northern Ireland, 16% (12 of 77) of IDUs who took part had antibodies to hepatitis C. Of the participants, 84% (63 of 75) reported having a voluntary confidential test for hepatitis C. Just over half (5 of 9) of the injectors with hepatitis C in the survey were aware of their infection. However, in another local study⁹ it was apparent that injectors lack knowledge of the hepatitis tests that they had undergone and some believed that hepatitis B and C were the same.

Using the estimated prevalence of 0.4% for England and applying it to the Northern Ireland population of 1.7 million would suggest a total of 6,800 people with chronic hepatitis C infection. However, based on the lower prevalence in first-time blood donors in Northern Ireland a lower estimate would be 4,080 people with chronic hepatitis C infection. (The prevalence of hepatitis C infection among first-time blood donors in Northern Ireland in 2004 was 0.03% compared with 0.05% in the UK as a whole.) Since only a little over 900 diagnosed cases of hepatitis C have been reported to the end of 2005, it is apparent that, like England, most infected people here are undiagnosed.

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Produced by:
Department of Health, Social Services and Public Safety,
Castle Buildings,
Belfast,
BT4 3SQ

Telephone (028) 9052 2059

Textphone: (028) 9052 7668

email: health.protection@dhsspsni.gov.uk

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