

Advisory Group on Hepatitis

Secretariat, Expert Advice Support Office, Health Protection Agency,
61 Colindale Avenue, London NW9 5DF
Telephone: 020-8327-6688 E-mail: [easo@hpa.org.uk](mailto: easo@hpa.org.uk)

Mr Bill Barron
Police Division 1.4
Justice Department
St Andrew's House
Regent Road
Edinburgh
EH1 3DG

[PoliceBill@scotland.qsi.gov.uk](mailto: PoliceBill@scotland.qsi.gov.uk)

20th May 2005

Dear Mr Barron

Re: Blood testing following criminal incidents where there is a risk of infection, available at <http://www.scotland.gov.uk/00020750>

Thank you for attending the Advisory Group on Hepatitis (AGH) meeting on 27 April to present the Scottish Executive Justice Department's consultation paper on *Blood testing following criminal incidents where there is a risk of infection: proposal for legislation*.

Briefly, this consultation arose from a petition from the Scottish Police Federation which was concerned about assaults on police officers in which there was a risk of blood-borne virus transmission. The Executive is proposing a broader approach which would give rights to any victim of crime who faces such a risk.

As you will already know from having been at the meeting, the AGH did not support the mandatory testing proposals.

The AGH considered the measures proposed were disproportionate to the risk of blood-borne virus transmission in police officers following occupational exposure. The information provided in the consultation paper suggested that the risk is low. The AGH understood that the one report of occupationally-acquired hepatitis B virus (HBV) mentioned in the consultation paper was not confirmed as the source was not tested.

Studies in the Netherlands and the US appear to indicate that the risk is indeed low. For example, a study of occupational exposure to blood-borne viruses in the Amsterdam police force found 112 exposures over 4 years from 2000-03 with risk of viral transmission and no seroconversion.¹ Amsterdam, which has a good reporting and follow-up system for those reporting injuries outside the hospital setting, recorded no seroconversion for HBV or hepatitis C virus (HCV) in 1381 reports collected over 3 years from 2000-2003.² In studies in the US, the

¹Sonder GJ, Bovee LP, Coutinho RA, Baayen D, *et al.* Occupational exposure to bloodborne viruses in the Amsterdam police force. 2000-2003. *Am J Prev Med.* 2005; 28(2):169-74.

²Sonder GJ, Regez RM, Brinkman K, Prins JM, *et al.* Prophylaxis and follow-up after possible exposure to HIV, hepatitis B virus, and hepatitis C virus outside hospital: evaluation of policy 2000-3. *BMJ.* 2005; 330(7495):825-9.

prevalence of HBV and HCV in public safety workers in general, including police officers, was no higher than the general population, despite exposure to potential sources of virus.^{3,4,5} There has been one report of seroconversion following a violent incident between an officer and a suspect.⁶

Of course, any officer or member of the public who has potentially been exposed to a blood-borne virus, especially after an assault, is bound to feel anxious but the AGH felt that legislation was not an effective way of protecting the exposed individual and believed that it would be more helpful to focus on the follow up of the exposed individual.

It is the responsibility of the employer to protect the health of officers as is reasonably practicable; officers should have access to an occupational health service. Any officer exposed to the risk of blood borne virus exposure should be managed by appropriately competent healthcare staff, including assessment of risk of transmission, post exposure prophylaxis and testing. The police force occupational health service should provide these services either themselves or by subcontracting to an appropriate, competent provider through whom 24 hour support can be provided. If an officer is subsequently found on follow up testing to be infected, the individual should be given early referral for specialist assessment (and early treatment for hepatitis C, if indicated).

For HBV, there is a vaccine to which 90% of people respond. The AGH would recommend a risk assessment of police officers' likely exposure to HBV and the provision of immunisation, if indicated as a preventative measure. For those who have not had vaccination or were non-responders there is post exposure prophylaxis (PEP) (involving hepatitis B immunoglobulin (HBIG) as well as vaccine).⁷

For HCV, despite there being no PEP, around 25% of people with acute hepatitis C infection clear the infection spontaneously. There is also treatment that is over 90% effective in preventing development of chronic hepatitis C if started early. Testing at or before six weeks would allow for this, see below.^{8,9} Of the 9 reported seroconversions in health care workers in the UK, all have successfully cleared the virus either after treatment or spontaneously.¹⁰

³Datta SD, Armstrong GL, Roome AJ, Alter MJ. Blood exposures and hepatitis C virus infections among emergency responders. *Arch Intern Med.* 2003;163(21):2605-10.

⁴Averhoff FM, Moyer LA, Woodruff BA, Deladisma AM, *et al.* Occupational exposures and risk of hepatitis B virus infection among public safety workers. *J Occup Environ Med.* 2002; 44(6):591-6.

⁵Risshitelli G, Harris J, McCauley L, Gershon R, Guidotti T. The risk of acquiring hepatitis B or C among public safety workers: a systematic review. *Am J Prev Med.* 2001; 20(4):299-306.

⁶Abel S, Cesaire R, Cales-Quist D, Bera O, *et al.* Occupational transmission of human immunodeficiency virus and hepatitis C virus after a punch. *Clin Infect Dis.* 2000; 31(6):1494-5.

⁷Exposure to hepatitis B virus: guidance on post-exposure prophylaxis (PHLS Hepatitis Subcommittee - now part of HPA) <http://www.hpa.org.uk/cdr/CDRreview/1992/cdr0992.pdf>

⁸Jaeckel E, Cornberg M, Wedemeyer H, Santantonio T, *et al.* Treatment of acute hepatitis C with interferon alpha-2b. *N Engl J Med;* 2001; 345:1452-57.

⁹Rocca P, Bailly F, Chevallier M, Chevallier P, *et al.* Early treatment of acute hepatitis C with interferon alpha-2b or interferon alpha-2b plus ribavirin: study of sixteen patients. *Gastroenterol Clin Biol;* 2003; 27: 294-299.

¹⁰Health Protection Agency Centre for Infections, National Public Health Service for Wales, CDSC Northern Ireland. *Eye of the Needle. Surveillance of Significant Occupational Exposure to Bloodborne Viruses in Healthcare Workers, Seven-year report.* January 2005.

Available at: http://www.hpa.org.uk/infections/topics_az/bbv/pdf/eye_of_the_needle.pdf

Testing for HCV RNA following occupational exposure is normally advised at 6 and 12 weeks¹¹ but tests can be done as early as two weeks.^{12,13} It must be stressed that it may not always be possible to detect HCV at two weeks in all patients who develop hepatitis C infection.¹⁴ However, it might allay initial anxiety with proper counselling, while awaiting a definitive answer at 6 weeks. Any positive results would allow early treatment to start.

The AGH also had considerable concerns about confidentiality and questioned the ethical basis for testing on the basis of an allegation of assault before prosecution or conviction. The AGH thought that the proposed system of mandatory testing could be open to abuse and would not solve the problems of refusal and the "window period", during which it would not be possible to identify infection in a recently infected source.

This letter has been copied to the four UK Chief Medical Officers so that they are aware of the AGH's response and can discuss it together if appropriate.

I hope that this reply is helpful. AGH is happy for this response to be made publicly available and if the Scottish Executive requires any further details please do not hesitate to get in touch.

pp. Claire Swales (AGH Secretariat)

PROFESSOR HOWARD THOMAS
Chairman

Copies: AGH Observers
EAGA Secretariat
EAGA Chair
UK Chief Medical Officers

¹¹ Guidance on the investigation and management of occupational exposure to hepatitis C (inflammation of the liver caused by a viral infection). Commun Dis Public Health 1999; 2:258-62.

Available at: http://www.hpa.org.uk/infections/topics_az/hepatitis_c/pdf/HepCguidelines.pdf

¹² Wang TY, Kuo HT, Chen LC, Chen YT, *et al.* Use of polymerase chain reaction for early detection and management of hepatitis C virus infection after needlestick injury. Ann Clin Lab Sci. 2002; 32(2):137-41.

¹³ Moller, JM., & Krarup, HB. Diagnosis of acute hepatitis C: anti-HCV or HCV-RNA? Scand. J. Gastroenterol. 2003; 38(5):556-8.

¹⁴ Tanaka E, Ohue C, Aoyagi K, Yamaguchi K, *et al.* Evaluation of a new enzyme immunoassay for hepatitis C virus (HCV) core antigen with clinical sensitivity approximating that of genomic amplification of HCV RNA. Hepatology. 2000; 32(2):388-93.