

**United Kingdom Advisory Panel**  
for Healthcare Workers Infected with Bloodborne Viruses

Second Report

1<sup>st</sup> April 2004 to 31<sup>st</sup> December 2006

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**Specific webpages on the Panel and related issues are available at**  
**<http://www.hpa.org.uk/webw/HPAweb&Page&HPAwebAutoListName/Page/1203496960618?p=1203496960618>**

## Abbreviations used

A&E	Accident and Emergency
AGH	Advisory Group on Hepatitis
BBV	Bloodborne virus
CMO	Chief Medical Officer
DH	Department of Health
DNA	Deoxyribonucleic acid
DPH/DsPH	Director(s) of Public Health
EAGA	Expert Advisory Group on AIDS
EPP/EPPs	Exposure prone procedure(s)
geq/ml	genome equivalents per millilitre
HBV	Hepatitis B virus
HBeAg	Hepatitis B virus 'e' antigen (marker of high level of infectiousness)
HBsAg	Hepatitis B virus surface antigen (indicates current infection with HBV)
HCV	Hepatitis C virus
HIV	Human immunodeficiency virus
HCW/HCWs	Health care worker(s)
IgA	Immunoglobulin A
NHS	National Health Service
NK	Not known
O&G	Obstetrics and gynaecology
RNA	Ribonucleic acid
UK	United Kingdom
UKAP	United Kingdom Advisory Panel for Healthcare Workers Infected with Bloodborne Viruses
USA	United States of America

## Contents

### Executive summary

1. Introduction
  - 1.1. What is the UKAP?
  - 1.2. UKAP's accountability
  - 1.3. Remit of UKAP
  - 1.4. Role of UKAP in managing infected healthcare workers
  - 1.5. Summary of UK policy on infected healthcare workers
2. UKAP case load – 2004/2006
  - 2.1. New cases
  - 2.2. Advice on existing cases
3. Exposure prone procedures
  - 3.1. Cardiac perfusion
  - 3.2. Dermatology
  - 3.3. ENT surgery
  - 3.4. Herniorraphy
  - 3.5. Obstetrics and gynaecology
  - 3.6. Orthopaedics
4. Patient notification exercises (lookbacks)
  - 4.1. UKAP 02/24 and 04/19: hepatitis C infected obstetricians and gynaecologists
  - 4.2. UKAP 05/05: individual posing as a dentist
  - 4.3. UKAP 06/06: orthopaedic surgeon infected with HIV and hepatitis B
  - 4.4. Review of hepatitis B lookbacks
  - 4.5. Outcome of HIV lookbacks
5. Other outputs
  - 5.1. Voluntary ambulance workers
  - 5.2. Issues referred to the Advisory Group on Hepatitis
  - 5.3. HIV-infected dentist and HIV-infected patients
6. Influence of UKAP work on policy
  - 6.1. Revised guidance on HIV infected healthcare workers
  - 6.2. Review of HCV lookbacks
7. Future work for development
  - 7.1. Exposure prone procedures and emergency healthcare workers
  - 7.2. Review of policy relating to healthcare workers infected with bloodborne viruses

## 8. Appendices

Appendix A – Protocol for Panel members

Appendix B – Procedure for dealing with an enquiry to UKAP

Appendix C – UKAP enquiry pro forma

Appendix D – Summary of UKAP advice on cases 1<sup>st</sup> April 2004 to 31<sup>st</sup> December 2006

## 9. References

### Tables

Table 1: Risk of transmission of BBVs, patient to HCW and HCW to patient

Table 2: Summary of UK policy concerning management of infected HCWs and the need to inform patients

Table 3: Total number of cases referred to UKAP for advice, 1<sup>st</sup> January 2003 to 31<sup>st</sup> December 2006, by disease

Table 4: New cases referred to UKAP 1<sup>st</sup> April 2004 to 31<sup>st</sup> December 2006 regarding the need for patient notification (lookbacks) by virus status, profession and specialty

### Figures

Figure 1: Number of HCWs referred to UKAP by specialty and virus, 1<sup>st</sup> January 2003 to 31<sup>st</sup> December 2006

Figure 2: Number of HCWs referred to UKAP, EPP and non-EPP role, by virus, 1<sup>st</sup> January 2003 to 31<sup>st</sup> December 2006

Figure 3: Number of HCWs referred to UKAP, EPP role, by specialty and virus, 1<sup>st</sup> January 2003 to 31<sup>st</sup> December 2006

Figure 4: Total number of referrals to UKAP and recommended lookbacks, 1<sup>st</sup> January 2003 to 31<sup>st</sup> December 2006

### Boxes

Box 1: UKAP remit

Box 2: Definition of EPP

Box 3: Categorisation of EPPs

## **Executive summary**

This is the second report of the UK Advisory Panel for Healthcare Workers Infected with Bloodborne Viruses (UKAP) covering the period 1<sup>st</sup> April 2004 to 31<sup>st</sup> December 2006. UKAP's main role is to provide operational advice to Directors of Public Health on whether healthcare workers (HCWs) found to be infected with bloodborne viruses (BBVs) should have their practice restricted and on whether patients put at risk of transmission should be traced, notified and offered testing (patient notification exercise or 'lookback').

During the period 1<sup>st</sup> April 2004 to 31<sup>st</sup> December 2006, 80 cases involving infected HCWs were referred to UKAP for advice, 50 of them regarding the need for a patient notification exercise. Lookbacks were recommended in seven cases: two involved HIV infected HCWs; two HCV infected HCWs; one HBV infected HCW; one HCW infected with HIV and HBV; and one individual (posing as a dentist) whose BBV status was unknown.

Precedents set by UKAP during the year were as follows:

- Recommending a patient notification exercise in relation to a HCW co-infected with HIV and HBV in the absence of evidence of iatrogenic transmission from the HCW to patients.
- Recommending the extension of two lookbacks involving HCV-infected obstetrician/gynaecologists to include category 1 and 2 EPPs in view of probable transmissions via category 3 EPPs.

A Panel review of the outcomes of five lookbacks involving HCV-infected obstetrician/gynaecologists resulted in the recommendation, accepted by the Advisory Group on Hepatitis, that in future patient notification exercises need not be recommended in the absence of evidence of iatrogenic transmission from the infected HCW to patients.

## **1 Introduction**

This is the second report of the UKAP Panel. The first report covered cases referred to the Panel between 1<sup>st</sup> April 2003 and 31<sup>st</sup> March 2004. It was then decided to alter the reporting period to a calendar year basis. Hence this report covers the period 1<sup>st</sup> April 2004 to 31<sup>st</sup> December 2006.

### **1.1 What is the UKAP?**

In December 1991 the Panel was established under the aegis of the Expert Advisory Group on AIDS (EAGA) to consider individual cases of HIV-infected HCWs. Although the Panel was originally set up to advise on action regarding HCWs with HIV infection, its remit was extended in 1993 to include other BBVs, in particular HBV and more recently HCV. The Panel is now known as the UK Advisory Panel for Health Care Workers Infected with Bloodborne Viruses.

### **1.2 UKAP's accountability**

In the past, UKAP was accountable to the Chief Medical Officer through the Department of Health (DH). With effect from 1<sup>st</sup> April 2003, the UKAP secretariat was transferred from the DH to the Health Protection Agency (HPA), Communicable Disease Surveillance Centre, now known as the HPA Centre for Infections. Policy responsibility remains with the DH and the health departments of Scotland, Wales and Northern Ireland, taking account of expert advice from EAGA and the Advisory Group on Hepatitis (AGH). The UKAP is an independent advisory committee accountable to the Chief Medical Officer via the HPA.

UKAP, liaising closely with EAGA and AGH, continues to provide operational advice for dealing with HCWs infected with BBVs. UKAP considers referred cases within the framework of EAGA and AGH guidance<sup>1,2,3,4,5,6,7,8</sup>. UKAP provides advice to Directors of Public Health (DsPH) in all four UK countries. Observers from the DH and the devolved administrations attend Panel meetings.

The Panel comprises independent experts in the field of BBVs, a range of clinical specialities, legal and ethics advisers and lay members. Following transfer to the HPA, the Panel agreed a protocol setting out the responsibilities of members (Appendix A). The protocol requires members to draw appropriate boundaries between their work as UKAP members and their professional roles outside the Panel.

### **1.3 Remit of UKAP**

The remit of UKAP, which extends to all four UK countries, appears in Box 1 below.

### **Box 1: UKAP remit**

- i. To establish, and update as necessary, criteria on which local advice on modifying working practices may be based.
- ii. To provide supplementary specialist occupational advice to physicians of health care workers infected with blood-borne viruses, occupational physicians and professional bodies.
- iii. To advise individual health care workers or their advocates how to obtain guidance on working practices.
- iv. To advise Directors of Public Health (DsPH) on patient notification exercises, where these are indicated, of patients treated by health care workers infected with blood-borne viruses.
- v. To keep under review the literature on occupational transmission of blood-borne viruses and advise the Expert Advisory Group on AIDS and the Advisory Group on Hepatitis as necessary.

## **1.4 Role of UKAP in managing infected healthcare workers**

### *1.4.1 Method of case reporting*

The Panel provides advice as a committee on a case-by-case basis to enquirers. Enquiries, which usually originate from consultants in communicable disease control, consultants in public health medicine, occupational health physicians and Trust medical directors, are made to the Panel through the HPA Secretariat. Rarely, virologists, microbiologists and consultants providing care to the infected HCW may contact the secretariat.

Maintaining the confidentiality of infected HCWs is of paramount importance. Those seeking Panel advice are asked not to use personal identifying information. The UKAP Secretariat assigns a case reference number to each enquiry involving an individual HCW and removes all other information from which their identity could be deduced from Panel papers. The Panel does not provide advice to individual HCWs.

The process for dealing with enquiries summarised in Appendix B is designed to make transparent the procedures followed by the Panel in reaching its recommendations and helps explain the unavoidable hiatus whilst consultations with the Panel are undertaken. Where appropriate, enquirers are asked to complete the UKAP enquiry pro forma (Appendix C) to ensure that the Panel has all the information required on which to base its advice. It is critical that the Panel has as much information as possible at the beginning of its deliberations on a specific case, to ensure that initial advice does not have to be amended in the light of new material made available at a later date. In cases where the Panel deems that insufficient information is available to make a reasoned judgement, delays in providing advice are inevitable.

### *1.4.2 Method of arriving at a decision*

The Panel meets on a regular basis to discuss cases where there is no precedent for advice and to endorse advice sent out on its behalf where cases

are similar to those referred to UKAP in the past. During the period 1<sup>st</sup> April 2004 to 31<sup>st</sup> December 2006, there were seven full meetings of the Panel.

Where UKAP has advised on a similar case or cases in the past, this is regarded to be a precedent for advice and allows the Secretariat to prepare a response for approval by the Chairman and Deputy Chairman without needing to go through a formal consultation with all the members of the Panel.

Where there is no precedent which corresponds with the facts of a newly referred case, the Secretariat consults the Panel for advice either at a Panel meeting or by group e-mail correspondence. Through the group e-mail, Panel members are able to see responses from others, allowing them to debate issues before reaching consensus. If there is a consensus of Panel members' views, the Secretariat drafts an advice letter for the approval of the Chairman and Deputy Chairman. This method of working provides enquirers with definitive timely advice and has also allowed the Panel to respond swiftly to urgent enquires. If there is no consensus, or the view is expressed among Panel members that the particular facts of a case merit face-to-face discussion, the case will be discussed at either a regular Panel meeting or at one specifically arranged. Additional advice from outside experts is obtained by the Secretariat as necessary, either by inviting specialists to address the Panel at a regular meeting, or by correspondence.

In addition, where advice is sought on a specific issue, Panel members with the appropriate expertise for the enquiry are consulted between meetings. The Chairman and Deputy Chairman approve all letters of advice before they are issued to enquirers.

Once advice has been issued by UKAP, it is the responsibility of the DPH at local level to implement UKAP's recommendations. Even though UKAP has no powers to enforce its recommendations, there is an inherent understanding that enquirers are strongly advised to pay attention to the recommendations and implement them. Local constraints and variances will sometimes influence the implementation of the advice.

## **1.5 Summary of UK policy on infected healthcare workers**

### *1.5.1 Reported healthcare worker to patient transmissions*

Transmissions of BBVs from HCWs to patients have occurred both in the United Kingdom (UK) and internationally. Forty-eight HBV-infected HCWs have been involved in 50 reported outbreaks since 1972 to 2000. These incidents have resulted in the transmission of HBV to ~500 patients.<sup>9</sup> To date, there have been no reported cases of HIV transmission from a HCW to a patient in the UK, despite a number of lookbacks that have taken place. Internationally, eight patients have been documented with HIV acquisition following procedures performed by three infected HCWs.<sup>10,11,12</sup> In the period between 1994 and 2003, there were five incidents of HCV-infected HCWs transmitting the virus to 15 patients in the UK. All five HCWs were surgeons.<sup>6</sup>

Five documented international cases have been described in the literature, resulting in the acquisition of HCV in 13 patients.<sup>13,14,15,16,17,18</sup>

### 1.5.2 Rationale for UK policy

The notification of patients exposed to an infected HCW in the UK was introduced to meet three very distinct purposes. Firstly, notification exercises are intended to meet the current national policy which requires patients operated on by an infected HCW to be notified of the risk they may have been exposed to, as far as is practicable. Secondly, they are intended to detect any patients who may have been infected in order to offer them the necessary care and to prevent onward viral transmission. Finally, they are intended to collect data useful in refining current understanding on risk estimates.

The overall risk of any of the BBVs being transmitted by an infected HCW to a patient is very small and has been estimated to be as shown in Table 1 below. The corresponding risk of transmission from patient to HCW for each virus is also given for the sake of comparison. The UK rates of transmission may appear to be higher than in other countries as a result of the more active approach undertaken to surveillance and the identification of cases.

**Table 1: Risk of transmission of bloodborne viruses, patient to healthcare worker and healthcare worker to patient**

Infection	Route of transmission	
	Patient to healthcare worker	Healthcare worker to patient
Hepatitis B <sup>19</sup>	1 in 3	1 in 420 to 1 in 4,200*
Hepatitis C <sup>19</sup>	1 in 30	1 in 1,750 to 16,000**
HIV <sup>20</sup>	1 in 300	1 in 42,000 to 1 in 420,000*

\* Based on risk of transmission from HCW to patient in a single procedure following a single injury incident to the HCW, in a model exercise

\*\* Based on risk to single injury incident in a single exposure prone procedure with risk of transmission based on the risk of transmitting HCV to a HCW following a needlestick injury, ranging from 2.2% to 9.2%

HCWs who perform EPPs should know their HIV, HBV and HCV status. The concept of 'exposure prone procedure' was developed in order to distinguish between those clinical procedures which carry a risk of transmission from HCW to patient and those which do not. The definition appears in Box 2 below.

## **Box 2: Definition of exposure prone procedure**

“Exposure prone procedures are those invasive procedures where there is a risk that injury to the worker may result in the exposure of the patient’s open tissues to the blood of the worker (bleed-back). These include procedures where the worker’s gloved hands may be in contact with sharp instruments, needle tips or sharp tissues (e.g spicules of bone or teeth) inside a patient’s open body cavity, wound or confined anatomical space where the hands or fingertips may not be completely visible at all times. However, other situations, such as pre-hospital trauma care should be avoided by healthcare workers restricted from performing exposure prone procedures, as they could also result in the exposure of the patient’s open tissues to the blood of the worker.”

The stratification of exposure prone procedures (EPPs) into three categories according to the level of risk of bleed-back is intended to promote consistency in assessing the risk in individual cases of HCWs infected with any of the three BBVs at local level, both within and between different specialties. This categorisation is also used by the Panel when interpreting the guidance in order to provide advice to enquirers (see section 3).

### *1.5.3 Summary of UK policy*

UK policy in relation to the management of infected HCWs and whether or not patient notification exercises should be undertaken following their identification has evolved in response to the need for advice by local organisations employing HCWs on the basis of the available evidence. The variations between the policies relating to the three BBVs reflect knowledge about the differential risks of transmission from HCWs to patients. Table 2 below summarises the policies.

**Table 2: Summary of UK policy concerning management of infected healthcare workers and the need to inform patients who have undergone exposure prone procedures by an infected healthcare worker**

	HIV <sup>1</sup>	Hepatitis B <sup>2,3,4,5</sup>	Hepatitis C <sup>6</sup>
<b>Restriction of practice of healthcare worker?</b>	Yes	Yes, unless HBV e-antigen negative with viral load below 10 <sup>3</sup> geq/ml.	Yes
<b>Return to exposure prone procedures?</b>	No	Yes, if HBV e-antigen negative, <u>AND</u> following natural suppression of HBV DNA to <10 <sup>3</sup> geq/ml <u>OR</u> with suppression following therapy sustained after a period of 12 months following treatment <u>OR</u> with suppression whilst on antiviral therapy provided pre-treatment viral load between 10 <sup>3</sup> and 10 <sup>5</sup> geq/ml.	Yes, if, following treatment, they remain HCV RNA negative for at least 6 months after cessation of treatment. As a further check, they should be shown still to be HCV RNA negative 6 months later.
<b>Patient notification after healthcare worker to patient transmission or 'other relevant considerations'?</b>	Yes	Yes	Yes
<b>Patient notification if no healthcare worker to patient transmission?</b>	Yes, category 3 exposure prone procedures only.	No	No

HBV is currently the only BBV for which a vaccine is available. It is strongly recommended that all non-immune HCWs who may be exposed to HBV in the course of their work be immunised against HBV for their own protection.<sup>7</sup>

## **2 UKAP caseload – 1<sup>st</sup> April 2004 to 31<sup>st</sup> December 2006**

During the reporting period a total of 80 cases involving infected HCWs were referred to UKAP for advice (Appendix D). Members were consulted for their advice by correspondence in connection with 16 cases where the Panel had not previously set a precedent. Of the 80 cases referred to UKAP during the

reporting period, 50 were requests for advice regarding the need to undertake a patient notification exercise. The Panel also received requests for advice concerning existing cases, for example, whether BBV infected HCWs could resume EPPs following successful antiviral therapy, and about the categorisation of EPPs in different specialities. Detailed analysis of the cases appears in Tables 3 and 4 and Figures 1 to 4; a summary of the Panel advice issued in each case is given in Appendix D.

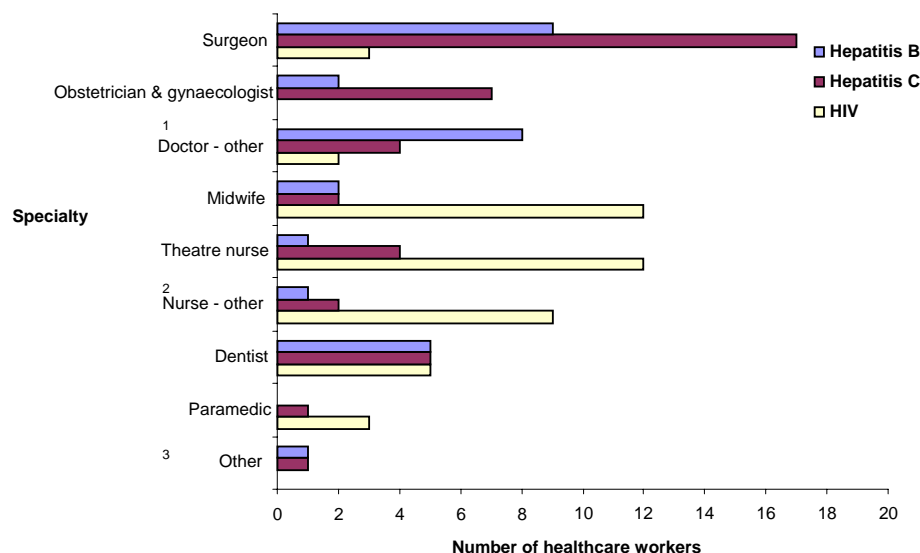
Overall, approximately 30 cases per year are referred to UKAP for advice. Of the 122 cases referred between 2003 and 2006, 37% (45/122) involved HIV positive HCWs; 23% (28/122) HBV infected HCWs and 38% (46/122) HCWs infected with HCV. For the first time in 2006, Panel members were consulted about a patient co-infected with HIV and HBV viruses.

**Table 3: Total number of cases referred to UKAP for advice, 1<sup>st</sup> January 2003 to 31<sup>st</sup> December 2006, by disease**

Disease	2003	2004	2005	2006	Total
HIV	13	12	9	11	45
Hepatitis B	7	7	8	6	28
Hepatitis C	16	13	9	8	46
HIV and hepatitis B	0	0	0	1	1
BBV status unknown	0	0	1	1	2
<b>Total</b>	<b>36</b>	<b>32</b>	<b>27</b>	<b>27</b>	<b>122</b>

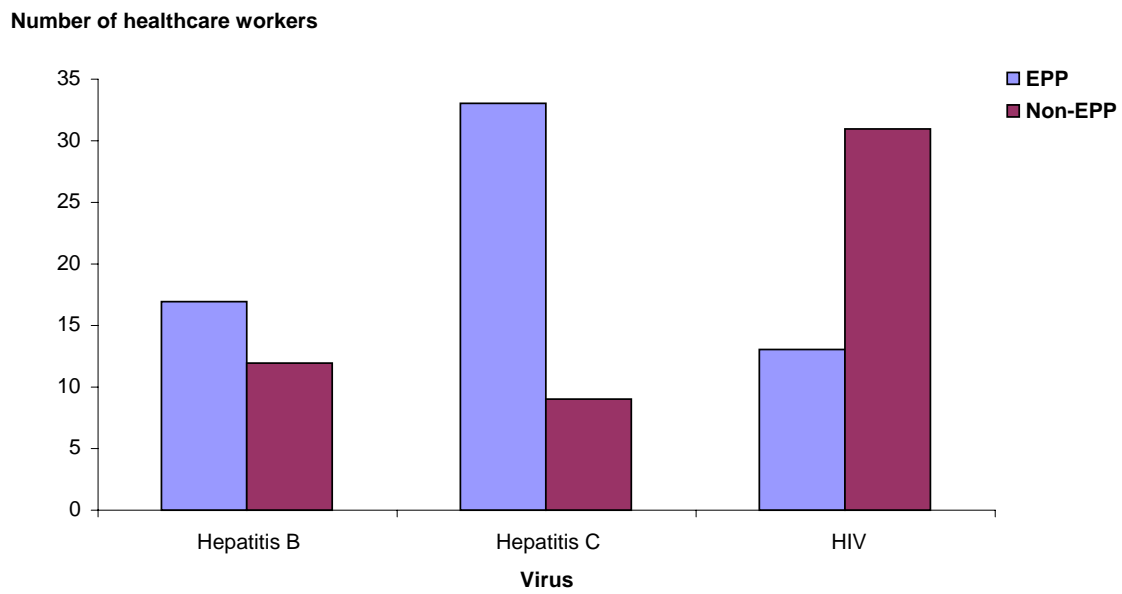
Referrals to UKAP varied by speciality as well as by virus. Surgeons were the most likely medical profession to be referred for advice (32 of the 54 cases amongst doctors), and in the majority of cases advice was requested concerning HCV infected individuals. In contrast, whilst fewer midwives and nurses were referred to UKAP (29 and 16 respectively), these professions were more likely to need advice concerning HIV.

**Figure 1: Number of healthcare workers referred to UKAP by specialty and virus, 1<sup>st</sup> January 2003 to 31<sup>st</sup> December 2006**



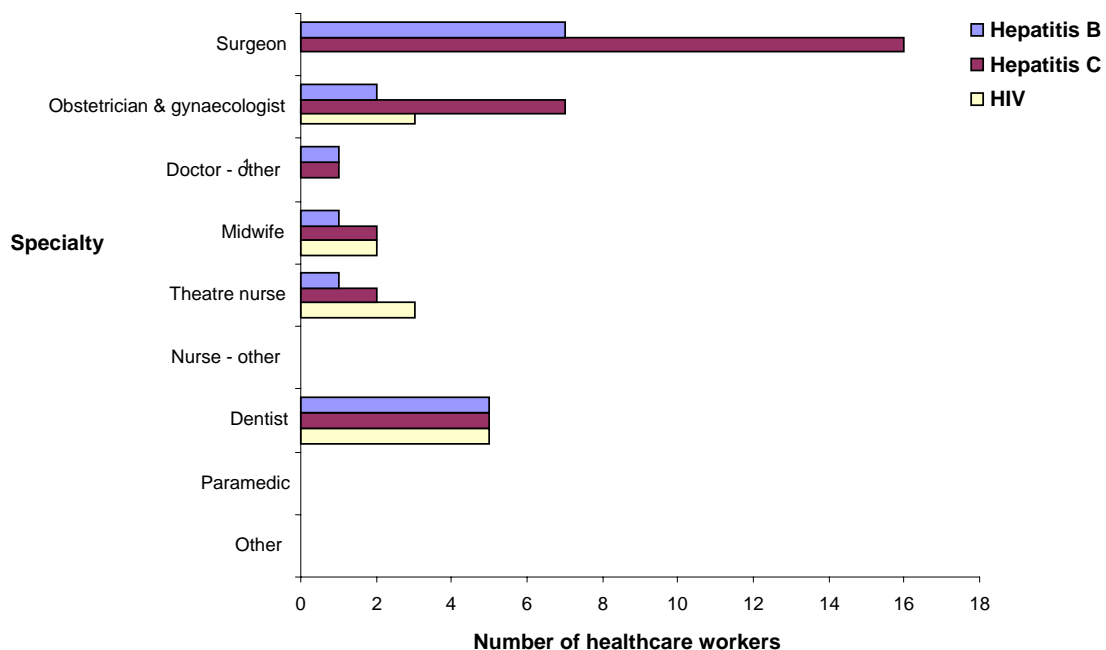
The number of HCWs referred to UKAP according to whether or not they had an EPP role is shown in Figure 2. The data show that advice requested for HCWs infected with HCV concerned EPP roles, whereas for HIV, advice requested concerned HCWs undertaking non-EPP roles (Figure 2).

**Figure 2: Number of healthcare workers referred to UKAP by EPP and non-EPP role and virus, 1<sup>st</sup> January 2003 to 31<sup>st</sup> December 2006**



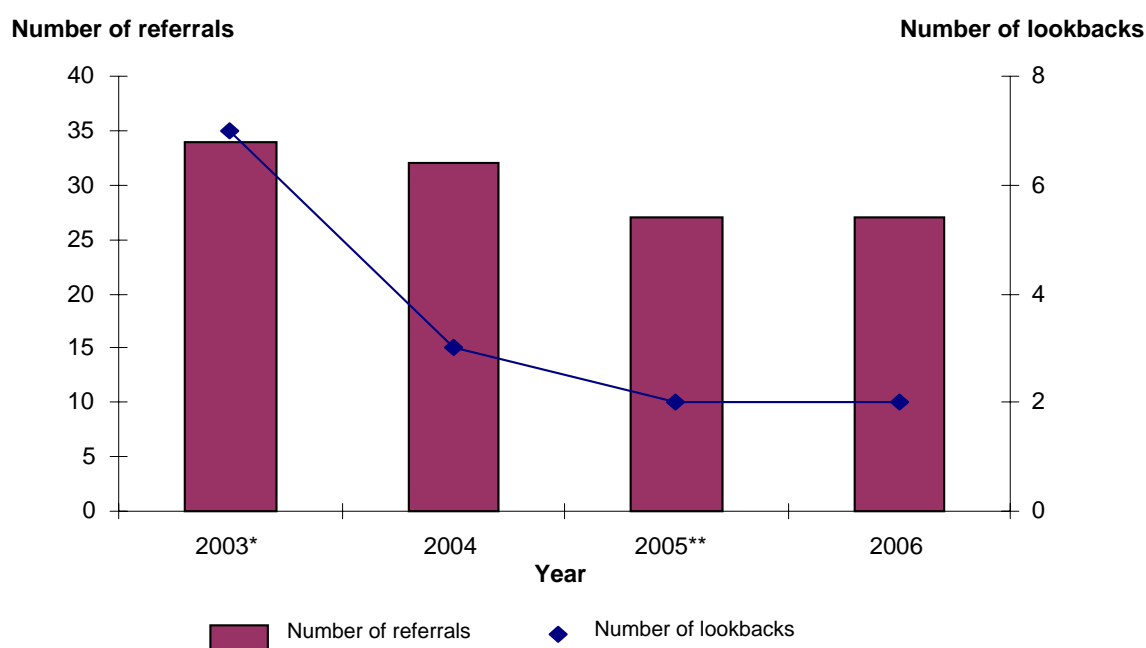
Further analysis of this data shows most of these HCWs undertaking an EPP role were surgeons (Figure 3).

**Figure 3: Number of healthcare workers referred to UKAP, EPP role, by specialty and virus, 1<sup>st</sup> January 2003 to 31<sup>st</sup> December 2006**



Whilst the number of referrals to UKAP has remained at about 30 cases per year, recommendations for patient notification exercises (lookbacks) have fallen dramatically, from 7 in 2003 to 2 in 2006 (Figure 4). This fall is due partly to the change in HIV lookback policy originally announced in November 2001 and subsequently set out in a consultation paper in June 2002 and in the final guidance issued in July 2005. Another reason for the fall is the review by UKAP of the outcome of patient notification exercises involving HCV-infected HCWs resulting in a decision to cease recommending lookbacks in cases where there is no evidence of iatrogenic transmission from the HCW to patients (Section 6.2).

**Figure 4: Total number of referrals to UKAP and recommended lookbacks, 1<sup>st</sup> January 2003 to 31<sup>st</sup> December 2006**



\* 1 referral in 2003 concerned a surgeon with a false positive hepatitis C test result

\*\* 1 referral in 2005 concerned a person posing as a dentist

Table 4 shows the numbers of referrals by virus, profession and speciality. Of the 80 cases referred to UKAP during the reporting period, 50 were requests for advice regarding the need to undertake a patient notification exercise. Seven of these referrals resulted in UKAP recommending a lookback (2 HIV, 1 HBV, 2 HCV, 1 HIV + HBV and 1 BBV not known) (Table 4).

**Table 4: New cases referred to UKAP 1<sup>st</sup> April 2004 to 31<sup>st</sup> December 2006 regarding the need for patient notification (lookbacks) by virus status, profession and specialty**

<b>Virus</b>	<b>Profession</b>	<b>Specialty</b>	<b>Lookbacks (N)<sup>1</sup></b>
HIV			
	Midwife		0(6)
	Nurse	Theatre	1(5)
		Paediatric	0(1)
	Dentist		0(3)
	Surgeon	Orthopaedic	1(1)
		General	0(1)
	Paramedic		0(2)
	Anaesthetist		0(1)
<b>Total<sup>2</sup></b>			<b>2(20)</b>
HBV			
	Surgeon	A&E	0(2)
		Orthopaedic	0(2)
		General	1(1)
	Midwife		0(1)
	Nurse	Theatre	0(1)
		Renal	0(1)
<b>Total<sup>2</sup></b>			<b>1(8)</b>
HCV			
	Surgeon	Obs/Gyn	1(3)
		Orthopaedic	0(3)
		General	0(1)
		Herniorraphy	0(1)
		Maxillo-facial	0(1)
		Plastic	0(1)
		Urologist	0(1)
	Dentist		1(3)
	Midwife		0(2)
	Nurse	Theatre	0(2)
	Doctor		0(1)
	Paramedic		0(1)
<b>Total<sup>2</sup></b>			<b>2(20)</b>
Other			
BBV status unknown	Dentist		1(1)
HIV+HBV	Orthopaedic surgeon		1(1)
<b>Total<sup>2</sup></b>			<b>2(2)</b>
<b>Overall total<sup>2</sup></b>			<b>7(50)</b>

1 (N) is the number of cases referred to UKAP by profession and speciality

2 Total number of cases by virus referred to UKAP in 2004 to 2006 where a patient notification exercise was recommended

### 3 Advice on exposure prone procedures

The definition of 'exposure prone procedure' appears above (Box 2). HCWs who perform EPPs must know their HIV, HBV and HCV status.<sup>7</sup> Infectious HCWs, ie. those who are either HCV PCR positive or HBV surface antigen positive or HIV positive, must not perform EPPs. As such, an important part of UKAP's work is advising on the categorisation of procedures in different healthcare specialties as either exposure prone or non-exposure prone. This categorisation is used to determine which procedures may be undertaken by a HCW infected with a BBV whose practice is restricted and also whether patients may have been exposed to transmission by an infected HCW. Professional organisations also have a role in assisting the Panel in determining what is exposure prone. UKAP's advice on EPPs is only a guide to support local occupational health departments and incident management teams since the actual level of risk depends on the exact nature of procedures undertaken and the way in which they are performed by an individual working in a particular healthcare environment – factors which can be determined only by a thorough local risk assessment. Numbers of referrals to UKAP by EPP/non-EPP role were discussed in section 2.

As knowledge about BBVs and their transmission increased, it became possible to make a further distinction between EPPs bearing a different risk of 'bleed-back' from a HCW to a patient. A categorisation according to the level of risk of bleed-back was developed in order to enable more focussed advice to be given in relation to the need to undertake patient notification exercises (Box 3). In the absence of evidence of iatrogenic transmission from an infected HCW to a patient, for example, and in the absence of any other factors which might have put patients at risk, such as poor infection control, a patient notification exercise in relation to a HCW infected with HIV need only be undertaken in respect of category 3 EPPs (at least, in the first instance).

#### Box 3: Categorisation of exposure prone procedures<sup>1</sup>

##### Category 1

Procedures where the hands and fingertips of the worker are usually visible and outside the body most of the time and the possibility of injury to the worker's gloved hands from sharp instruments and/or tissues is slight. This means that the risk of the health care worker bleeding into a patient's open tissues should be remote.

Examples: *local anaesthetic injection in dentistry, removal of haemorrhoids.*

##### Category 2

Procedures where the fingertips may not be visible at all times but injury to the worker's gloved hands from sharp instruments and/or tissues is unlikely. If injury occurs it is likely to be noticed and acted upon quickly to avoid the health care worker's blood contaminating a patient's open tissues.

Examples: *routine tooth extraction, appendicectomy.*

### **Category 3**

Procedures where the fingertips are out of sight for a significant part of the procedure, or during certain critical stages, and in which there is a distinct risk of injury to the worker's gloved hands from sharp instruments and/or tissues. In such circumstances it is possible that exposure of the patient's open tissues to the health care worker's blood may go unnoticed or would not be noticed immediately.

Examples: *hysterectomy, caesarean section, open cardiac surgical procedures.*

During this reporting period, the Panel completed a substantial amount of work in this area. At the time of writing, there are available categorisations of EPPs in the following specialties:

- Breast surgery
- Colorectal surgery
- Dentistry
- ENT surgery
- General surgery
- Maxillo-facial surgery
- Obstetrics and gynaecology
- Orthopaedics
- Urology

### **3.1 Cardiac perfusion**

The Panel received a request for advice concerning a HCW infected with hepatitis B who wished to train as a cardiac perfusionist. Cardiac perfusion is necessary during cardiac bypass surgery when a machine is used to pump blood around the patient's body. The cardiac perfusionist is responsible for setting up the machine, priming it with fluids, including blood, and passing sterile tubes to the surgeon in order for the circuit to be completed. The perfusionist then monitors delivery, pressure and coaguability in relation to the patient's blood circulation until the machine is withdrawn. The Panel received expert advice that the practice of cardiac perfusion does not involve undertaking EPPs and therefore advised that the HCW could train as a cardiac perfusionist.

### **3.2 Dermatology**

Advice was given in relation to the categorisation of specific dermatological surgical procedures (as opposed to large skin procedures undertaken by plastic surgeons). The issue to consider when applying the guidance definition of EPPs within the context of dermatological surgery is the extent to which the volume of blood present may prevent the hands and fingertips from being completely visible at all times, even if they do not enter a patient's wound.

### **3.3 ENT surgery**

The Panel was asked to advise on the need for a patient notification exercise following diagnosis of HIV in an ENT surgeon. In order to support the local risk assessment, the Panel secretariat collated previous UKAP advice in this

area and obtained expert professional advice on the categorisation of a number of ENT procedures.

### **3.4 General surgery**

The Panel advised on the categorisation of two procedures in general surgery as follows:

- A Robert Jones procedure is a category 1 EPP i.e. it carries a low risk of bleed-back from HCW to patient.
- A percutaneous endoscopic gastrostomy (PEG) procedure is not exposure prone.

### **3.5 Herniorraphy**

Advice was sought as to whether a HCV infected surgeon could undertake laparoscopic herniorraphy procedures. Whilst laparoscopic procedures are not intrinsically exposure prone, the problem is that they are frequently the prelude to an open surgical procedure which would be exposure prone. Concern was expressed that Panel advice might be construed in a way which did not take this into account. Previous Panel advice had distinguished between 'therapeutic' and 'diagnostic' laparoscopy in terms of the risk of escalation into an open surgical, and therefore exposure prone, procedure. The Panel advised in the first instance that laparoscopic herniorraphy is exposure prone subject to further advice being obtained from specialist colleagues. (Following the end of the reporting period, the Panel revised its advice in the light of specialist advice, advising that laparoscopic herniorraphy is not exposure prone.)

### **3.6 Obstetrics and gynaecology**

A review of the categorisation of procedures in obstetrics and gynaecology was prompted by detailed enquiries from the local incident management teams undertaking two patient notification exercises (UKAP 02/24 and UKAP 04/19). In November 2004 a Panel subgroup, including outside experts, was convened to review a provisional categorisation of EPPs in obstetrics and gynaecology. The subgroup's recommendations were considered by the Panel and incorporated into a revised categorisation of EPPs in obstetrics and gynaecology. The attachment of a fetal scalp electrode and infiltration of the perineum with local anaesthetic are no longer considered to be exposure prone and the repair of a superficial perineal tear is a category 1 EPP.

### **3.7 Orthopaedics**

In relation to a HCV infected orthopaedic surgeon, the Panel advised that the risks from arthroscopy are small, provided that this does not proceed to an open surgical procedure. Therefore the surgeon could continue undertaking arthroscopy whilst viraemic.

In connection with a case involving an orthopaedic surgeon infected with HBV, expert advice was obtained on the categorisation of EPPs in orthopaedics, ensuring that this was consistent with the Panel's categorisation of EPPs in general surgery.

#### **4 Patient notification exercises (lookbacks)**

Exercises to identify and notify patients of an infected HCW are undertaken not only to inform and offer testing and, if appropriate, treatment to those patients and to prevent further transmission, but also to supplement research findings, clarify legal or ethical issues, evaluate risk and reassure the public. Infected HCWs may be identified through disclosure by the HCW themselves; identification through a screening programme or identification during the follow-up of another infected patient. Well-designed investigations need to be carried out to describe accurately the transmission level or transmission parameters when an infected HCW may have transmitted a bloodborne pathogen to a patient.

##### **4.1 UKAP Cases 02/24 and 04/19: hepatitis C infected obstetrician/gynaecologists**

In UKAP Case 02/24, the Panel had initially advised in 2003 that, although there had been no index case of transmission, a staged patient notification exercise should be undertaken in relation to the last 500 patients who had undergone category 3 EPPs where the HCW was involved either as main operator or first assistant. Publicity surrounding the patient notification exercise in this case resulted in the identification of a probable HCW to patient transmission during the period shortly before the date at which the lookback had stopped. The Panel advised that a further patient notification exercise should be undertaken in relation to patients who underwent category 3 EPPs going back to the date when the HCW first began work in the UK. As the patient was reported to have had no other risk factors for HCV infection, the cause of infection should have been investigated in 1996 when first diagnosed. This meant that, in effect, there had been an index case of transmission. The second phase of the lookback detected two probable HCW to patient transmissions through category 3 EPPs.

In UKAP Case 04/19, a patient notification exercise in respect of category 3 EPPs detected three probable HCW to patient transmissions.

Both cases involved HCWs who had held posts in a large number of hospitals over a period of about 20 years. In view of the probable HCW to patient transmissions via category 3 EPPs, the Panel advised that the lookbacks in respect of both cases should be extended to include category 1 and 2 EPPs. As there was a significant overlap between the hospitals involved, it was also recommended that the HPA Centre for Infections should coordinate the two extended lookbacks together. This was intended to maintain consistency in the implementation of Panel advice and prevent confusion among implicated individuals or the general public when patients potentially at risk of transmission were notified. Owing to the considerable amount of work involved in undertaking the local risk assessments and tracing patients potentially at risk of transmission, the patient notification exercises would be implemented in 2007, after the end of this reporting period.

#### **4.2 UKAP Case 05/05: individual posing as a dentist**

An individual had posed as a dentist working at several practices owned by their spouse, undertaking a full range of dental care. Following complaints about the individual's clinical practice, an investigation revealed that s/he was not in fact a qualified dentist. At the time of the enquiry to the Panel, the individual had just been sentenced to two years in prison and their spouse to one year. The local primary care trust was leading the NHS management of the incident and was planning a recall of all patients to assess their clinical treatment and offer remedial dental work if needed.

It was not known whether the individual was infected with any BBV. However, the local incident management team took the view that, as the individual's clinical practice had been substandard, it should be assumed that infection control had also been substandard. If the individual's infection control had been substandard, there was a high risk of transmission of BBVs between patients, whether or not the individual was infected with a BBV.

The Panel advised that all the individual's patients should be contacted and offered testing for HIV and hepatitis B and C in addition to a dental assessment. They also recommended that the individual should be offered testing on the basis that they, too, might benefit from identification of and treatment for a BBV if found to be infected, since there was a higher risk of transmission of a BBV from a patient to them than vice versa. The results of a positive test in the individual would also enable determination of any transmission from the individual should any positive cases be found among the cohort of patients.

No transmissions of BBVs were detected from the individual to patients.

#### **4.3 UKAP Case 06/06: orthopaedic surgeon infected with HIV and hepatitis B**

This was the first case where UKAP advice was requested in respect of a HCW co-infected with two BBVs. This orthopaedic surgeon was found to be infected with HBV as a result of screening and subsequently found to be HIV positive. On the basis of the surgeon's very high HBV viral load, it was possible that they had been infected with HBV some years previously but did not become ill with the disease. Subsequently acquired HIV may have suppressed their immune system and reactivated the HBV. In co-infections of this kind, the HBV viral load can rise to very high levels. It is also possible, although far less likely, that the immuno-suppression caused by the HIV resulted in the surgeon becoming infected with a different strain of HBV.

The Panel considered whether co-infection with more than one BBV should merit a change in UKAP's usual advice not to undertake a lookback in the absence of evidence of HCW to patient transmission. The immuno-suppression may have resulted in increased shedding of highly infectious HBV which could have put patients at risk even where low-risk EPPs had been performed. Less is known about the behaviour of HIV than HBV in the

presence of another BBV, but it has been observed that the prognosis for co-infected individuals is poorer and that there is a greater risk of vertical transmission from mother to baby because of the higher viral load.

The Panel therefore recommended that a patient notification exercise should be undertaken in respect of all EPPs performed by the surgeon since the date when the latest period of employment in the UK had begun, in the first instance. Patients should be offered testing for both HIV and HBV.

No HCW to patient HBV or HIV transmissions were detected by the lookback.

#### **4.4 Review of hepatitis B lookbacks**

Following consideration of a complex case involving HBV, the Panel undertook a review of previous Panel advice issued in relation to HBV cases to assess whether a consistent approach was being undertaken within the framework of the guidance concerning the management of HBV infected HCWs. The Panel considered an update on the impact of chronic HBV disease in HCWs and its management. The key markers to determine restriction of practice are a test result which is either HBV e-antigen positive, or HBV e-antigen negative but with a HBV DNA viral load exceeding  $10^3$  genome equivalents per ml.

The Secretariat's review of 25 cases involving HBV transmission from HCWs to patients indicated compliance with NHS policy. Before 1993, the HCWs reported to the Panel were all HBV e-antigen positive. After 1993, when the practice of HBV e-antigen positive HCWs was also required to be restricted, all HBV infected HCWs referred to the Panel were HBV e-antigen negative. The review included only one patient notification exercise undertaken after 1999, when the restriction was extended to HBV e-antigen negative HCWs with a HBV DNA viral load exceeding  $10^3$  genome equivalents per ml. Whilst figures are not collected to assess whether fewer HCWs with chronic HBV are now performing EPPs the indications from referrals to the Panel are that this is in fact the case.

#### **4.5 Outcome of HIV lookbacks**

The Panel reviewed the outcome of HIV lookbacks undertaken on its advice. No HCW to patient HIV transmissions had been detected. It was noted that the majority of patients traced and contacted in the course of the patient notification exercises had not accepted the offer of a test.

### **5 Other outputs**

#### **5.1 Volunteer healthcare workers**

The Tripartite Medical Committee of the Voluntary Aid Societies requested Panel advice concerning HIV infected volunteer HCWs and EPPs. The Voluntary Aid Societies owe a duty of care to their volunteers and prospective patients, both in statute and at common law. Therefore the Panel advised that volunteer HCWs infected with BBVs who undertake EPPs should be managed in the same way as those in paid employment. It was

recommended that the Voluntary Aid Societies should implement the NHS guidance concerning the management of HCWs infected with BBVs, screening volunteers who undertake EPPs and restricting the practice of any found to be infected with a BBV.

### **5.2 Referral of issues to Advisory Group on Hepatitis (AGH)**

The Panel referred two issues to the Advisory Group on Hepatitis (AGH) during the reporting period. The first related to the management of patients identified as being at risk following an EPP undertaken by a HCW who had recently acquired acute HCV infection. The second concerned the cut-off level for restriction of practice in HBV infected HCWs who are e-antigen negative.

The AGH confirmed its previous advice as follows:

- Patients operated on by a HCW who had recently acquired acute HCV infection should be offered anti-HCV and HCV RNA testing at three months after the date of the EPP, enabling referral for consideration of early treatment should they test positive for HCV.
- There were no current plans to revise the HBV DNA threshold of  $10^3$  for restriction of practice. The AGH recognised that HBV viral loads could rise between annual tests and accordingly had set a threshold to provide a safety margin to ensure that, in the intervals between tests, HBV DNA should not rise to levels where transmissions are known to have occurred.

### **5.3 HIV infected dentist and HIV infected patients**

In June 2006, the Expert Advisory Group on AIDS (EAGA) had considered a request for advice about the acceptability of an HIV-infected dentist exclusively treating HIV-infected patients. The issue had been considered by UKAP in the past, when advice had been given that an HIV-infected dentist could carry out EPPs on HIV-infected patients with their consent, subject to clearance from the General Dental Council. UKAP had mentioned the theoretical risk of super-infection with a resistant HIV strain, but the NHS trust concerned had taken the view that the virus infecting the dentist and the patients they would be treating came from a common pool of circulating viruses. EAGA had reached the same conclusion in response to this second enquiry, with similar caveats which included the need for the dentist to receive occupational health supervision. EAGA had also asked for UKAP's views on whether restrictions on HIV-infected dentists in primary care should be reviewed.

The Panel acknowledged that dentists infected with BBVs do not have the same scope for redeployment or retraining as other HCWs. However, this was seen as insufficient grounds for treating this group differently from other groups of HCWs in terms of restriction of practice which was intended to protect patients from the risk of transmission of BBV infection. At the same time, the Panel considered it timely for there to be a joint review with EAGA and the AGH of current policy on restriction of practice across all groups of HCWs infected with BBVs, including dentists.

## 6 Influence of UKAP work on policy

### 6.1 Revised guidance on HIV infected healthcare workers

The Panel contributed to the substantive Department of Health guidance entitled, *HIV infected healthcare workers: guidance on management and notification*, published in July 2005<sup>1</sup>. This took into account comments on the earlier version of the document published for consultation in 2002. A thorough revision was undertaken of Annex A – ‘Examples of UKAP advice on exposure prone procedures’ – in the light of Panel advice given since the publication of the consultation document.

### 6.2 Review of hepatitis C lookbacks

During this reporting period, the Panel reviewed the outcomes of the five patient notification exercises it had recommended in 2003 involving HCV infected HCWs where there had been no index event of probable transmission to a patient, and compared them with the outcomes of the HCV lookbacks reported in the literature. The Panel considered the statistical evidence presented in a full review of HCV lookbacks.

The statistical analysis in the review distinguished between ‘probable’ cases of transmission – where genotype determination and phylogenetic analysis of the patient’s HCV RNA had enabled the identification of a virus indistinguishable from that of the HCW, and ‘possible’ cases – where patients had been found to be HCV antibody positive but HCV RNA negative, and it is impossible to determine whether or not the infection was transmitted by the HCW. Although the confidence intervals in the calculation of transmission rates for these two groups of patients did not overlap, it was impossible to be certain that the groups were different since the results were not statistically significant.

The Panel agreed not to recommend any further lookbacks in cases involving HCV infected HCWs where there is no index event of probable transmission to a patient.

As a result of this review, the Panel made the following recommendations to the AGH:

- a) That where there is **no** known transmission from a HCV infected HCW to a patient, a patient notification exercise need not be undertaken.
- b) That where there **is** a known HCV infected HCW to patient transmission, only those patients on whom high risk i.e. category 3, EPPs were undertaken need to be notified and offered testing in the first instance.

The AGH accepted the Panel’s recommendations, thus confirming the approach which the Panel had developed in responding to requests for advice.

## **7 Future work for development**

### **7.1 Exposure prone procedures and emergency healthcare workers**

UKAP had received a number of enquiries in recent years seeking advice concerning the categorisation of procedures undertaken by HCWs in the emergency services. To date, UKAP had advised that HCWs in the emergency healthcare services restricted from undertaking EPPs should not provide pre-hospital trauma care on the basis that injury to a HCW in emergency situations might result in 'bleedback' to a patient. Paramedics and emergency medical technicians (EMTs) do not undertake EPPs as a normal part of their practice but there is a rare chance that bleed-back to a patient might occur during an emergency, for example, following a serious road accident at night.

In view of the coming into force of the Disability Discrimination Act in December 2005, the Panel agreed that the Secretariat should set up a Panel subgroup to undertake some work in this area, inviting experts from relevant organisations to participate.

### **7.2 Review of policy relating to healthcare workers infected with bloodborne viruses**

Following the Panel's consideration of the request for relaxation of the restriction of practice of an HIV-infected dentist (see section 5.3 above), the Secretariat began work on a detailed review of the guidance relating to the management of BBV-infected HCWs and the outcomes of patient notification exercises. This would lead to further work in the next reporting period.

## **8. Appendices**

### **Appendix A – Protocol for Panel members**

#### **Collective responsibility**

Panel sessions are based on a consensus of different views from Panel members. Once a consensus has been reached, this becomes a recommendation and constitutes the Panel's advice. Members may clearly express their individual views at Panel meetings and endeavour to achieve a particular decision or course of action. However, once a decision has been formally reached by the Panel, members accept that this decision becomes Panel advice.

It is the responsibility of every Panel member to seek to uphold Panel decisions and to endeavour to rectify any errors that come to their knowledge as a result of further advances in research, revealing new evidence contrary to the standing decision.

Where the involvement of an individual member in a case referred to the Panel for advice could give rise to a conflict of interest, the member should declare that involvement and, if the Chairman considers it appropriate, leave the meeting during the discussion of that item.

#### **Public statements**

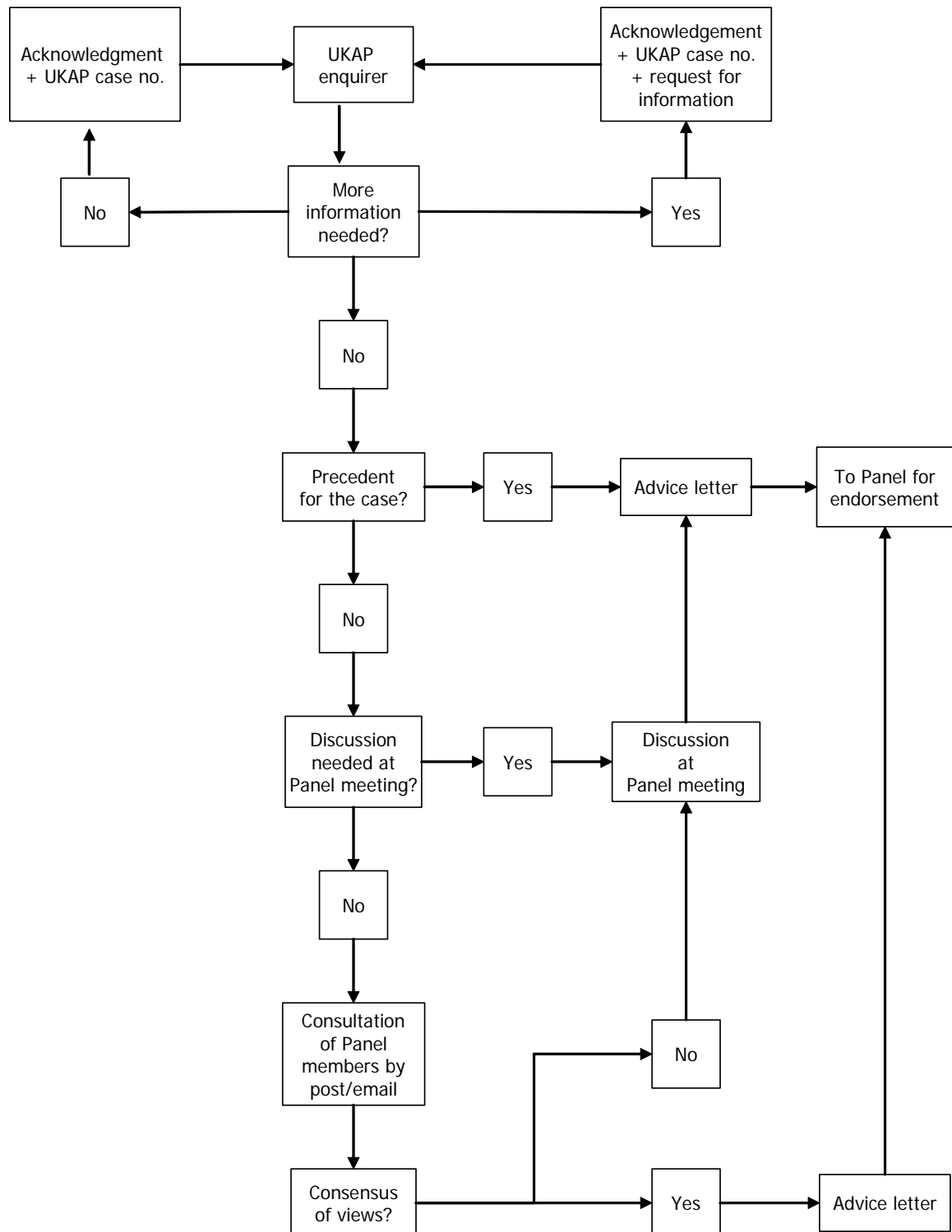
All statements on behalf of the Panel should be made by the Chairman or, in his/her absence, the Deputy Chairman. Where this is not possible, members should seek Panel ratification of their statement through the Secretariat.

On occasion, Panel members may be asked their opinion on matters related to Panel business. In these circumstances Panel members should:

Make clear the capacity in which they are speaking  
Refer the enquirer to relevant guidance, if available  
In the case of media enquiries, always refer these to the Secretariat or the Health Protection Agency press office.

Where a member is probed to give an opinion on Panel issues, members are advised to make it clear that this constitutes their opinion and is not a Panel recommendation and should not be taken to be Panel advice. Ideally this caveat should be put in writing.

## Appendix B – Procedure for dealing with an enquiry to UKAP



## Appendix C - UKAP enquiry pro forma

<b>Diagnosis</b>		
1	Infection diagnosed (please give genotype if known)	HIV/hepatitis B/hepatitis C
2	How did the infection come to be known about? eg screening, illness	
<b>Transmission</b>		
3	Have there been any transmissions from the healthcare worker to patients? If <b>yes</b> , please give details If <b>no</b> , please describe local investigation e.g. findings of cross-matching exercise	Yes/No
<b>Test results</b>		
4	When did the healthcare worker acquire the infection?	
5	Dates and results, including numerical levels and genotype (if known), of all relevant tests undertaken	
6	Date of last negative test for HIV/hepatitis B/hepatitis C?	
7	Is stored serum available from any previous tests? Has it been re-tested? If yes, please give results, including numerical levels	Yes/No
<b>Occupational information</b>		
8	In what specialty/ies has the healthcare worker been employed?	
9	Has the health care worker undertaken exposure prone procedures? If <b>yes</b> , please list them on a separate sheet, giving details of the healthcare worker's role	Yes/No
10	Has the healthcare worker ceased undertaking exposure prone procedures? If <b>yes</b> , on which date? If <b>no</b> , please give reasons	Yes/No
11	Have any needlestick injuries been reported? If yes, please give details	Yes/No
12	Has the healthcare worker complied with standard infection control procedures? If no, please give details	Yes/No

13	Has the healthcare worker undertaken appropriate continuous professional development?	
<b>Health care worker's health status</b>		
14	Is there any evidence of infection with other blood borne viruses? If <b>yes</b> , please give details	Yes/No
15	Is there evidence of any physical, neurological or psychological impairment? If <b>yes</b> , please give details	Yes/No
16	Is there evidence of any relevant medical condition eg eczema? If <b>yes</b> , please give details	Yes/No
17	Is the healthcare worker receiving treatment for the infection?	Yes/No
18	Date form completed	
	Signature	
	Job Title	

Please enclose this *pro forma* together with a covering letter stating your enquiry for UKAP and send to:

Dr Fortune Ncube, Medical Secretary, UKAP  
Health Protection Agency Centre for Infections  
61 Colindale Avenue, London NW9 5EQ  
Tel: 020 8327 6074  
Fax: 020 8200 7868  
E-mail: [helen.janecek@hpa.org.uk](mailto:helen.janecek@hpa.org.uk)

## Appendix D - Summary of UKAP advice on cases 1<sup>st</sup> April 2004 to 31<sup>st</sup> December 2006

Case	Specialty	Advice given	Response time in working days
HIV			
04/08	Midwife	i No patient notification exercise necessary. ii Confirmation of previous advice although midwife attached fetal scalp electrodes, since this is no longer considered an EPP.	37 98
04/13	Theatre scrub nurse	No patient notification exercise necessary.	17
04/15	Mental health student nurse	That the student could work in mental health since no documented case of BBV transmission from infected HCW to patient.	14
04/17	Paediatric nurse	i No patient notification exercise necessary provided it could be established that a general paediatric nurse would have been unlikely to have undertaken EPPs in the sites where the HCW had been employed. ii Confirmation that no patient notification exercise necessary following completion of the local incident management team's investigation and risk assessment.	56 42
04/22	Dentist	i No patient notification exercise necessary. Advice re non-exposure prone dental procedures. ii Advice that root canal treatment category 2 EPP. No patient notification exercise necessary because no category 3 EPPs. iii In view of reported psychological manifestations of disease, a patient notification exercise advised in respect of all EPPs performed over the previous 10 years. v No need to extend notification exercise to patients in other three dental practices sharing premises and decontamination equipment since risk of HIV transmission extremely low.	30 62 57 27
04/23	Dentist	No patient notification exercise necessary. Advice given re non-exposure prone dental procedures, subject to local risk assessment.	48
04/26	Student MH nurse	That the student could continue their studies and work as a mental health nurse. Issue of student's non-disclosure of HIV status beyond UKAP remit.	77
04/28	Anaesthetist	No patient notification exercise necessary.	15
05/02	Student MH nurse	No need to restrict student's practice nor to inform university of HIV status since MH nursing does not involve EPPs.	17
05/09	Midwife	No need to undertake patient notification exercise since no evidence of iatrogenic transmission.	40

05/14	Theatre nurse	Patient notification exercise advised in view of history of unreported needlestick injuries in relation to individuals who had undergone category 3 EPPs where nurse had assisted as first scrub assistant with no second surgeon present.	55
05/16	Dentist	No patient notification exercise necessary since no evidence of iatrogenic transmission. Advice also given on non-exposure prone dental procedures.	26
05/17	Midwife	No patient notification exercise necessary since no category 3 EPPs undertaken. No need for restriction of practice provided midwife undertook no EPPs.	12
05/18	Midwife	No patient notification exercise necessary since no evidence of iatrogenic transmission.	12
05/21	Community psychiatric nurse	Advice that nurse could continue working in community psychiatry.	24
05/24	Theatre nurse	UKAP advice unnecessary since no EPPs undertaken.	33
05/25	ENT surgeon	i Patient notification exercise recommended in respect of all EPPs undertaken over previous 10 years in view of evidence of cognitive impairment.	168
06/01	Scrub nurse	No patient notification exercise recommended since no evidence of transmission to patients and no category 3 EPPs undertaken.	9
06/08	Theatre nurse	No patient notification recommended in absence of evidence of transmission.	24
06/10	Theatre nurse	No patient notification recommended since no EPPs undertaken.	93
06/12	Paramedic	Intubation and cannulation are not exposure prone and might therefore be undertaken.	21
06/15	Midwife	No patient notification recommended since no EPPs undertaken.	53
06/17	Orthopaedic surgeon	Patient notification exercise going back 10 years recommended in 1 <sup>st</sup> instance in respect of category 3 EPPs because of HCW's AIDS-defining illness.	64
06/22	Midwife	No patient notification recommended since no EPPs undertaken.	39
06/27	Trainee anaesthetist	The HCW could continue their training subject to local risk assessment and issues of confidentiality.	15
Hepatitis B			
02/20	Surgeon	i Advice on HBV testing regime. ii Confirmation that no patient notification exercise necessary. iii That the surgeon could resume EPPs once viral load fell below 10 <sup>3</sup> .	49 26 11
03/06	Dentist	Confirmation that the HCW could not resume EPPs until one year after completion of anti-viral treatment, subject to viral load remaining below threshold for restriction of practice.	15
04/10	ODP	i Advice that ODP could train as a cardiac perfusionist since no EPPs would be performed in that role. ii Confirmation of previous advice. iii Advice re testing regime and that BBV-infected staff may work in areas where there is a significant risk of being bitten since no documented case of BBV transmission from infected HCW to patient.	20 11 95

04/20	General surgeon	i Preliminary precautionary advice given that patient notification exercise should be undertaken on basis that case contained element of fraud.	20
		ii Confirmation that category 3 EPP patients should be notified and that patient on whom perianal abscess performed should also be notified, on precautionary basis. That Robert Jones procedure category 1 EPP.	73
		iii Advice in response to new enquirer that category 3 EPP patients treated in another hospital should be notified and offered testing.	45
		iv Confirmation, in light of findings of local incident management team investigation, that no further action necessary as HCW had undertaken no category 3 EPPs as either main operator or first assistant.	55
04/21	Dental student	i Preliminary advice that the student should cease EPPs immediately.	30
		ii On receipt of further information, advised that the dentist could resume EPPs.	37
04/24	Midwife	No patient notification exercise necessary, but midwife should not perform EPPs whilst viraemic.	55
04/29	2 PRHOs	That the doctors should continue to have their practice restricted, but that a local risk assessment should be undertaken to determine whether or not EPPs would in fact be necessary during the course of their training.	68
04/32	O&G	i That the doctor could resume EPPs.	29
		ii That the doctor should be offered services from a different occupational health service.	45
05/01	Surgeon	i EPP categorisation of gastroscopy procedures: PEG insertion is EPP.	34
		ii Review of previous advice: PEG insertion is not an EPP.	56
05/04	A+E doctor	No need to undertake patient notification exercise since no evidence of iatrogenic transmission. HCW to be re-tested at 6-monthly intervals and might resume EPPs once viral load fallen to below 103.	33
05/07	Renal surgeon	Initial advice provided by Secretariat to restrict HCW's practice until outcome of testing and sequencing known.	1
05/08	Trainee doctor + ophthalmology	No need to restrict practice as HBV DNA level below threshold. Majority of ophthalmology procedures not EPPs.	26
05/10	Dentist	Advice re. timing of resumption of EPPs and re. which dental procedures are EPPs.	19
05/13	Theatre nurse	No need to undertake patient notification exercise since no evidence of iatrogenic transmission.	51
05/15	Orthopaedic surgeon	i Initial advice given that local risk assessment required before Panel could give advice.	1
		ii No patient notification exercise necessary since no evidence of iatrogenic transmission from the surgeon to a patient.	106
05/23	ENT surgeon	The surgeon could resume EPPs subject to annual re-testing in accordance with the guidance.	30
06/03	Renal nurse	No patient notification exercise recommended. HCW could continue peritoneal dialysis as it is not an EPP.	99
06/11	Orthopaedic surgeon	No patient notification exercise recommended subject to confirmation of genotype of HCV positive patient with other risk factors.	23

06/21	A&E surgeon	No patient notification exercise recommended as past HBV infection resolved.	57
Hepatitis C			
02/24	O&G	i Advice to extend patient notification exercise to 1987, when HCW began work in UK, because of one probable HCW-to-patient HCV transmission.	39
		ii Clarification of advice on O&G EPP categorisation.	32
		iii Advice on categorisation of O&G procedures.	79
		iv Advice to extend patient notification to category 1 and 2 EPP patients since two probable HCW to patient transmissions detected.	
04/11	Plastic surgeon	No patient notification exercise necessary.	18
04/12	Paramedic	i No patient notification exercise necessary. Advice re EPPs in emergency health work.	49
		ii Advice confirmed on basis that local risk assessment ultimate determinant re. restriction of practice.	41
04/14	Care worker in special school	No need to restrict worker's practice since no documented case of BBV transmission from infected HCW to patient.	5
04/16	Orthopaedic surgeon	i No patient notification exercise necessary. Advice on non-exposure prone orthopaedic procedures.	75
		ii Advice re testing regime before resumption of EPPs possible.	14
04/18	Midwife	No patient notification exercise necessary.	75
04/19	O&G + midwife	i That a patient notification exercise should be undertaken back to 1981 in respect of category 3 EPPs, on basis of staged approach. Advice on the categorisation of O&G procedures.	17
		ii That a midwife assisting with the lookback who had been a patient of the HCW should be offered testing in advance of other patients. No need to restrict midwife's practice before receipt of negative test result unless EPPs undertaken.	3
		iii That the advice to extend the patient notification exercise back to 1981 remained unchanged, despite incompleteness of theatre and labour ward records.	42
		iv Advice that the patient notification exercise should be extended back to the date when the HCW first started work in the UK remained unchanged.	12
		v In response to a new enquirer, that Panel advice unchanged ie. implementation of Panel advice is a matter for local decision.	69
		vi To extend the patient notification exercise to include category 1 and 2 EPPs.	
04/25	A+E SHO	That the doctor could continue working in A+E and might train in obstetrics & gynaecology, provided that they did not undertake EPPs, as determined by a local risk assessment.	10

04/27	Surgeon + herniorraphy	<p>i That all herniorraphy procedures are exposure prone, including those performed laparoscopically.</p> <p>ii Confirmed advice that all herniorraphy procedures are exposure prone.</p> <p>iii No patient notification exercise necessary as no evidence of HCW to patient transmission.</p> <p>iv The HCW could now resume EPPs as they remained HCV RNA negative six months after having concluded anti-viral treatment.</p>	<p>22</p> <p>27</p> <p>13</p> <p>20</p>
04/30	Dental nurse	Advice not in the end required.	
04/31	Orthopaedic surgeon	No patient notification exercise necessary.	43
05/03	Orthopaedic surgeon	No need to undertake patient notification exercise since no evidence of iatrogenic transmission.	30
05/06	Maxillo-facial surgeon	No need to undertake patient notification exercise since no evidence of iatrogenic transmission.	17
05/11	Gynaecologist	No need to undertake patient notification exercise since no evidence of iatrogenic transmission.	9
05/12	Midwife	No need to undertake patient notification exercise since no evidence of iatrogenic transmission.	37
05/19	Dentist	<p>i That:</p> <ul style="list-style-type: none"> <li>▪ The dentist had a statutory duty to disclose their patient records to the local investigating team.</li> <li>▪ All the dentist's patients should be notified and offered testing for HBV, BCV and HIV because of a history of poor infection control.</li> <li>▪ The dentist should be reported to the General Dental Council.</li> </ul> <p>ii Confirmation that, despite the HCW now having tested negative for HBV and HIV, the patient notification exercise should proceed in view of the history of poor infection control.</p>	<p>39</p> <p>8</p>
05/20	Trainee urologist	<p>No patient notification exercise necessary since no documented evidence of iatrogenic transmission from the doctor to a patient.</p> <p>Advice given re. categorisation of urology procedures.</p>	<p>33</p> <p>38</p> <p>35</p>
05/22	Dentist	No patient notification exercise needed since no documented evidence of iatrogenic transmission from the dentist to a patient.	49
05/26	A&E nurse	Subject to local risk assessment by occupational health department, venepuncture from the usual sites is not exposure prone. Nor is superficial suturing, if carried out following proper training and using correct techniques and equipment. However, deeper suturing and resuscitation carry a risk of bleed-back because of potential injury from broken bone and should not be undertaken by a restricted HCW.	49
05/27	Theatre nurse	No patient notification exercise needed since no documented evidence of iatrogenic transmission from the nurse to a patient.	41
06/02	Theatre nurse working as 'scrubbed nurse practitioner'	The procedures undertaken by the HCW in elective orthopaedics were not EPPs, subject to local risk assessment.	38

06/04	HCV Locum surgeon	i No patient notification exercise recommended in the absence of evidence of iatrogenic transmission. ii No patient notification exercise recommended since no evidence of transmission to patients.	14
06/05	Doctor	No patient notification exercise recommended in the absence of evidence of iatrogenic transmission despite breach of infection control.	38
06/07	Obstetrician & gynaecologist	Sufficient to investigate only HCV cases although majority of 'non-A/non-B' cases would be infected with HCV.	93
05/05	Person posing as dentist	Advice that all individual's patients to be contacted and offered testing for hepatitis B and C and HIV because of risk of transmission between patients as a result of alleged substandard infection control procedures.	25
HBV + HIV			
06/06	Orthopaedic surgeon	Patient notification exercise advised to be undertaken going back to date HCW began work in UK, offering testing for both HBV and HIV.	34

## 9. References

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