Attitude to patients with blood borne viruses
This evidence summary aims to locate and summarise evidence to identify contemporary attitudes of UK dental professionals in treating patients with blood borne viruses. It does not include detailed descriptions of the studies cited nor does it include information that was not presented in the literature.

The Curious about website encourages dental professionals to raise issues where a review of the available evidence would provide a useful resource for other dental professionals. Where there is a lack of evidence, the topic is considered for research and an award is made available.

These activities are sponsored by the Shirley Glasstone Hughes Fund, a restricted fund within the BDA Trust Fund. The focus of the fund is research into primary care dentistry and aims to generate a body of relevant research for practising dentists.
Key findings

- Few studies have been undertaken in the UK to understand the attitudes of dental health professionals to treating BBV patients.
- Dental professionals have diverse attitudes to treating patients with BBV and these attitudes are influenced by a number of factors.
- Providing education to dental professionals may improve the attitude to treating those with BBV.

Review question

This evidence summary was prepared in response to the following question: What are the contemporary attitudes of dental professionals in treating patients with blood borne viruses?

Key terms

Attitude: A settled way of thinking or feeling
Blood borne virus: Viruses carried in the blood that can be spread from one person to another
Dental professionals: Dentists, clinical dental technicians, dental nurses, dental hygienists, dental technicians, dental therapists or orthodontic therapists.

The case for action

Viruses covered by the term blood borne virus (BBV) include the causative agents of human immunodeficiency virus (HIV) and some viral hepatitis infections (e.g. HBV, HCV, HDV and HGV). HBC, HCV and HIV (Table 1) are all considered to be of public health importance in the UK and, of the BBV, are most important to UK dentists.

Receiving oral care is particularly important to those living with a BBV infection. Combination antiretroviral therapy (cART) in HIV can improve oral health and stabilise or cure existing oral conditions, but complications can occur. Antiretroviral drugs together with other medications can result in xerostomia causing significant oral problems and a poorer quality of life. cART is relatively new so the full effect on oral health is not clear though side effects have been suggested.

Xerostomia incidence is higher in hepatitis C patients than in healthy persons and up to 60 per cent of people with chronic HCV infection experience oral health problems.

GDC guidance and BDA advice is clear with regards to the dental treatment of BBV patients. Dentists are responsible for putting patients’ interests first and all patients should be treated fairly and not discriminated against because of their disability or health. The BDA advises that people living with HIV and/or the hepatitis viruses who are otherwise well may be treated as a matter of routine in primary care dental settings without any restrictions or modification to their treatment. The Equality Act of 2010 prevents all healthcare providers in England, Wales and Scotland from using a person’s hepatitis status, if there is substantial and long-term adverse effect on ability to do normal day-to-day activities, or HIV status, as grounds for e.g.

- Refusing to take on an individual as a patient.
- Providing a service that is of a worse quality or in a worse way than it would usually be provided.
- Putting an individual at any other disadvantage.

Despite this legislation, universal infection control and advances in knowledge and understanding of BBV there is evidence to suggest that some dentists are hesitant, unwilling or reluctant to treat patients falling into this group. The illogical nature of this is illustrated by some people with BBV being unaware of their status; an estimated 26 per cent of HIV and the majority of UK hepatitis B and C carriers are undiagnosed.

<table>
<thead>
<tr>
<th>Virus</th>
<th>Vaccination</th>
<th>PEP</th>
<th>Treatment</th>
<th>UK occurance</th>
<th>Possible outcomes</th>
<th>Chance of infection</th>
</tr>
</thead>
<tbody>
<tr>
<td>HBV</td>
<td>Yes</td>
<td>Yes</td>
<td>Antiviral therapy</td>
<td>1–2%</td>
<td>Hepatitis, Liver cirrhosis, Hepatocellular carcinoma, Liver failure</td>
<td>30% (non-immunised)</td>
</tr>
<tr>
<td>HCV</td>
<td>No</td>
<td>Yes</td>
<td>Antiviral therapy</td>
<td>0.4 – 1%</td>
<td></td>
<td>3%</td>
</tr>
<tr>
<td>HIV</td>
<td>No</td>
<td>Yes</td>
<td>Antiretroviral therapy</td>
<td>100,000</td>
<td>HIV infection, AIDS</td>
<td>0.3%</td>
</tr>
</tbody>
</table>

Table 1: Overview of HIV, HBV and HCV. * for an individual
The evidence

Over the past 20 years, few studies have been undertaken in the UK to understand the attitudes of dental health professionals to treating BBV patients. Evidence indicates that dental professionals have diverse attitudes to treating patients with BBV and that these attitudes are influenced by a number of factors. Providing education to dental professionals may be one method of improving the attitude to treating those with BBV.

Studies covered viral hepatitis (22-26) and HIV patients (Appendix 1). All investigated the attitude of dentists with some discussing the attitude of their employees. Attitudes of dental nurses and hygienists are included but not any other dental auxiliary.

Polarised attitudes to treating BBV patients exist. Practitioners vary from being happy and having no hesitation in providing treatment to not wishing to treat people within this population. An overall positive attitude towards treating patients with HIV was seen in one study with another implying an overall negative attitude. The majority of respondents from two studies covering HBV held positive attitudes to treating HBV patients with a further study giving an overall negative attitude. Two studies covered HCV presenting an overall negative attitude. Further attitudes reported in the studies have been grouped according to topic and summarised below.

Setting:
Some dental practitioners intend to refer patients with BBV to other practitioners while others believe that patients with BBV should be treated only by specially trained practitioners or in specialised or hospital based clinics.

Professional:
Some dental professionals feel they have either an ethical responsibility/obligation to treat BBV patients or that treating HIV patients is part of their role. Others feel they lack the expertise, knowledge or training to treat this group of patients.

Infection control:
Occupational transmission is a reason given for refusing/being hesitant to treat BBV patients. While a large majority of practitioners believe their infection control procedures to be adequate to prevent cross-infection, some do not.

Business:
Time and financial reasons are cited behind the reluctance to treat BBV patients. The time taken to treat such patients resulted in fewer patients being seen and BBV patients are viewed by some to be a threat to their business in that treating them would possibly lead to a loss of other patients.

A number of factors correlate with the attitude of dental professionals to treating BBV affected patients:
- Knowledge/training on BBV
- Time in practice
- Age of practitioner
- Type of practice
- Number of dentists in the practice
- Past experiences e.g. inoculation injuries, BBV patients

Dental health professionals expressed a wish for more education/training covering HIV which is effective in improving the attitude of dental professionals towards BBV patients.

Methods

Search strategy
The following resources were searched:
- MEDLINE (Ovid and Pubmed)
- TRIP
- Cochrane (DARE, HTA Database, Cochrane reviews)
- PsycINFO
- Cinhil
- Scopus
- Web of Knowledge
- Centre for Reviews and Dissemination

Search terms for Ovid MEDLINE included: HIV Infections; Hepatitis, Viral, Human; Dentists; Dental Staff; Dental Auxiliaries; “Attitude of Health Personnel”; Dentists/es [Ethics]; Dentists/px [Psychology]

Studies were included if they covered the attitude of dental professionals to treating patients with HIV or blood borne viral hepatitis and excluded if it was not clear that participants were being questioned on HIV or AIDS, if the study population was dental students or not UK based, or if the publication was a letter, editorial, case study or comment. For the purpose of this summary an attitude was defined as ‘a settled way of thinking or feeling’.

Searches were limited to publications from 1993 – 2013 to reflect contemporary attitudes. No limits were placed on research methodology or article language. Hand searching of reference lists and grey literature was carried out.

Searches conducted between January and March 2013.
Results
Five publications were found (Appendix 1) and all had weaknesses. Only data conclusively relating to HIV or the hepatitis viruses were included. Three studies used postal questionnaires and one study also interviewed some participants. Additionally one study surveyed participants before and after an HIV workshop for dental team members.

References


### Appendix 1

<table>
<thead>
<tr>
<th>First author, date</th>
<th>Study type</th>
<th>Sample (n/rtd,% and population)</th>
<th>Factors correlating with attitude to treating BBV patients</th>
<th>Salient findings</th>
</tr>
</thead>
</table>
| Hudson-Davies, 1995(26) | Postal questionnaire | 1229/917 (75%) (546 analysed) Dentists in North Western Health region | • Knowledge  
• Size of practice | 66% would continue treatment for HBV carriers |
| Lewis, 1996(27) | Questionnaires at HIV workshop | 29/29 (100% - prior to workshop) Dental team members in Merton, Sutton and Wandsworth | N/A | (prior to workshop)  
• 48% believed it was part of their role to provide treatment to HIV patients  
• Factors affecting attitudes included: occupational transmission; lack of knowledge, expertise and facilities; time involved; prohibitive cost; fear of regular patients leaving practice (post workshop)  
• 59% of participants would be more likely to provide assistance to HIV patients  
• Associated behavioural changes were reported a year later by some participants |
| Crossley, 2004 (22,23) | Postal questionnaire and follow up interview | 330/152 (46%) questionnaire to all dentists in South Cheshire region; 15 of these interviewed | • Age  
• Practice type  
• Years in practice  
• Knowledge/education | 48% would accept a HBV patient with ‘no hesitation’ (39% for HCV)  
43% would accept a HBV patient with ‘some hesitation’ (38% for HCV)  
66% believed they had an ethical responsibility to treat HIV patients  
36% agreed that they should have the right to refuse treatment due to patients HIV status  
Factors affecting dentists’ attitudes included: loss of other patients; financial and time implications; occupational transmission |
| Kellock, 2002(29) | Postal questionnaire | 121/79 (65.3%) dentists in north Nottinghamshire | • Years experience | 36.7% would accept new HBV patients onto their list  
32.9% would accept new HCV patients onto their list  
27.8% would accept new HIV patients onto their list  
68.4% - 77.2% would maintain existing patients on their list who were subsequently diagnosed with BBV; 21.2% - 25.3% would not  
49.3% (n=10) felt all dental practitioners should treat patients with BBV |