



Hepatitis B Vaccine advice for dental professionals

As you may be aware there is a global shortage of hepatitis B vaccine which is currently impacting severely on the UK supply, a situation that is likely to continue until early 2018. To ensure that stock is available for those individuals at highest and most immediate risk of exposure to hepatitis B during the period of constraint, Public Health England (PHE) has developed temporary recommendations¹ to support clinicians undertaking an individual risk assessment, which have been accepted by all devolved administrations in the UK.

Implications for dentists and dental hygienists/therapists

Most dentists and hygienist-therapists will have been fully vaccinated during training and then tested to confirm response to the primary course. Those who commenced work as vocational trainees (VTs) in August may be due a routine booster (normally given around five years after the primary course). The benefit of this booster in known responders to vaccination is small, and therefore it can be safely deferred until early 2018. Not having received the booster should not be a barrier to ongoing work involving exposure prone procedures.

Dentists and hygienist-therapists coming from non UK universities, if not already vaccinated, should be offered pre-exposure vaccination as per PHE temporary recommendations¹. Vaccination and serology history, and where appropriate anti-HBs levels, should be checked, to avoid unnecessary vaccine use.

Implications for dental nurses

During the ongoing period of temporary recommendations, this staff group is considered a lower priority. Although dental nurses are normally eligible for vaccination, because of the potential for infection through their chairside assistance and instrument decontamination duties, they do not pose a threat of onward transmission to patients (see below).

¹ A copy of the PHE temporary recommendations can be obtained at https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/639145/Hepatitis_B_vaccine_recommendations_during_supply_constraints__.pdf

A reversion to the practice of making hepatitis B vaccine available to dental nurses for their own protection, will occur when vaccine supplies resume.

The advice for dental professionals was prepared by the following list of individuals, on behalf of the national Incident Management Team - Dr Kirsty Roy (Health Protection Scotland), Professor Jeremy Bagg (University of Glasgow Dental School), Mr Abdul Haleem (General Dental Practitioner), Dr Kirsty Foster, Dr Sandra White (Public Health England), Mr Richard Harris (British Dental Association) and Ms Emmie Galilee (Health and Safety Executive).

The following FAQs may help to clarify how the current temporary restrictions apply to your dental practice and staff members.

Why can my dental nurse not be vaccinated when they are exposed to the blood and body fluids of patients?

In the dental setting, while all dental staff are at risk of being exposed to the blood or body fluids of a patient, the likelihood of such an exposure being recognised and managed post-exposure is high. Dental nurses are viewed as a separate group from dentists and dental hygienists/therapists, because the latter undertake exposure prone procedures (EPPs). These are procedures where injury to the HCW could result in the worker's blood contaminating the patient's open tissues. This is described as 'bleed-back'.

By contrast, dental nurses are not indemnified to perform EPPs (as per GDC guidance ²) There should, therefore be no risk of onward transmission of hepatitis B to a patient should a dental nurse unknowingly acquire infection.

With the current restrictions on vaccine availability, prioritising vaccination will ensure sufficient stocks for those who are at greatest risk, which includes those who require post exposure prophylaxis following an occupational exposure. This would include dental nurses should they suffer a sharps injury.

Can dental professionals work if they are not vaccinated?

Yes. Health clearance guidance, applicable to dental professionals, recommends 'offering hepatitis B vaccine' and under normal circumstances, it would be strongly recommended that all dental professionals be vaccinated. Additional health clearance for new dental professionals who will perform EPPs (i.e. dentists and dental hygienists/therapists) requires evidence of absence of hepatitis B infection, which is straightforward to demonstrate via a blood test.

² A copy of the GDC Scope of Practice guidance can be obtained at <https://www.gdc-uk.org/api/files/Scope%20of%20Practice%20September%202013.pdf>

Dental professionals who are unable to show evidence of immunity to Hepatitis B, i.e. those for whom vaccination is contra-indicated, those who decline vaccination or those who are non-responders to vaccine should not perform EPPs unless shown to be non-infectious; they should be tested for hepatitis B infection on an annual basis thereafter to maintain EPP clearance.

What are my responsibilities as an employer?

The risks from exposure to BBVs must be assessed under COSHH Regulations, and appropriate measures to protect workers and others from infection risks must be implemented. If a risk assessment shows that there is a risk of exposure to BBVs, and an effective vaccine exists and is available, then under normal circumstances, immunisation should be offered to those not already immunised. At present, the vaccine is restricted because of the global shortage.

Even under normal circumstances of availability, HSE acknowledge that workers may choose not to have the hepatitis B vaccine, and provides guidance for what the employer should do if an employee does not wish to be vaccinated or does not respond to vaccine (COSHH ACOP L5)

'Employees may not wish to take up the offer of immunisation, or they may not respond to vaccine and will, therefore not be immune. If so, employers should consider the effectiveness of the other controls and consider whether any additional controls should be implemented to allow them to work safely'.

This guidance could be applied to the current situation.

In the COSHH hierarchy of control measures, immunisation as protection against infection at work is the last line of defence and other controls should be available. Regardless of the hepatitis B vaccination status of its employees, practices should be adequately controlling the risk of exposure to blood or blood products and therefore the risk of acquiring hepatitis B, hepatitis C and HIV. Certainly an employer could not be held responsible for being unable to arrange hepatitis B vaccination for staff because of the existing shortage, but it is essential that all other measures are taken to minimise risk of infection.

In particular practices must ensure:

- the use of infection prevention and control measures by all staff
- the use of safety needles (where reasonably practicable), and near patients sharps disposal units for clinical staff

- the prompt reporting of any significant occupational exposure (especially for lower risk staff for whom vaccination has been deferred), so that timely risk assessment for post exposure prophylaxis can be undertaken.

What should I do if my dental nurse has to defer their hepatitis B vaccine?

If your dental nurse has to defer their hepatitis B vaccine, they should be managed in the same way as a dental healthcare worker who is a non-responder to the hepatitis B vaccine:

- discuss with the dental nurse the risks of infection from BBVs, in particular that hepatitis B is the most infectious agent and that temporarily the highly effective vaccine is not available
- consider the effectiveness of the other controls in place, and consider whether any additional controls should be implemented to allow them to work safely
- ensure that the dental nurse is made aware of the importance of standard infection control procedures and, in particular, procedures for prevention of sharps injuries
- ensure that the dental nurse is aware of the practice policy for managing sharps injuries.

What do I do if an employee reports an occupational exposure to blood or body fluids?

Regardless of the employee's vaccination status, AFTER an exposure incident, follow your local procedures to ensure that a timely risk assessment for all BBVs is undertaken, and vaccination and/or immunoglobulin offered (if appropriate). Hepatitis B vaccine will be made available for such incidents on the basis of an individual risk assessment.

To prevent unnecessary vaccine use post exposure during the ongoing period of temporary recommendations:

- if the hepatitis B status of the source is unknown, and permission from the source can be obtained, you should encourage the source to attend A & E or their GP to be tested urgently.

- the injured employee may be tested for hepatitis B markers (HBsAg, anti-HBc and/or anti-HBs) which may confirm existing protection and/or existing infection.

Your local Occupational Health Department will be able to provide any additional advice, please visit <http://www.nhshealthatwork.co.uk/find-providers.asp> and you can visit <http://www.hse.gov.uk/healthservices/needlesticks/resources.htm> for more information.

Can an injured employee work during the follow-up period?

Yes. Whilst awaiting serological follow up, a dental professional need not be restricted from practising. This is because the combined risk of a dental professional becoming infected and then transmitting to a patient is too small to merit such a restriction.

If a dental nurse has a significant sharps injury am I liable if they have not been vaccinated?

Under the Health and Safety at Work etc. Act 1974 certain obligations are placed on employers with regard to health and safety such as the general duty on employers 'so far as is reasonably practicable' to protect the health, safety and welfare at work of all employees.

The Health and Safety at Work etc. Act 1974 also places a duty on employees to take reasonable care of their own health and safety, and that of anyone who could be adversely affected by their 'acts or omissions at work' and to co-operate with their employer in taking steps to meet legal requirements.

If a practice-owner can demonstrate that they have done everything in their power 'so far as is reasonably practicable' to comply with the various obligations placed on them, then they would have discharged their duties under the Health and Safety at Work etc. Act 1974.

When will vaccine supplies return to normal?

The situation is under constant review, to ensure that available supply is able to match the clinical need for the rest of the year. Further updates and information as they become available will be posted on the gov.uk webpage: hepatitis B vaccine recommendations during supply constraints.

What do I need to do when vaccine supplies return to normal?

Once hepatitis B vaccine supplies return to normal it is important to ensure that any employees who have had their hepatitis B vaccine deferred be offered vaccination and its uptake encouraged as soon as possible.

All practice-owners have an ongoing duty under COSHH regulations to establish if an employee is at risk of exposure to BBVs. Hepatitis B vaccine must be offered to all staff at risk if not already immunised.

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