

# WELSH HEALTH CIRCULAR



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**For Action by:**

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## **Pertussis – Occupational Vaccination of Healthcare Workers**

Dear Colleague

To help protect babies from pertussis, from August 2019, healthcare workers in NHS Wales who have not received a pertussis-containing vaccine in the last 5 years and who have regular contact with pregnant women and/or young infants will be eligible for a pertussis containing vaccine as part of their occupational health care.

In 2016, the Joint Committee on Vaccination and Immunisation (JCVI) recommended that healthcare workers in direct contact with vulnerable patients, i.e. pregnant women or infants, are priority groups for immunisation. However, due to a global shortage of pertussis vaccine, it has not been possible to implement the JCVI advice to date. Supplies of vaccine are now improving and pertussis vaccine is available to order for recommended staff groups.

Arrangements should be made by NHS Wales organisations to obtain adequate vaccine supplies from manufacturers/suppliers and to offer pertussis vaccination to priority groups in line with the guidance in the attached annex. This is based on information published by [Public Health England](#) and includes information on:

- the benefits of vaccinating healthcare workers
- recommended groups for vaccination
- when healthcare workers should be vaccinated

Vaccination of healthcare workers will not only help prevent transmission of pertussis infection to vulnerable infants in healthcare settings but it can mitigate against the often disruptive and resource-intensive consequences of such incidents.

Yours sincerely,



**Dr Frank Atherton**  
**Chief Medical Officer / Medical Director NHS Wales**

## **Further Information**

### **Pertussis**

Pertussis (whooping cough) is an acute bacterial respiratory infection. Initial symptoms resemble a common cold which can progress to include spasmodic coughing, choking spells, and vomiting after coughing.

The risk of severe complications is highest in very young babies; nearly 90% of the deaths from pertussis in the last 10 years have been in infants aged 3 months or less who cannot be fully protected by immunisation.

In adults, the characteristic 'whoop' noise can be absent on coughing, but it is usually an unpleasant illness that can be difficult to diagnose; sometimes the only symptom is a cough which can be severe and may persist for months.

The bacteria are present in the back of the throat and can be spread by coughing and sneezing. An infected person can pass the infection to other people for 21 days from the onset of their symptoms if not treated with appropriate antibiotics.

### **Pertussis and healthcare workers**

Healthcare workers (HCWs) can be an important source of infection to vulnerable infants. In recent years, the number of reported cases and incidents linked to healthcare settings in England has increased. In addition to putting vulnerable infants at risk of disease, such incidents have been disruptive and resource-intensive requiring staff exclusion, extensive contact-tracing, antibiotic chemoprophylaxis and vaccination in line with Public Health England ([PHE](#)) [guidelines](#).

### **Benefits of vaccinating healthcare workers**

Vaccination of HCWs with pertussis vaccine can help prevent nosocomial transmission to infants. Therefore, in 2016, [the Joint Committee on Vaccination and Immunisation \(JCVI\)](#) advised that HCWs with direct contact with vulnerable patients (pregnant women or infants) are priority groups for immunisation.

However, due to a global shortage of pertussis vaccine, it has not been possible to implement the JCVI advice to date. Supplies of vaccine are now improving and pertussis vaccine will become available to order by NHS Occupational Health Departments for recommended staff groups.

### **Recommended groups for vaccination**

The JCVI has advised that healthcare workers who have not received a pertussis-containing vaccine in the last 5 years and have regular contact with pregnant women or young infants (defined as under three months of age) are prioritised for occupational vaccination.

Given the variability in intensity and frequency of contact with pregnant women or infants and the current limited availability of vaccine, these HCWs are categorised into 3 groups who will be offered the vaccine in order of priority.

### **Priority group 1**

HCWs with regular and close clinical contact with severely ill young infants and women in the last month of pregnancy. This includes:

- clinical staff working with women in the last month of pregnancy (for example midwifery, obstetrics and maternity settings)
- neonatal and paediatric intensive care staff who are likely to have close and or prolonged clinical contact with severely ill young infants <sup>1</sup>

### **Priority group 2**

HCWs with regular clinical contact with young unimmunised infants in hospital or community settings. This includes:

- general paediatric staff
- paediatric cardiology staff
- paediatric surgery staff
- health visitor staff

### **Priority group 3**

HCWs with intermittent clinical contact with young unimmunised infants in the community. This includes HCWs in general practice.

### **When healthcare workers should be vaccinated**

All HCWs in 'priority group 1' are recommended to be offered the vaccine from August 2019.

HCWs in this group who are pregnant should be vaccinated as recommended under the maternal pertussis programme, ideally between 20 and 32 weeks, although vaccine can be given from as early as 16 weeks.

Vaccine demand will be closely monitored and extension of vaccine to priority groups 2 and 3 will occur once stocks allow. Eligible HCWs should be given a single booster dose. There are currently no recommendations for additional booster doses.

### **The vaccine**

The recommended vaccines are acellular pertussis-containing vaccines Repevax and Boostrix-IPV. These are combination vaccines that, in addition to pertussis antigens, contain diphtheria toxoid, tetanus toxoid, and inactivated poliovirus.

## **Repevax**

Repevax diphtheria/tetanus/5-component acellular pertussis/ inactivated polio vaccine (dTaP/IPV) – manufactured by Sanofi Pasteur.

Occupational Health departments should contact 0800 854 430 (option 1) or [gb-vaccinecustomerservices@sanofi.com](mailto:gb-vaccinecustomerservices@sanofi.com) to order vaccines.

## **Boostrix-IPV**

Boostrix-IPV, diphtheria/tetanus/3-component acellular pertussis/inactivated polio vaccine (dTaP/IPV) – manufactured by GlaxoSmithKline.

Occupational Health departments should contact AAH Pharmaceuticals on 0344 561 8899 (option 1) to order vaccines

All pertussis-containing vaccines are supplied as single doses of 0.5 ml. They are inactivated so do not contain live organisms and cannot cause the diseases they protect against.

Vaccines should be stored in the original packaging at +2°C to +8°C and protected from light.

## **Contraindications**

There are very few individuals who cannot receive pertussis-containing vaccines. When there is doubt, rather than withhold vaccine, appropriate advice should be sought from:

- their consultant (if applicable)
- local Screening and Immunisation team
- consultant in Health Protection

The vaccines should not be given to those who have had:

- a confirmed anaphylactic reaction to a previous dose of a diphtheria, tetanus, polio or pertussis-containing vaccine
- a confirmed anaphylactic reaction to neomycin, streptomycin or polymyxin B (which may be present in the vaccine in trace amounts)

## **Precautions**

Minor illnesses without fever or systemic upset are not valid reasons to postpone immunisation. If an individual is acutely unwell, immunisation should be postponed until they have fully recovered.

Pertussis-containing vaccines are recommended for all pregnant women from 16 weeks gestation and can be given to those who are breastfeeding. Pertussis

vaccines can also be given to those with immunosuppression and HIV infection, but they may not make a full antibody response and may require re-immunisation on specialist advice.

### **Incidents and outbreaks in healthcare settings**

Guidelines for the [Public Health Management of Pertussis in Healthcare Settings](#) still apply and are available to view and download.