Gateway reference number 18052

Dear Doctor,

In the lead up to winter it is particularly important to make sure we are taking care of our own health so we are able to provide the best care to patients, during our busiest season.

Now is the time of year to take an extra precaution: **please get vaccinated against influenza**.

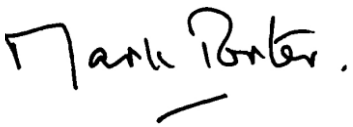
Doctors play a vital role in ensuring that as many frontline staff as possible get vaccinated. If you lead by example and encourage other staff to get vaccinated, your workforce will be protected against flu and won't pass this on to patients. Doctors can help everyone in their team understand the importance of vaccination and reassure staff and patients alike of the safety of the flu vaccine.

We are sure that you will be aware of the benefits of immunisation and the myths that surround the flu vaccine. Please find time to read the supporting evidence on the importance of influenza vaccine for doctors.

For more information about the national staff facing seasonal flu campaign visit http://www.nhsemployers.org/flu

Thank you for your support in protecting patients and staff this winter.

Professor Dame Sally Davies
Chief Medical Officer



Dr Mark Porter
Chair of Council, BMA

# The importance of influenza vaccination for doctors

Every year influenza vaccination is offered to NHS staff as a way to reduce the risk of staff and patients contracting and transmitting the virus. Vaccine uptake across NHS organisations varies from below 10% to above 90% with a national uptake of 45% (2011/12). This document summarises the evidence showing why vaccination of doctors and healthcare workers is important.

## Why should we worry about influenza?

Influenza can cause a spectrum of illness from mild to severe, even among people who are previously well. There were 457 confirmed deaths from influenza reported in 2009-10 and 602 in 2010-11[i,ii]. Nearly 9000 patients were admitted to hospital with influenza in England in 2010-11, of whom 2200 were admitted to intensive care[2,iii]. While the impact of influenza was less marked during the 2011-12 season, influenza remains unpredictable and it is hard to forecast the severity of future influenza seasons.

These figures are high for a disease that is largely preventable through vaccination. As a comparison, hepatitis B – vaccination against which is an expectation of doctors working in the NHS – causes around 60 deaths per year[iv]. Influenza deaths are also high compared to other infectious diseases: invasive meningococcal disease causes around 60-80 deaths per year[4].

## Why is vaccination important for clinical staff?

*Protecting yourself*

Frontline healthcare workers are more likely to be exposed to the influenza virus, particularly during winter months when some of their patients will be infected. It has been estimated that up to 1 in 4 healthcare workers may become infected with influenza during a mild influenza season, a much higher incidence than expected in the general population[v].

Even previously healthy people and the young can develop severe complications from influenza; up to one third of deaths in 2009-10 and 2010-11 were in people considered healthy[vi], with many of the cases of severe illness in those aged under 65 years[2,5,vii,viii,ix] (89% of hospital admissions, 87% of critical care beds occupied and 79% of deaths).

*Protecting your patients*

Influenza is a highly transmissible infection. The patient population found in hospital is much more vulnerable to the severe effects of influenza[x]. Healthcare workers may transmit the illness to patients even if they are mildly or sub-clinically infected. There are reports of influenza outbreaks within hospitals and other care settings where transmission from healthcare workers to patients is likely to have facilitated spread of the disease[xi,xii,xiii]. In one

outbreak 118 staff and 49 patients were infected[11]. A second resulted in six infections among neonates and one death[13].

'Herd-immunity' of healthcare workers to reduce the likelihood of introduction and transmission of the virus in care settings is an effective way to prevent this. Settings randomised to high levels of immunisation had reduced rates of flu-like illness, hospitalisation and mortality in the elderly in comparison with controls[xiv,xv,xvi,xvii].

*Protecting your friends, family and colleagues.*

Some healthcare workers, aware that they are more likely to become infected with influenza, get the flu vaccination in order to protect other family from influenza, particularly young children or other relatives who may fall into at-risk groups[xviii].

## Advice from professional bodies

The Green Book recommends that healthcare workers directly involved in patient care be vaccinated annually[10]. It is also encouraged by the General Medical Council as part of good medical practice[xix], and by the BMA[xx].

## How effective is the vaccine?

The vaccine is 60-90% effective depending on the age and health of the person receiving it[xxi,xxii,xxiii], and on how well the circulating influenza strains match the composition of the vaccine.

## How safe is the vaccine?

The most common side effect is bruising or local muscular stiffness (10-64%) at the injection site[xxiv]. Other reported side-effects after the vaccine include fever, malaise and myalgia. These are short lived and their incidence may not be much greater in comparison with those who receive a placebo vaccine (fever 3% vs 1%; malaise 9% vs 6%; myalgia 18% vs 10%)[xxv]. Some of these side effects were particularly common during the pandemic, as the vaccines used then had an adjuvant. The present trivalent vaccine does not contain adjuvants so such side effects will be less common.

Although it is common for people to complain that the vaccine gave them influenza, this is not possible. It is most likely that flu-like symptoms experienced by people who have just had the vaccine are not caused by influenza but are the result of many other circulating viruses that can produce influenza-like symptoms. It also takes up to two weeks to develop immunity after vaccination, so infection could occur during this window.

## What about severe reactions?

The risk of having an anaphylactic reaction to the seasonal influenza vaccine is very rare, but those who have had a severe reaction (anaphylaxis) to a previous dose of seasonal influenza vaccine or to any part of the vaccine should not receive it. Individuals who have egg allergy may be at increased risk of reaction to influenza vaccines. In recent years, inactivated influenza vaccines that are egg-free or have a very low ovalbumin content have become available. Patients who have either confirmed anaphylaxis to egg or egg allergy with uncontrolled asthma (BTS SIGN step 4 or above) can be immunised with an egg-free influenza vaccine. If no egg-free vaccine is available at the clinic, patients should be referred to specialists for vaccination in hospital using an inactivated influenza vaccine with an ovalbumin content less than 0.12 µg/ml. A split dose schedule may be required at the discretion of the supervising physician. Facilities should be available and staff trained to recognise and treat anaphylaxis. Vaccines with ovalbumin content more than 0.12 µg/ml or where content is not stated should not be used in egg-allergic individuals.

All other egg allergic individuals can be given egg-free vaccine or inactivated influenza vaccine with an ovalbumin content less than 0.12 µg/ml administered as recommended in primary care.

More detailed information on the characteristics of the available vaccines for 2012-13, including age indications and ovalbumin (egg) content can be found in the Seasonal Flu chapter of the Green Book.

## How is safety of the vaccines monitored?

As with all medicines in the UK, influenza vaccines require licensing by the Medicines and Healthcare Products Regulatory Agency (MHRA). Like other medical products, passive surveillance, using reports from yellow cards, is used to identify adverse events. The observed rate of adverse reports is compared to the expected rate, based on data from a general practice research database, after making allowance for under-reporting.

This is complemented by active surveillance, which uses very large population cohorts from primary care databases to proactively look at the risk of an adverse event which may be of concern. Comparisons are made between patterns of self-presenting illness to general practice in the period after vaccination compared to controls. Other countries have similar systems and data is pooled and reviewed at national and international levels.

## Why do some doctors refuse the vaccine?

There are a variety of reasons why staff decline the vaccine. A recent survey of healthcare workers in University Hospitals of Leicester and Leicestershire Partnership Trust[xxvi] found that one third of unvaccinated clinician respondents felt that universal infection control practices are sufficient. One third of unvaccinated clinician respondents reported they were not vaccinated because they have a good diet and/or take vitamins or supplements that work as well as or better than the influenza vaccine.

Vaccination is the best option for protecting yourself, your family and vulnerable patients from the virus. Although infection control measures are vital and a good diet is encouraged, neither action alone will prevent influenza.

## When should I be vaccinated?

The new vaccines should be available from the end of September 2012 and any healthcare worker with direct patient contact is urged to get vaccinated as soon as possible. Your local occupational health department is likely to lead on delivery so the advice is to contact them or the appropriate team in September. Any healthcare workers in at-risk groups can receive the vaccine at their GP, but are asked to please report this vaccination at work to ensure inclusion in uptake figures recorded for the Department of Health.

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