Position Statement:  
Influenza Immunisation for Employees (excluding health and social care)

Scope
This position statement is aimed at occupational physicians responsible for the care of workers outside of the health and social care sector.

Background
Over 200 viruses cause ILI (influenza like illness); confirmed influenza is defined by laboratory detection of the influenza virus. Parainfluenza is a distantly related virus that can also cause ILI. In mild disease symptoms of influenza generally last less than a week, though can last up to two weeks. Whilst serious illness is unusual in healthy adults, those with underlying conditions or who are pregnant are more likely to suffer significant complications.

Virus strains in seasonal vaccine are those expected to circulate in the following season, according to recommendations of the WHO (World Health Organization). Trivalent vaccines usually protect against two strains of influenza A and one strain of influenza B, though newer quadrivalent vaccines contain antigens to a second B strain. The strain matching is generally good, for example the 2013/14 mid-year estimate for all strains in the trivalent vaccine was 61%, with meta-analysis showing that in seasons with an effective vaccine the average efficacy is 59%. However, genetic drift and genetic shift in the virus is unpredictable, which results in an unmatched strain in some years. For example the A(H3N2) strain selected for the 2014/15 vaccine did not match the A(H3N2) strain in circulation in many countries (mid-year estimate in England of 3%, though final result is expected to be higher).

Influenza vaccines are very safe. Whilst minor transient local reactions, such as redness or soreness at the injection site, are common (>1/100), the risk/benefit calculation is such that even with poorly matched strains the benefit will outweigh risk unless there is a specific contraindication. It should be noted that WHO recommend continuation of immunisation campaigns even if there is a strain mismatch.

A Cochrane Review (2014) reports that the preventive effect of annual seasonal influenza vaccine in healthy adults is relatively small compared to at risk groups:
- At least 40 people would need immunisation to avoid one case of influenza-like illness.

1 The BMA encourages doctors to be immunized against influenza ahead of the winter months. Influenza immunization is available for free to all NHS frontline staff and social care workers with direct patient contact http://bma.org.uk/practical-support-at-work/doctors-well-being/flu-vaccination.
• Immunisation shows a modest effect in reducing symptoms and working days lost; and no effect on hospitalization.

The Joint Committee on Vaccination and Immunisation (JCVI), on considering all the available data, including additionally commissioned research, concluded in 2011 that raising vaccine uptake in over 65s and at risk groups would be most beneficial. They also concluded that changing the recommendations to include low-risk adults would not be cost-effective and dependent on uptake rate, may provide only limited additional population benefit, therefore JCVI do not recommend routine immunisation of healthy adults, a position reaffirmed in 2013.

Considering that influenza is a time-limiting illness, WHO recommends annual seasonal immunisation for individuals at higher risk for serious influenza complications i.e. pregnant women followed by children aged 6 months to 5 years, individuals with specific chronic medical conditions, the elderly (the “at risk” groups”) and health care workers. In addition to these groups, the Department of Health recommends that immunisation should be provided to health care and social care workers (including students and volunteers) in direct contact with patients/clients:

• to reduce the transmission of influenza within health and social care premises;
• to contribute to the protection of individuals who may have a suboptimal response to their own immunisations;
• and to avoid disruption to services that provide care.

Position
1. Influenza immunisation can reduce the rates of illness and lost work days in healthy adults in years when there are high levels of influenza activity and a good match between vaccine strain and circulating strain. However, there is minimal evidence that annual seasonal immunisation provides overall economic benefits in most years when the level of influenza activity is relatively low.
2. It is not recommended to offer annual seasonal influenza immunisation to employees who do not work in health or caring roles, or other specific occupational groups as occasionally defined by the respective Chief Medical Officer’s letter.
3. Employees in targeted immunisation groups, such as the elderly or those in clinical risk groups should be encouraged to be immunized for seasonal influenza.
   • It is advisable that at-risk employees consult their GP surgery in September to arrange immunisation.
4. It may be appropriate to encourage some workers to have influenza immunisation, arrangements for this are the responsibility of the employer. Considerations include:
   • A high level of influenza activity is reported by UK government public health agencies
   • Key workers in whom absence would cause significant service disruption
   • Business travellers. There is a low but measurable increased risk from air travel. Though there is little evidence that immunisation makes a difference for air travellers, the importance of air travel in spreading influenza is such that immunisation may be wise. It would also be appropriate for those who will visit countries with either higher influenza prevalence or where the national vaccination policy in that country recommends immunisation. Fever in a traveller can be problematic potentially resulting in quarantine until the cause is established not to be due to a more serious transmissible disease e.g. Ebola Virus Disease, Middle East Respiratory Syndrome, etc; hence influenza immunisation can reduce the risk of such problems.
5. Occupational physicians should work with employers to ensure immunisation is offered to employees for whom a risk assessment has identified a risk of exposure eg. laboratory workers working with influenza virus.

References
• Influenza. Vaccine Use. WHO. 2015
• Vaccines for preventing influenza in healthy adults. Cochrane Collaboration. 2014