Continuous Professional Education Programme for Registered Nurses and Registered Midwives
to administer the Influenza Vaccine under the medicine protocol for the Seasonal Influenza Peer to Peer Vaccination Programme (SIPVP)

Current Updates and Communication
Overview of Programme

1. Introduction
2. Medicine Protocol
3. Current Updates and Communication
4. Professional and Legal Aspects of Vaccinations
5. Immunisation Process
   1. Storage and Handling of Vaccine
   2. Correct Administration & Standard Precautions
   3. Documentation, record keeping, reporting and audit.
6. Questions & Evaluation
Influenza Vaccine and Health Care Workers (HCAs)

• Aims and learning objectives
• Influenza epidemiology
• Seasonal influenza vaccine 2019-2020 season
• Why vaccinate Healthcare workers (HCWs)
• Myths
• Communication
• Questions
Aim

• Explore current updates in relation to HCW influenza vaccination
• Outline the importance of effective communication.

Learning outcomes

After completion of this session the nurse/midwife will be able to:

• Understand why HCWs should be vaccinated against influenza.
• Explain current updates in immunisation and the importance of effective communication.
Influenza Overview

- Influenza is an acute respiratory viral illness which can cause a spectrum of illness ranging from mild illness to severe illness and death

- Characterised by sudden onset, fever, cough, runny nose, muscle aches, headaches

- Can affect people of all ages but is more severe in the elderly and those with medical conditions that increase their risk of complications

- Outbreaks occur every year – usually in winter

- A person is infectious for 1-2 days prior to symptoms and up to 1 week after symptoms develop

- In healthy adults, it is usually a self-limiting infection
Burden of Influenza

- **Global***
  - 3-5 million cases of severe illness each year
  - 290,000-650,000 deaths
  - Hospitalisation/critical care admission rates vary by age group and medical condition, circulating strain and match with vaccine strain

- **Europe (EU/EEA)***
  - 4-50 million symptomatic cases each year
  - 15,000-70,000 deaths associated with influenza annually

*Source: *WHO , **ECDC*
Influenza in Ireland

• It is estimated in Ireland that influenza accounts for between 200-500 deaths per year.

• In a severe influenza season it can account for up to 1000 deaths.

• Those in ‘at risk’ categories are most likely to have severe complications of influenza infection e.g. older people, those with chronic diseases, pregnant women, etc.

• However, even those previously well and healthy can have severe complications of influenza infection.
Influenza – Mode of spread

• Tiny droplets of virus sprayed into the air by coughing /sneezing/talking

• Droplets landing on nose/eyes/mouth

• Touching surfaces contaminated with the influenza virus, then touching nose/mouth

(influenza virus can survive for 24 hours on a hard surface and still be able to cause an infection¹)

Influenza Prevention

Primary Prevention refers to the administration of Influenza vaccine for:

- Medically ‘At risk’ groups
- Health care workers
- Carers – formal and informal

Secondary prevention – (once someone has influenza to stop spread) involves

- Good respiratory hygiene
- Hand-washing
- Tissues
The Seasonal Influenza Vaccine
Influenza - vaccine

- Seasonal vaccine very safe.
- The vaccine is inactivated
- It is ‘NOT’ a live vaccine.
- It has been used for more than 50 years globally.
- Hundreds of millions of doses been given globally
- Most people can receive the flu vaccine.
- (Not recommended for those who had previous anaphylaxis reaction to the vaccine.)
Influenza Vaccine

• The 2019/2020 Quadrivalent vaccine recommended by the World Health Organization (WHO) contains 4 strains of flu viruses which are most likely to be circulating this season. The four strains are:
  – an A/Brisbane/02/2018 (H1N1)pdm09-like virus;
  – an A/Kansas/14/2017 (H3N2)-like virus;
  – a B/Colorado/06/2017-like virus (B/Victoria/2/87 lineage); and
  – a B/Phuket/3073/2013-like virus (B/Yamagata/16/88 lineage).


• Link to Summary of Product Characteristics (SPC) and Patient information Leaflet (PIL) available at wFlu vaccine for 2019-2020
Who Should Be Vaccinated?

- **HCWs**
- **Carers – formal and informal**
  - Chronic illness e.g. CF and other chronic respiratory diseases, CHD, immunosuppression, asplenia or splenic dysfunction
  - ≥65yrs
  - Children and teenagers on long-term aspirin therapy
  - Residents of nursing homes and long stay facilities
  - Pregnant women
Influenza Vaccine and Pregnancy

- Flu vaccine recommended at **all** stages of pregnancy.
- Pregnant women should be vaccinated every year.
- Vaccination during normal flu vaccination period.
- Important to identify women as they become pregnant and vaccinate early.
- Remember to offer vaccine to those who become pregnant later in flu season too.
- They may require re-vaccination with next season’s strain if still pregnant next flu season.
- Vaccine needed with each pregnancy.
Side Effects

Most common:
• **Local** – injection site pain, redness and swelling
• **General**- headache, muscle pain, feeling generally unwell

*For complete list of side effects please see SPC and PIL*

[WWW.HPRA.ie](http://WWW.HPRA.ie)

If you are late in season being vaccinated you may be:
  • already infected with influenza
  • infected with one of many other respiratory like viruses.
Healthcare Workers and Seasonal Influenza Vaccine
HCW Vaccination Campaign

- Target for Ireland 2019/2020 -

- National uptake 2018/19 (public hospital facilities) –
  - Medical and Dental highest uptake -
  - Health and Social care professionals -
  - Nursing and Midwifery staff uptake –

- Provisional uptake 2018/2019 for LTCF –
  - Medical and Dental highest uptake -
  - Health and Social care professionals -
  - Nursing staff uptake –
Why Should Health Care Workers Be Vaccinated?

- healthy people can get seriously ill from flu
- >20% HCWs get flu every year
- may only have mild symptoms and continue to work
- highly transmissible 1 day before & 5-7 days after symptoms
- Provides indirect protection against influenza to the high-risk patients
Influenza and HCWs

- Survey undertaken by Occupation Health across 4 hospitals in Glasgow¹.

- Blood samples from 602 HCW (Doctors/nurses/physio’s etc.) before the start of the flu season - none had any evidence of influenza infection

- None had received influenza vaccine (study performed in 1990s when vaccination not routinely recommended).

- Blood samples taken again at the end of the flu season identified that 120 (23%) of these HCW had definitely had influenza infection over the recent season (serologic evidence of influenza virus infection)

Of the 23% who had definitely had influenza:

- 59% couldn’t recall having ‘the flu’ at all
- 28% couldn’t even recall having any respiratory infection at all over the recent weeks/months

¹BMJ, Vol. 313, 16th November 1996:1241-1242
Influenza and HCWs

• Only 8% of those who had definitely had influenza had also taken sick days for ‘flu-like’ symptoms

• The majority had mild illness or subclinical infection

**PROBLEM:** If HCWs are unaware of their infection – they can spread the infection to people who may have severe symptoms e.g. patients or sick/elderly family members
Influenza in Healthy Adults

- Large Study in England over 5 years (5 flu seasons and the pandemic) Flu watch Study (England)\(^1\)

- 7,360 people in the study – all healthy adults

- Baseline blood test for flu infection before flu season and then at the end of the flu season

- Weekly phone calls to see if people had flu like symptoms and nasal swabs sent if had any respiratory flu-like symptoms?

\(^1\)Lancet Respir Med 2014; 2: 445–54
Influenza in Healthy Adults - Results

• 18% unvaccinated ‘healthy’ population each year got influenza
• Approximately 75% infections were asymptomatic (people no symptoms of flu but a positive serology)
• Only 17% of those with confirmed influenza had sought medical assistance for infection e.g. attending pharmacy or GP.
• Conclusions were that there is much more influenza infections amongst healthy people than we realise.

PROBLEM: If HCWs are unaware that they have influenza – they can spread the infection to people who may have severe symptoms e.g. patients or sick/elderly family members

• ¹Lancet Respir Med 2014; 2: 445–54
Influenza- HCWs

In several outbreaks reported in the literature, HCWs were considered the likely source of infection after investigation of the cases.

Reasons HCWs likely to be the source of infection:
• Being asymptomatic – having influenza but no bad symptoms therefore continue to work
• Unvaccinated workers who are not sick can still spread the virus for 24 hours before becoming unwell – so even if they don’t work whilst sick they could have spread the virus 24 hours before knowing that they were unwell.
• Continuing to work thought knowing they have flu symptoms
Influenza vaccine and HCWs

In 2012 the WHO Strategic Advisory Group of Experts (SAGE) made the following recommendations:

• **Healthcare workers are an important priority group for influenza vaccination.** Vaccination of the health care worker not only protects the individual, but also maintains health care services during influenza epidemics and protects vulnerable patients.

The Medical Council of Ireland state ‘it’s your duty to protect yourself from common infectious diseases’.

The NMBI recommends influenza vaccine for Nurses and Midwives.
What are the benefits of HCW vaccination?

• Avoidable personal illness (some healthy adults are asymptomatic with influenza – but will get very sick. We never know who will have a severe infection. In the UK approximately 3 in 10 deaths from flu were in those considered ‘previously healthy’)

• Avoidable family illness

• Avoidable patient illness
Influenza Vaccine – Myths and Facts
Can the flu vaccine give you ‘the flu’?

• No
  • Batches of vaccine are tested to ensure safety
  • Studies have demonstrated that flu vaccines are very safe
  • Influenza viruses in vaccine are inactivated (killed) during manufacturing process
  • The flu vaccine starts to work within two weeks – sometimes people become unwell with other circulating viruses/colds in this time period and mistakenly think it was the vaccination that caused their illness
Influenza Vaccine for Health Care Workers (HCWs)

Often HCWs say:

‘I don’t get the flu so I don’t need the vaccine’
Influenza vaccine HCWs

This is not true

• 1 in every 4 or 5 HCWs will get influenza every flu season

• Most will not have many symptoms, therefore they don’t realise they have influenza

• Some will be asymptomatic but can still infect others (patients and family members) who may get a severe infection
Does Vaccinating HCWs help?

YES

One study showed a 40% reduction of influenza related deaths in hospitals with higher rates of HCW influenza vaccination\(^1\).

The Centre of Disease Control, US, undertook a systematic review of the literature available and they concluded that ‘HCW vaccination can enhance patient safety’\(^2\).

- \(^2\)Ahmed et al. Effect of Influenza vaccination of healthcare personnel on morbidity and mortality among patients: SR and grading of evidence. CID 2014:58 (1 January)
Influenza – does the vaccine work?

• YES

• Effectiveness dependent on the match with the circulating virus strains

• Efficacy much higher in ‘healthy’ individuals

• Much less effective in the Older Person

• However, even among older person in Long Term Care Facilities 50-60% effective in preventing hospitalisations and 70-80% effective in preventing death.
Communication
Vaccination – a victim of its own success

As vaccinations programmes become successful,

• vaccine preventable diseases are becoming less visible

• many individuals as well as HCWs, have no first hand knowledge of the risks of diseases.
What influences Healthcare Workers in their decision making about vaccination?

- Personal and past experience, attitudes and beliefs
- Knowledge and information of disease – risk perception and trust.
- Subjective norms – to have or not have vaccine
- Importance of vaccine
- Moral convections – Ethical aspects of getting vaccine as patient safety measure
- Family and friends
- Media (newspapers, magazines, television, internet, social media)
- Peer Pressure (Co-Workers attitudes)
- National Immunisation policies – public health
Where do HCWs get information from?

- National Immunisation Office
- Occupational Health
- Line managers and Champions
- Broadcasts/Intranet/Internal email
- Family, friends and spouse/partner
- Work colleagues
- HSE information packs and leaflets
- Other Media: TV, Internet, Social Media
Effective Communication

1. Partnership approach to decision making about vaccination between the HCW and Peer Vaccinator (informed consent).
2. Recognise factors affecting an individuals’ decision making and explore any specific concerns avoid down playing concerns regarding vaccinations.
3. Present risks and benefits accurately, consequences of not vaccinating.
4. Clear language and check understanding.
5. Be well-informed, confident, competent, empathetic, open and honest.
6. Provide written information leaflets [https://www.healthpromotion.ie](https://www.healthpromotion.ie) and recommend other reliable sources of information [https://www.immunisation.ie](https://www.immunisation.ie)
7. Practice safely and maintain competence in accordance with best evidence in relation to the Seasonal Influenza Peer to Peer Vaccination Programme
8. Engage with current and up to date evidenced based information.
Sources of Immunisation Information

https://www.immunisation.ie
The Immunisation team at the National Immunisation Office (NIO) produces this factual immunisation site for Healthcare Workers and health professionals

• It is accredited by WHO

• It is a comprehensive, up-to-date and an accurate source of information on vaccines, disease and immunisation

• It has a News section where current issues are rapidly responded to and clearly explained

• Fact sheets and information packs (multi-lingual) can be ordered and/or downloaded and translations are also available

• https://www.hpsc.ie Health Protection Surveillance Centre
Vaccine Hesitancy

- World Health Organization (WHO) defines vaccine hesitancy as ‘delay in acceptance or refusal of vaccinations services’
- An expression of concern or doubt about the value or safety of vaccination.
- Indecision and reluctance towards immunisation.
- It is influenced by complacency, convenience and confidence (SAGE, 2014).
What is Vaccine Hesitancy?

VACCINATION BELIEFS

Anti-vaccine

Vaccine Rejector
- Unimmunized
- Completely reject vaccines
- High safety concerns
- Lack trust in health care provider

Vaccine-Hesitant
- Under-immunized
- Delay/question vaccines
- Select only certain vaccines
- Desire trustworthy health care provider

Pro-vaccine

Vaccine Acceptor
- Fully Immunized
- Few concerns about vaccines
- High trust in health care provider
Influenza Vaccine

• Influenza vaccine does not cause ‘the flu’ it
  – protects,
  – prevents and
  – saves lives
Resources

- @hseimm#YourBestShot
- For updated information on vaccines and vaccination recommendations please see National Immunisation Office (www.immunisation.ie)
- For updated information on epidemiology of influenza in Ireland please see Health Protection Surveillance Centre (www.hpsc.ie)
- WHO (www.who.int)
- ECDC (www.ecdc.eu)
- CDC (www.cdc.gov)
Any Questions