Outline

- Influenza as a disease
  - epidemiology
- Seasonal influenza vaccination programme 2016/2017
- Influenza vaccine
  - Safety and efficacy
- Risk groups
  - Healthcare worker
  - Pregnant women
- Planning for next season
- Key messages
Influenza (Flu)

- Infection caused by flu virus
- Symptoms can range from classic influenza to mild illness or asymptomatic infection
- Spreads by aerosol or touching
- Most at risk include
  - Risk groups
  - Healthcare workers
  - Pregnant women
- Flu is dangerous

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Risk Groups

• Chronic illness requiring medical follow-up 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, HCW, Pregnant women

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Seasonal Influenza Vaccination Programme

2016/2017 Annual campaign

- Risk groups
- Pregnant women
- Health care workers
- Season continues until end of April
Influenza Vaccine
2016/2017 season

Inactivated Influenza Vaccine (Split Virion) BP,
suspension for injection in prefilled syringe
Influenza vaccine (split virion, inactivated)

Suspension for injection
10 prefilled syringes (0.5 ml) with attached needle
For intramuscular or deep subcutaneous use.
Influenza Vaccine

• Contraindication
  – Anaphylaxis to any of the vaccine components or a previous dose

• Precautions
  – Acute severe febrile illness; defer until recovery
  – Egg allergy

• Adverse Reactions
  – Local – redness and swelling.
  – General – fever, malaise, myalgia
Vaccine Safety

• Vaccine is safe
• Most common side effect is redness and soreness at injection site
• Less common – fever, malaise, muscle pain
• Rare – Neurological reactions

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Vaccine Efficacy

- 70-90% in healthy individuals <65

- Lower in the elderly and in those individuals with underlying medical conditions although immunisation has been shown to reduce incidence of severe disease including pneumonia, hospitalisation and mortality

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Factors Influencing Vaccine Efficacy

- Closeness of the match between the vaccine strain and the circulating virus
- Age of vaccinee:
  - older people do not respond as well
- Health of the vaccinee:
  - people with chronic illnesses and immune system disorders do not respond as well as healthy individuals
- Number of vaccinations:
  - in children under 9 two doses are required in the first year of use
- Type of vaccine used:
  - adjuvanted vaccines can give better immune response
HealthCare Workers

• HealthCare Workers (HCWs) are recommended annual seasonal influenza vaccination

Vaccination:
• – Reduces risk of influenza transmission between patients and HCWs
• – Protects against influenza and complications (including death) associated with disease
• – Is an important infection control intervention
Uptake by Hospital HCW Staff Category by Season

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Why Should Health Care Workers Be Vaccinated?

“I’m very healthy so my immune system will protect me from flu.”

“I know the symptoms and would stay at home if I got sick so I wouldn’t infect my colleagues or patients.”

“I got the vaccine and it gave me the flu.”

- 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
- vaccine contains killed viruses so cannot cause flu

Transmission of Influenza by HCW

• In a neonatal intensive care unit¹
  – 19/54 infants were infected and one died
  – 15% of staff were vaccinated against influenza
  – Only 29% of staff who reported influenza-like illness took time off work

• In an organ transplant unit: attack rate 33%²
  – Each patient was in an individual room and 3/4 had no visitors to account for the spread
  – 3/27 (11%) HCWs on the ward had influenza; not vaccinated

• In long-term facility³
  – 65 residents developed influenza
  – Over half developed pneumonia, 19 hospitalised, 2 died
  – 10% of HCW were vaccinated

Influenza infection can remain asymptomatic but infectious⁴

³CDC. MMWR 1991;4:129-131
Pregnant Women
Why Vaccinate?

Maternal influenza associated with an increased risk of

- hospitalisation and maternal death (1 in 11 in the UK 2009-2012)
- congenital abnormalities
  - cleft lip
  - neural tube defects
  - hydrocephaly
  - congenital heart defects
- spontaneous abortion
- preterm delivery
- birth of a small-for-gestational age infant
- foetal death

Infants under 6 months have the highest rate of hospitalisation and death from influenza
Influenza Vaccine and Pregnancy

1960s  Administered to pregnant women in the US
1997   Included in high risk groups
2004   At any stage in pregnancy

2009/2010  Recommended in Ireland since 2009/10
2012   Highest priority group (WHO)

Trivalent or quadrivalent inactivated vaccine
Recommended for consecutive seasons if needed
Influenza Vaccine Efficacy in Pregnancy

Effective

- Disease reductions of 41-91%
  - 70% reduction in 2009/10
- Vaccination during pregnancy provides passive immunity to infants up to 6 months of age
  - incidence of confirmed influenza reduced by 63%
  - 40% reduction in pre term births (as effective as smoking cessation)
  - 57% reduction in small for gestational age infants
- Into adulthood
  - ? reduce long term effects of pre term/ small for gestational age births
Uptake In Those Aged ≥ 65 years

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*September 2015 – July 2016
Vaccine for 2017/2018 Season

• A/Michigan/45/2015 (H1N1)pdm09-like virus;

• an A/Hong Kong/4801/2014 (H3N2)-like virus;

• A B/Brisbane/60/2008-like virus.
Planning

- Lessons Learnt from last season
- Procurement
- Who needs to be targeted?
- Communication Campaign
- Implementation
- Education
- Vaccine deliveries
- Monitoring flu activity
- Monitoring vaccine distribution

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Key Messages

- Flu is dangerous
- Flu vaccine is important public health initiative
- Uptake less than optimal
- People in risk groups must be vaccinated
- Flu vaccine is safe
- Need to plan now for next season

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Thank You

Further information
www.immunsation.ie