Influenza Preparedness
2018-2019
Influenza, Vaccine and Outbreaks Prevention – A Public Health Perspective

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Presentation Outline

• Influenza - facts
• Influenza Outbreaks
  – National and Local Data
• Influenza Vaccination
  – Effectiveness
  – HCWs
  – Uptake
• Pneumococcal vaccine
Why do we worry about influenza?

When some people get the flu it may be mild, but for many others it could be fatal.

- Most of these excess deaths are in the elderly/those with underlying illness
- Approximately, 200-500 Irish people will die each year because of flu. In a bad year this can be up to 1000 people (2008-2009)
- Recent European study reported weeks of excess mortality coincided with medium or high influenza activity weeks
- Cork and Kerry 2017/18 season
  - >100 children admitted hospital with confirmed flu
  - >25 deaths from confirmed flu
Who is most at risk of complications

- **Diseases**
  - Those with chronic medical conditions e.g. Chronic respiratory, cardiac etc., Diabetes Mellitus, neurological disorders, immunosuppressed either through disease or treatment including those with asplenia or splenic dysfunction, morbid obesity-BMI ≥ 40

- **Vulnerable age**
  - Young children < 5 years
    - hospitalisation rates comparable to those aged 50-64
    - those under 6 months have highest hospitalisation rate of any age
  - ≥ 65 years
    - Account for 90% deaths from seasonal flu

- **Pregnancy**
GP ILI consultation rates, baseline rate & flu positive specimens by week & season

Source: HPSC

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Influenza/ILI Outbreaks by week & season

Source: HPSC  Note 2017/18 data is provisional

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Influenza Outbreaks, Residential Settings, Cork & Kerry, 2012-2018

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Influenza Vaccine

• Several strains of influenza – constantly changing
• New vaccine every year -3 or 4 virus strains (A+B)
• WHO monitors strains circulating globally – Northern and Southern hemisphere
• Jan/Feb each year WHO advises on strains for vaccine
• Vaccines take months to produce – ready for September in Northern Hemisphere
• National contract for vaccine ordered early (Dec/Jan for the following season)
Influenza Vaccine

- Sometimes change in circulating virus and the vaccine is not fully effective
- Elderly and immunosuppressed poorer response
- Effectiveness varies depending on flu strain circulating
  - 2015/16 season Flu A (H1N1) was good match but Flu B not in the vaccine
  - 2016/17 season Flu A (H3) good match but poor response to H3 in elderly
  - 2017/18 season Flu A (H3) good match but poor response to H3 in elderly AND Flu B not in the vaccine (some cross protection from the B strain in the vaccine)
Influenza Vaccine

Vaccination is the best protection we can give our population

• Protects against infection

• Decreased risk of
  – Severe infection
  – ICU admission
  – Death

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Prevention of Outbreaks in Vulnerable Populations

- Vulnerable setting- nursing homes, long stay residential - including disability & mental health
- Vaccination of residents (not 100% effective)
- Vaccination of staff
- Preparations and staff education
- Prevention of spread - infection control and good hygiene practices
Why should HCWs be vaccinated?

• HCWs at higher risk of getting flu
• HCWs look after the most vulnerable
• HCWs frequently implicated as the source of influenza transmission in health care settings
  • Employees continue to work while sick with influenza
  • Unvaccinated workers who are not sick can still spread the virus
• Benefits of influenza vaccination of HCWs:
  • Reduce risk of outbreaks in health care facilities
Flu vaccination for **ALL HCWs**

- Recommended for HCWs annually since 1999, both for their own protection and for the protection of patients

- **HCWs**: all staff (including ancillary staff, such as cleaners, porters, kitchen staff) working in health care setting or health related activities in acute and non acute health care settings, including those working in health related activities in the community settings
But I don’t get the flu

• ACTUALLY!
• One serosurvey showed 23% of HCW had serologic evidence of influenza virus infection during a single influenza season
• ...the majority had mild illness or subclinical infection
Since I’m Not at High Risk, Do I Need to Get the Flu Vaccine?

YES!

• When you get the flu it may be mild, but for those at high risk it could be fatal.
  – Patients.
  – Family Members and Friends.

• Getting the flu vaccine helps to protect the people you work so hard to keep healthy.
Does Vaccinating Health Care Workers (HCWs) Really Help?

YES!

• Many studies have shown that increasing the vaccination rates of HCWs decreases patient illness and death.

• One study showed a 40% reduction of influenza related deaths in hospitals with higher rates of HCW influenza vaccination.
LT CF staff Flu vaccine by CHO by season

Overall % Uptake

Community Health Organisation (CHO)

- CHO 1: DL; SO/LM; CN/MN
- CHO 2: G; RN; MO
- CHO 3: CE; L; TN/EL
- CHO 4: KY; NC; NSL; WC
- CHO 5: TS; CW/KK; WD; WX
- CHO 6: WW; DS; DSE
- CHO 7: KE; DW; DSC; DSW
- CHO 8: S/OY; LD/WH; LH/MH
- CHO 9: DN; DNC; DNW

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LT CF staff Flu vaccine by CHO by staff category

Overall % Uptake

HSE Staff Category

- General Support Staff
- Health & Social Care Professionals
- Management & Admin
- Medical & Dental
- Nursing
- Other Patient & Client Care
- All Staff


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High uptake LTCFs!

National Target 40% uptake

Cork
- Cope Foundation Clonakilty 91%
- Cope Foundation Midleton 71%
- Cobh Community Hospital 66% (61% in 2016/17)
- Clonakilty Community Hospital 65%

Kerry
- Listowel Community Hospital 44%
High uptake acute hospitals!

National Target 40% uptake

Cork and Kerry

• Mercy University Hospital 49%
• Mallow General Hospital 46%
• South Infirmary Victoria University Hospital 40%

Highest Uptake Nationally

• Our Ladies of Lourdes, Drogheda 75%
HCW Uptake 2018/19

National Target is

60%
How do we increase uptake in HCWs?

- Information
- Easy access to vaccine
  - Occupational Health
  - Peer vaccinators
  - Pharmacy vouchers
- Peer encouragement
- Need to make it normal and routine to have the vaccine
Pneumococcal Vaccination

- Bacterial respiratory infections common complication of influenza especially in at risk – pneumococcal
- Pneumococcal vaccine (Pneumovax) recommended for all aged 65+ and risk groups
- Most patients once only vaccine
- On admission record pneumococcal vaccination history
- If never given and indicated should be given
Summary

• Influenza circulates every season
• Vaccine is the best protection
• Vaccine is less effective in the elderly but still the best protection we can offer
• HCWs are both at higher risk of infection and a significant source of infection to patients
• Vaccination of HCWs is vital to protect vulnerable patients
• Long-term care facilities need to plan every year for the prevention, detection and management of influenza cases and outbreaks