London Respiratory Team (LRT)
FACTSHEET: Protecting people with COPD from influenza

Improve flu vaccination uptake in Londoners with COPD and those at high risk for pneumonia and reduce their risk of infection from carers and health workers.

A high value intervention for COPD and pneumonia

Around 17% of deaths from flu each year are in people with chronic respiratory disease. Flu vaccine for people with COPD is a high value intervention because it provides outcomes that a patient wants i.e. avoiding pneumonia or COPD exacerbation and avoiding a hospital admission - at low cost. It is worth having these facts to hand when we work with patients and colleagues to highlight that the benefits outweigh the perceived harms of this vaccine.

- 76% reduction in influenza-related acute respiratory illness
- 52% reduction in hospitalisations in population over 65 with chronic lung disease
- In the over 65 population (in 1998), the benefit was estimated at £50 per vaccine given. This would represent a cost saving for commissioners
- Emergency admissions for ambulatory care sensitive conditions cost the NHS £1.42 billion annually. Influenza, COPD and pneumonia account for the largest proportion of admissions (26 per cent) and 24% of expenditure (£340 million). Many of these cases are vaccine-preventable

For more information about choosing high value treatments for COPD see the Impress guide to the relative value of COPD interventions.

Rates of vaccination are not as good as we think

If we look at the quality and outcomes framework (QOF) flu vaccination rates from recent years COPD8 it would seem at first that flu vaccination for people with COPD has been a success. However 20% of Londoners with COPD didn’t get a flu jab last year. In 2010-11 we vaccinated 93.1% of ‘eligible’ people with COPD in London. This particular indicator however is associated with high exception reporting which leaves us with an 80% vaccine uptake. The population recorded as eligible for flu jab and therefore the benchmark denominator was 77,398 out of a registered COPD population of 90,191. In practice this means that 12,793 had declined. Can we do more to motivate this group?

Additional budget savings for over 65s @ £50 per vaccine if we reach the ‘not vaccinated’ - 18,196

<table>
<thead>
<tr>
<th>COPD population &gt;65 + no flu jab - assume 50% COPD popn age &gt;65</th>
<th>9,096</th>
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<tbody>
<tr>
<td>Savings if 95% vaccinated</td>
<td>£432,155</td>
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<td>Savings if 85% vaccinated</td>
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<td>Savings if 75% vaccinated</td>
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<td>Savings if 65% vaccinated</td>
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Cost of hospitalisation in over 65s due to flu caused by pneumonia and exacerbations of COPD

| Population of London (census 2011) over 65 | 874,607 |
| Hospitalisations due to influenza caused Pneumonia/AECOPD in >65 based on modeled rate of 22.9/10,000 | 2002 |
| Average cost of admission (based on AECOPD costing) | £1960.00 |
| Total cost of London influenza associated respiratory admissions >65 | £3,925,586 |

A London GP surgery achieving 70% vaccine uptake for 500 patients over 65 receives incentive payments in the region of £7000.

The evidence presented so far provides a clinical efficacy and cost saving rationale for raising the bar on flu vaccine targets. We are also aware that there can be a limited vaccine response in the most at risk, such as the elderly and debates continue about vaccinating younger people to provide the herd protection our most vulnerable need. We must therefore improve vaccine uptake in household and carer contacts and in those professionals who care for these patients.
Vaccinating healthcare professionals against influenza should be mandatory

A recent BMJ editorial presents the argument for mandatory vaccination of healthcare workers in direct contact with patients. Vulnerable patient groups are at high risk of nosocomial infection and have a high case fatality rate. In the US 98% vaccine rates have been achieved where employers require their staff to have a flu vaccine. The current UK policy is for employers to strongly encourage their staff but with take up of less than half of frontline workers this editorial recommends a change in policy for clinical and economic reasons.

In a mild flu epidemic season 23% of healthcare workers had serological evidence of flu with subclinical status in 28-59% meaning there was continued patient contact whilst infected.

Reasons for not vaccinating include the fear of side effects and a belief that it may not be effective. Even with poor strain matches which happens in some years, efficacy of 83% can be achieved. Minor adverse reactions occur in less than 1% of the general population and severe effects i.e. anaphylaxis is less than 1 in a million.

Information by clinicians for clinicians

A personal flu story from a senior doctor

A leading chest physician has admitted he “put patients at risk” and “absolutely should have known better” after he failed to have the flu jab last year.

DH winter flu plan

The importance of immunising healthcare workers was highlighted by the outbreak at the Royal Liverpool University Hospital where flu spread rapidly through several wards infecting both patients and staff in 2008. The HPA confirmed the infection was mainly spread by healthcare workers.

Healthcare worker uptake of the flu vaccine increased from 35% to 45% in 2011/12. In the same period 41% of London’s GPs who are responsible for achieving targets in excess of 70% in at risk groups received the vaccine.

Guillain- Barré Syndrome - recent review and large cohort evidence

“In Quebec, the 2009 influenza A (H1N1) vaccine was associated with a small but significant risk of GBS. It is likely that the benefits of immunization outweigh the risks. The number of GBS cases attributable to vaccination was approximately 2 per 1 million doses.”

So what steps can we take this autumn to improve influenza-related COPD outcomes?

- Improve patient uptake through public facing demonstrations and stories of clinicians and health workers partaking in organisational flu vaccination programmes.
- Target and provide education for previous flu jab decliners in primary care. Look at last years ‘not eligible’ group and re-explore their beliefs about the vaccine using patient centred materials.

Share personal flu stories from patients with COPD or other chronic lung disease

References

12. Influenza vaccination in healthcare professionals BMJ 2012;344:e2217
17. http://neurology.jwatch.org/cgi/content/full/2012/724/1 Accessed August 8th 2012