Public Health England

Department of Health

Protecting and improving the nation's health

NERVTAG Sub-committee on the pandemic influenza Facemasks and Respirators stockpile:

Formal Recommendations to the Department of Health

Issue

The sub-committee was asked to provide the Department of Health with an expert view on the continued clinical appropriateness of the UK's approach to stockpiling personal protective equipment (PPE) for use in an influenza pandemic in order to help inform future stockpile and purchasing decisions. Specific questions about facemasks and respirators were raised.

Key points

PPE stockpile in general

1. The Committee noted that a major re-procurement of the current stockpile of PPE which form part of the Department of Health's influenza pandemic countermeasures is due to commence in Spring 2016.
2. The current stockpile was built on the basis of a worst case scenario and involved a number of assumptions. It contains respirators and surgical masks as well as eye protection, gloves and aprons. Other items such as clinical waste bags and alcohol hand gel are also included.

Infection control guidance: The Committee acknowledged that it was not within its remit to develop infection control guidance including use of PPE in the event of an influenza pandemic. However, in addressing the issue tasked by DH to the Committee with respect to use of PPE, the Committee felt that it needed to recommend PPE usage in line with the current evidence base and guidelines.

Discussion points:

To generate discussion the group considered the basis and assumptions that the current stockpile is built on and the evidence base for influenza transmission and the effectiveness of facial PPE. The following points emerged:

Stockpile:

- Fit testing in the face of an emerging pandemic is a major challenge but it is important. Adding 'call down' fit testing as part of the procurement (including the fit testing solution etc.) would be advantageous.

- Just in time fit testing was proposed – however, there may not be sufficient time to put this in place, between pandemic virus emergence and the first UK impact. It was agreed that there is no substitute for a rolling programme of fit-testing in NHS trusts during inter-pandemic periods. There should be a caveat about fit testing in any recommendations.
- Consider rotating UK stockpile coming to end of shelf life into the NHS for business as usual.

Evidence Base for transmission and facial respiratory protection

- It was agreed that respirator (FFP3 class) use for all HCWs both in hospital and the community (including social work, ambulance staff etc) is not fully supported by the current evidence base for either transmission or respirator effectiveness. Furthermore, the logistics of fit testing and training would be extremely challenging.
- It was agreed that intensive care units (ICU) and High Dependency Units (HDU) should be classed as aerosol generating procedure (AGP) 'hot spots' and therefore respirators should be recommended for all staff at all times when a patient with pandemic influenza is present (unless housed in a negative pressure side room; in this case, respirators when in the room only are needed).
- AGPs are rarely performed in ward areas (non-invasive ventilation and cardiopulmonary resuscitation being the most likely). It was therefore felt that fluid repellent surgical masks (FRSM) could be used for the majority of clinical care on normal wards during a pandemic, escalating to respirators for AGPs.
- Visitors – It was agreed that a small overage was needed to take into account visitors wearing FRSM (non ICU/HDU) and respirators (not fit tested, in ICU/HDU).

Conclusions of the Group:

1. The evidence to support the plausibility of aerosol transmission of influenza is stronger now than it was prior to the 2009 pandemic. However, considerations of the infectious dose needed for onward transmission and whether these are regularly achieved through aerosol inhalation have not yet been determined. The relative importance of aerosol transmission compared to other routes is still unknown.
2. All persons (staff and visitors) present on an ICU/HDU (including neonatal ICU) housing pandemic influenza patient(s) to be provided with single use FFP3 respirators at all times (unless all patients are isolated in negative pressure side rooms when only staff entering the room(s) need to wear a respirator).
3. All general ward, community, ambulance and social care staff to wear single use FRSM for close patient contact. The exception is the performance of AGPs (in isolated areas when practicable) when staff should wear respirators.
4. All staff using facial PPE will also use gloves and aprons.
5. Eye protection is considered to be necessary. Eye protection to be worn when in close contact. When recommendation is for FRSM, single use mask with integral visor is considered more desirable than glasses but either suffices.