Note on Recommendations to use surgical masks for all patient encounters and meetings between staff where social distancing (2 metres) cannot be maintained.

Introduction

Many of you will be aware that one hospital has issued guidance to all staff that they should wear surgical masks for all patient encounters and meetings between staff where social distancing (2 metres) cannot be maintained.

The basis of the recommendation made is stated as being to prevent spread of infection from a mildly symptomatic or asymptomatic healthcare worker to patients and other staff members. The recommendation is to use 3 masks per day if working a 12 hour shift and 2 masks per day for working less than 12 hours.

Other hospitals have since adopted this position. The purpose of this note is to clarify national guidance on this issue and the basis for that guidance.

Key Messages

The recommendation that all staff should wear a surgical mask for all patient encounters and meetings between staff where social distancing (2 metres) cannot be maintained is not supported by evidence and is not consistent with national guidance.

The basis for the recommendation is problematic in that it may suggest that the risk from mildly symptomatic healthcare workers attending work can be managed by mask use.

The recommendation is problematic because it can be expected to promote poor practice in relation to use of masks and thereby increase risk for patients and colleagues. If a hospital recommends adoption of a measure that is not supported by evidence or consensus of expert opinion it has a responsibility to ensure that the measure does not expose staff to increased risk. Safe mask use means that masks are tied appropriately and removed and discarded any time the healthcare worker needs to take a toilet break, answer the telephone or uncover their mouth to eat or drink or for any other reason. This cannot be accomplished with the number of masks proposed in the recommendation above.

Background and Rationale

The stated purpose of the recommendation is to prevent spread of infection from a mildly symptomatic or asymptomatic healthcare worker to patients and other staff members. It is apparent also that many healthcare workers are fearful for their own health and believe that routine mask use will protect them from acquiring infection from a mildly symptomatic or asymptomatic colleague or patient. It is in everyone interest to support healthcare workers to protect their own health. Wearing of masks provides a sense of security for many people. However the recommendation to use 3 masks per day if working a 12 hour shift and 2 masks per day for working less than 12 hours is likely to be counterproductive.

The use of surgical masks

Surgical masks are an important item of personal protective equipment (PPE) for healthcare workers (HCW) who need to apply droplet precautions in patient care scenarios conducted within the radius of droplet spread (typically 1 to 2 meters)

Surgical masks are also used as part of standard precautions, where there is a risk of splashes of blood or bodily fluids to the nose or mouth (e.g., during operative procedures)

A surgical mask may also be worn by a person with clinical evidence of a droplet transmitted respiratory infection others (e.g., SARS-CoV-2 (COVID-19), influenza), with the aim of reducing droplet dissemination from the person, especially when they are waiting in a communal area or during transfer between clinical areas

Some relevant guidance related to surgical masks and COVID-19

WHO guidelines on rational use of PPE for COVID-19 (27th Feb 2020) state *"for asymptomatic individuals, wearing a mask of any type is not recommended. Wearing masks when they are not indicated may cause unnecessary cost and a procurement burden and create a false sense of security that can lead to neglect of other essential preventive measures"*

Public Health England guidance on COVID-19 Infection Prevention & Control (March 2020) state that surgical masks should cover nose and mouth, not be allowed to dangle around the neck after or between each use, not be touched once put on, be changed when they become moist or damaged, be worn once and then discarded as clinical waste – hand hygiene must be performed after disposal

Irish recommendations for use of PPE in management of suspected or confirmed COVID-19 (17th March 2020) state this guidance DOES NOT RECOMMEND the use of surgical facemasks in situations other than for contact with patients with droplet-transmitted infections including COVID-19

Other relevant background

HIQA recently reviewed the evidence of asymptomatic transmission for the Expert Advisory Group to the National Public Health Emergency Team and concluded as follows

"*There were 11 case reports reporting pre-symptomatic or asymptomatic transmission. However, the level of evidence (case reports) is low and is subject to a number of potential sources of bias and therefore the evidence should be interpreted with caution.*

The modelling studies may provide another source of evidence for asymptomatic transmission but they need to be carefully assessed for quality and applicability to Ireland."

The Report of the WHO-China Joint Mission on Coronavirus Disease 2019 (COVID-19) notes "*The proportion of truly asymptomatic infections is unclear but appears to be relatively rare and does not appear to be a major driver of transmission*."

A very recent publication from Klutymans-van den Bergh based in the Netherlands described testing of healthcare workers in two large teaching hospitals who suffered from fever or mild respiratory symptoms. 86 of 1353 (6.4%) of this cohort of HCWs were identified as having COVID-19 on a single sample. Only 53.5% had fever but 91.9% were captured by a cases definition of fever and/ or coughing and/or shortness of breath. Extending this to include severe myalgia and/or general malaise would capture 100% of healthcare workers. The majority (62.8%) reported that they had worked while symptomatic. As the study was limited to those reporting some symptoms truly asymptomatic healthcare workers would not have been detected. As the diagnosis was based on as single oropharyngeal sample it is possible that some patients withere COVID-19 were not detected.

Reservations regarding the Recommendation on routine use of surgical masks

1. The study of Klutymans-van den Bergh emphasises the common experience that healthcare workers tend to present for work when they have symptoms. It is a concern that the recommendation above may suggest that the risk posed by mildly symptomatic healthcare workers attending for work may be managed by wearing a surgical mask. The message needs to be very clear and consistent with current national HSE guidance that symptomatic healthcare workers should not attend for work but should be assessed and tested if appropriate.
2. There is some uncertainty regarding the extent to which infected but asymptomatic people may disperse infectious droplets but in so far as it occurs, it is likely to be very much less than those who are symptomatic. The WHO report indicates that asymptomatic infection does not appear to be a major driver of transmission.
3. Even if the hypothesis that transmission from truly asymptomatic healthcare workers in the healthcare setting is significant it accepted, there is no evidence that the universal use of surgical masks is effective in reducing this beyond what is achieved by Standard Precautions (hand hygiene, respiratory hygiene and cough etiquette and environmental cleaning) and minimising interpersonal interaction.
4. If universal use of surgical mask is adopted with a view to preventing transmission of infection it is essential that the masks are used appropriately as per standard guidance on surgical mask use in this context.
5. Appropriate surgical mask use for the purpose of preventing infection requires that the masks is applied appropriately so that the it can be removed safely without touching the front of the mask and discarded.
6. It is highly unlikely that healthcare workers can adhere to safe mask use in the context of the recommendation to use a single mask for a period of 4 to 6 hours. Safe use for 4 to 6 hours would mean that he mask cannot be removed to drink, eat, take toilet breaks or answer the telephone. If the telephone is answered while wearing the mask the telephone may be contaminated by the mask. In these circumstances most healthcare workers will resort to unsafe mask use – for example tying the masks behind the neck so that it can be pulled up and down and touching the front of the mask. The mask may create the illusion of protection but in fact the practice recommended is probably more likely to increase the risk of transmission of infection to both patients and colleagues and to increase the risk of acquiring infection.

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