

PERTINENT QUERIES ON SWINE FLU (H1N1)

Q. How useful is the surgical mask - does a pediatrician need to wear a mask?

All health care workers who are in direct contact (within 1 meter distance, as would be the case in OPD) with patients with influenza like illness should wear a triple layer medical mask. If they are performing aerosol generating procedures (suction, bronchoscopy, intubation, resuscitation), they should wear a facial particulate respirator (eg. EU FFP2, US NIOSH-certified N95) and medical mask is not enough. N95 masks are difficult to tolerate for long time (personal experience)(1). There is no recommendation of wearing a mask when in open spaces (like most open public spaces)(2). Personally I am not wearing mask in my clinic. Remember, H1N1 is a mild disease unlike H5N1 bird flu.

Q. Is it mandatory that we wash our hands with alcohol based cleanser - and how often?

Yes, one should wash hands with soap and water or sanitize hands using alcohol based hand sanitizer before and after touching each and every patient with influenza like illness, and after removing personal protective equipments like mask or goggles (as well as touching a face mask with hands - a habit difficult to avoid!)(2).

Q. Are the respiratory complications directly due to H1N1 or due to secondary bacterial infection like in the 1918 epidemic?

1918-19 flu pandemic (which was also caused by another H1N1 influenza virus) did show evidence of secondary bacterial infection with *Pneumococcus* or *Staphylococcus aureus* in US soldiers at military camps. Hospitalization and mortality peaked 7-10 days after the peak of influenza like illness suggesting role of super-added bacterial infection as also positive post-mortem heart-lung cultures or ante-mortem blood cultures(3). However there is no specific evidence currently to suggest super-infection with bacteria for H1N1.

Q. Is there any use of taking a Pneumo 23 vaccine? Will the children who have had PCV 7 be better off?

Current CDC guidelines do not recommend use of PPV23 routinely for the entire population. I personally think it does not make sense in giving this vaccine to every one unless more data comes in. Also, the mortality due to H1N1 is not lesser in countries using PCV7 in their national immunization program(4). PPV 23 should be continued to be used with more zeal as per the current guidelines (elderly > 65 years of age and > 2 years with high risk situation).

Q. What use is oseltamivir (Tamiflu) given beyond 48h of illness?

Since the H1N1 virus is new, clinical efficacy data on antiviral treatment are not yet available. Based on its in vitro susceptibility patterns and clinical experiences derived from seasonal and avian H5N1 influenza infection, early administration of neuraminidase inhibitors (NAIs) like oseltamivir or zanamivir might reduce severity and duration of illness caused by the new H1N1 virus infection, and might also contribute to prevent progression to severe disease and death. If used, antiviral treatment should ideally be started early, but it may also be used at any stage of active disease when ongoing viral replication is anticipated or documented (as is expected in cases that deteriorate)(5).

Q. Is seasonal flu vaccine any use at all for H1N1?

Available scientific evidence suggests that seasonal flu vaccine has no role in preventing pandemic H1N1 as the new H1N1 virus is antigenically totally different from the endemic H1N1 virus (6).

WHO, CDC, and other partners and manufacturers are currently working on development of a new H1N1 vaccine; 6 candidate vaccines are in advanced stage of development and are likely to be available in next 3-4 months(7). One will need timely availability of 1-2 billion doses or may be more of

such vaccine to have meaningful impact on spread of new H1N1 virus. Typically pandemic vaccines always come too little and too late and benefit the developed countries the most who have the resources as well as public health program in place for such flu vaccine based on strong national program for seasonal flu vaccine (90% of current capacity to produce flu vaccine is in the developed countries like US and Europe). As far as India is concerned, where is the public health program in place for offering this vaccine to masses? However, it seems that GoI through ICMR is now thinking of evolving a national program for flu! Did anyone say dig a well after fire breaks out?

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