

Knowledge, Attitude and Practices Regarding Novel H1N1 (swine) Flu Among Pediatricians of Chandigarh

A questionnaire based survey related to Novel H1N1 swine origin influenza virus (S-OIV, swine flu) was administered to 134 pediatricians of Chandigarh city, to assess their knowledge (10 questions), attitudes (4 questions) and practices (4 questions). Of 134, 94 (70%) responded. Thirty percent ($n=28$) were in private practice and 70% ($n=66$) were in public sector. Forty six percent were registered with Indian Academy of Pediatrics. Only 52% ($n=49$) were aware that swine flu predominantly occurs in young healthy individuals. Ninety percent ($n=85$) were familiar with clinical symptoms and 70% ($n=66$) with incubation period. Current WHO phase-6 of pandemic alert was known to a few (14%).

Regarding management practices, only 33% ($n=31$) knew that Oseltamivir and Zanamivir both could be safely used in children, while 63% ($n=59$) pediatricians knew of only Oseltamivir. Eighteen percent ($n=17$) believed that breastfeeding should be

stopped for mothers receiving pharmacotherapy. The possibility of reinfection with S-OIV even after successful therapy was known to 43% ($n=40$).

Hand washing and special masks were suggested as best methods of prevention for the physicians [27.7% ($n=26$) and 65% ($n=61$), respectively]. N95 masks utility was known to 78%. The state of mind as regards to the pandemic was cautious and careful (91%), alarmed and panicky (5%) and not bothered (4%). Most pediatricians (94%) agreed that more efforts are needed to spread awareness regarding this pandemic. Internet was the most popular means of acquiring information about swine flu (84%), followed by newspaper and media (46%), senior health professionals (19%) and books (10%).

The survey's results suggest that there is a mixed response in the preparedness of pediatricians towards swine flu. On an encouraging note, majority of the physicians had tried to educate themselves about this pandemic. There is need to scale up the efforts to spread awareness about swine flu.

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H1N1 Guidelines

I am working as Senior Pediatrician in Corporation hospital with indoor capacity of 750 beds out of which 90 beds are for pediatric patients, including NICU and PICU. At present we are coming across many patients receiving fluvir (oseltamivir) for ILI (Influenza like illness) and then referred to our hospital. Most of these patients suffer from cough, coryza, breathlessness and bronchospasm.

According to government guidelines, fluvir is to be given for Category A, which include ILI with seriously ill patients requiring life saving measures and Category B, children with fever $>38^{\circ}\text{C}$, tachypnea, cough and coryza, breathlessness with or without loose motions and vomiting. We come across similar complaints very often and we treat them as bronchiolitis/reactive airway disease. Are we justified in using oseltamivir so often, knowing the limitations and side effects of oseltamivir. Should there not be separate guidelines for starting oseltamivir in children, especially <2 years of age?

In our hospital, uptil now, out of 16 suspected H1N1 patients who were receiving fluvir from outside, only 2 turned out to be H1N1 swab positive and these children recovered rapidly with oxygen, IV fluids, and nebulization within 24 hours without any radiological evidence of pneumonia.

VP Fadnis
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Reply

I write this based on information available as on 4th October 2009. H1N1 scenario, as also the management guidelines, is rapidly changing. Please keep track of the changes from time to time from official websites.

Dr Fadnis has raised a pertinent point in her letter; the point concerning the H1N1 guidelines to be followed while managing a case of suspected novel H1N1 infection. She has observed that many children with cough, cold, sore throat and fever with or without loose stools or vomiting [Influenza like illness (ILI)] are being treated with oseltamivir, (besides the other management modalities as are appropriate for the child's condition), and that many of these cases ultimately turn out to be negative for novel H1N1 infection on nasopharyngeal swab PCR making it seem unnecessary to treat every such patient with oseltamivir. However this situation is now even more intense in Maharashtra due to the revised guidelines followed in Maharashtra while managing suspected novel H1N1 infection which now recommends treating each and every person (including children and adults) with even mild ILI with oseltamivir within 48 hours of onset of illness(1). While one can understand starting oseltamivir in severe, hospitalized cases with ILI (classified as category A in revised Maharashtra guidelines), one kind of feels it too much to treat everyone (including children and adults) with even mild ILI with oseltamivir (classified as category B in revised Maharashtra guidelines). Theoretically this will ensure that every person with potential H1N1 is started on oseltamivir within the critical 48 hours of onset of symptoms (with maximum benefit in potentially reducing morbidity and mortality)(2).

However this approach also throws open a Pandora's Box!

- (1) The revised Maharashtra guidelines are in contrast to the guidelines from other reputed international bodies like WHO or CDC(2,3). For severe hospitalized patients, even revised WHO and CDC guidelines suggest treating all such patients with oseltamivir as soon as possible. However for mild ILI, WHO and CDC suggest starting oseltamivir only for those who are at high risk for complications and all children < 5 years (WHO) or < 2 years (CDC). Besides, the revised Maharashtra guidelines are entirely different from national guidelines dated 14th June 2009 available on the website of ministry of health and family welfare, Govt. of India(4). The available national guideline classifies suspected H1N1 in different A, B or C categories (in reverse order as compared to revised Maharashtra guidelines) and do not recommend oseltamivir in mild disease or severe non-hospitalized patients without the high risk factors (as is recommended by revised Maharashtra guidelines)(4). As such, the revised Maharashtra guidelines are not available on any governmental website.
- (2) There are various developed countries that are liberal in starting oseltamivir at "a drop of a hat" as is suggested in the revised Maharashtra guidelines. However these countries are small with limited population, are prepared with pre-conceived stock piling based on the population strength and have effective public distribution system to disperse the drug (at times delivered at home almost on a phone call request). In India none of these situations exist. We are populous country (1 billion plus), are ill-prepared in general and with the stocks of oseltamivir in particular and most important we do not have effective distribution system.
- (3) Oseltamivir syrup is generally available with great difficulty. Capsules are difficult to give in a child < 5 years (the age group maximally affected with ILI). It is estimated that up to 50% of the population is ultimately likely to be affected by the pandemic influenza virus(5). It would mean 500 million people getting the virus and the ILI in India