

KNOWLEDGE AND BEHAVIOR REGARDING SWINE FLU AMONG INTERNS AT INDEX MEDICAL COLLEGE, HOSPITAL & RESEARCH CENTER, INDORE (M.P.)Shireen Sharma¹, V. K. Arora², Piyusha Mahashabde³**HOW TO CITE THIS ARTICLE:**

Shireen Sharma, V. K. Arora, Piyusha Mahashabde. "Knowledge and Behavior Regarding Swine FLU among Interns at Index Medical College, Hospital & Research Center, Indore (M.P.)". *Journal of Evolution of Medical and Dental Sciences* 2014; Vol. 3, Issue 10, March 10; Page: 2590-2594, DOI: 10.14260/jemds/2014/2178

ABSTRACT: BACKGROUND: Swine flu is an acute respiratory disease, caused by a strain of influenza type A virus known as H1N1. On 11 June 2009, the World Health Organization (WHO) raised its pandemic alert level to the highest one, from phase 5 which represent a strong signal that a pandemic is imminent to phase 6, which shows full global pandemic. **OBJECTIVES:** To determine student knowledge, awareness, attitude and behavior regarding swine flu and its vaccination at the Index Medical College, Hospital & Research Center, Indore (M.P.) **MATERIAL & METHODS:** This was a cross sectional study, carried out during March- April 2013 among, 209 Interns posted in various department, at Index Medical College. SPSS version 20 was used for statistical analysis. Study population was interviewed through pre-tested and pre-designed questionnaire. **RESULT:** 98.3% of the study population had previously heard of Swine flu. Newspaper was major source of information regarding swine flu in 38.3% followed by TV. Running Nose as a most common symptom was known to 21.8% only. 60.1% believed that pork eating can spread this disease. Only 2.1% believed in Hand washing as a mode of prevention. **CONCLUSION:** The results reflected the importance of health education as a cornerstone element in improving KAP towards influenza A/H1N1 infection. The study thrones light on the need of continuous health education of students to improve their awareness, attitude and practice regarding prevention of A/H1N1 virus.

KEYWORDS: Swine flu, Novel A/ H1N1, prevalence, outbreak, knowledge, attitude and practice.

INTRODUCTION: Swine flu is an acute respiratory disease, caused by a strain of the influenza type A virus known as H1N1, officially referred as novel A/H1N1.¹ The virus is a mixture of four known strains of influenza A virus: one endemic in humans, one endemic in birds, and two endemic in pigs (swine). Swine influenza was first proposed to be a disease related to human influenza during the 1918 flu pandemic, which was known as Spanish flu, (infected about 500 million people and caused approximately 50 million deaths)² On 11 June 2009, the World Health Organization (WHO) raised its pandemic alert level to the highest one, from phase 5 which represent a strong signal that a pandemic is imminent to phase 6, which shows full global pandemic was under way ², meaning that, the A/H1N1 flu had spread in more than two continents. By the year 2010 June, it has caused more than 18, 172 deaths in nearly 214 countries and overseas territories and communities.³ However, the number has been increasing since 2011: as of August 31, 2012, a total of 309 cases had been reported.⁴ Worldwide there have been more than 375, 000 laboratory confirmed cases of pandemic influenza H1N1 in 2009 and thousands deaths reported to WHO.⁵ Most illnesses, especially the severe ones and deaths has occurred among healthy young adults.⁶

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The illness is generally mild except in people in high risk groups as pregnant women and people with medical conditions like other influenza viruses. A/H1N1 influenza spreads by coughing, sneezing, or touching contaminated surfaces followed by touching the nose or mouth. Transmission of the new strain is human-to human however eating cooked pork products will not transmit the virus. Its symptoms are similar to those of influenza in general.

It includes fever, cough, sore throat, body aches, headache, chills and fatigue. The 2009 A/H1N1 outbreak has shown an increased percentage of patients reporting diarrhoea and vomiting. Most people who get influenza will recover in a few days to less than 2 weeks, but some people will develop complications such as pneumonia which may be life-threatening resulting in death.³

The media and the government play a major role in educating and awareness among people about the disease, its causes and remedies.⁷ Different agencies are formulating strategy on how to inform and protect the people from Pandemic H1N1 Influenza.

The flu can make chronic health problems worse. Vaccines are available for different kinds of swine flu. However, vaccines against the new strain are being developed, with safety profile like seasonal flu vaccine. Keeping all this in view the study was designed to test the knowledge and assess the behavior of Interns posted in various department at Index Medical College, Hospital & Research Centre, Indore (M.P.), since they are the most vulnerable group in medical fraternity.

AIM & OBJECTIVES: The aim of this study was to determine Intern's knowledge, awareness, attitude and behavior regarding swine flu and its vaccination at the Index Medical College, Hospital & Research Center, Indore (M.P.).

MATERIAL & METHODS: This was a cross sectional study, carried out during March- April 2013 at Index Medical College, Hospital & Research Centre, Indore. A pre designed, pre tested questionnaire was used to conduct this survey. 209 Interns from various departments were included in this study. As per guidelines, minimum sample size required for KAP study was 200.⁸ Inclusion criteria was willingness to participate in this study and students who returned improperly/partially filled form were excluded. 206 Intern's returned properly filled forms. SPSS version 20 was used for statistical analysis. All the selected participants were interviewed through pre-tested and pre-designed questionnaire. This pre designed instrument consists of socio-demographic characteristics (age, sex, education and occupation), knowledge and awareness about the disease (nature, mode of spread/transmission, clinical features and preventive measures).

RESULTS: Out of 206, 110 were boys and 96 girls i.e. 53.4% and 46.6% respectively. The age of Interns who participated in study was 21-31 year with the mean age of 24.

Almost all the Interns, nearly 98.3% had heard about swine flu and were aware of its occurrence. 17.4% were unaware of H1N1 with the name of swine flu. Only 88.1% of boys and 76% of girls answer correctly. 7.2% boys and 17.7% girls answered as H5N1 and H9N7 was the answer given by 4.5% boys and 2% girls. The difference was found to be statistically significant.

Newspaper was found to be the most common source of knowledge regarding swine flu for boys and girls (37.2% and 39.5%, respectively), as in hostels, the main source of information is local daily papers only. TV (34.5% boys & 34.3% girls) was the second most common while lectures/ Medical Books stood next to TV, among 24.5% boys and 22.9% girls.

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The common symptoms in swine flu as a cough/sore throat, was answered by 56.4% boys and 51.5% girls. High grade fever by 15.4% & 30.4% boys and girls respectively, diarrhoea was answered by 3.1% girls. Running nose the common symptom and most often encountered in clinical practice was answered by (28.1% males and 14.7% females); this difference was found to be statistically significant.

84.5% of boys and 89.5% of girls believed that coughing/sneezing is responsible for spread but 4.1% girls do believe that it spreads by parental route also. 60.1% of the students, (65.4% boys and 54.1% girls) had myth that eating uncooked or semi cooked pork can transmit this disease, while 12.7% boys and 11.4% girls were not sure about this answer.

Nasopharyngeal swab collection, for the isolation of virus, was answered correctly by 59.7% Interns while 21.3% thought, throat swab and 13.1% as nasal swab, a better method. Location of testing laboratory, being at Jabalpur in Madhya Pradesh, was correctly known to 46.6% of the students.

Intramuscular route for vaccination in swine flu was most preferred answer by 52.4% (54.6% in boys and 45.3% in girls). 21.8% answered it as, Intra dermal. Only 19.4% answered as Intranasal. The difference was found to be statistically significant. Most common adverse effect following vaccination, as allergic reaction was answered by 39.3% of students, while 24.2% thought anaphylactic shock as most common one. On asking whether they have received vaccination in past, 82.5% answered negative, 10% of the boys and 5.2% of the girls didn't know about their status regarding vaccination.

Use of mask as preventive measure against swine flu was known to 50% boys and 43.2% girls. However 54.1% of girls and 40% of boys chose vaccination as preventive measures while antiviral drugs was answered by 4.5% boys and 2% girls. When asked about what they will do about the suspected case of swine flu, only 27.6% gave correct answer as categorization of the case, when asked, what method they will use to protect themselves, while visiting the patient, most (83.9%) of them answered, face mask. Nearly 9.7% opted vaccination as a preference. For the Quarantine period, maximum number of girls (43.7%) answered correctly as 7-10 days compared to 21.8% boys. The difference was found to be statistically significant.

Regarding advice to contact or family members, 44.1% answered that they will suggest isolating the case. 24.7% answered about the vaccination and education. 79.6% of the students were ready to give the preference to the case, 11.1% were not sure about this, but at the same time, 63.1% of the students were not ready to handle the case if they do not have their gloves and mask.

DISCUSSION: Although Novel Influenza A/H1N1 has caused pandemics in this century, there are very few studies in this field on medicos. In this study almost all, i.e. 98.3% students had heard about swine flu as a disease against 88%, as seen in Patiala⁹, 94% in Vadodra¹⁰ and 97% in Bareilly¹¹. Present study showed newspaper as main source of information (38.3%). Where as in study done at Patiala 76%⁹ and in Bareilly 81.2%¹¹ it was TV. Running Nose as most common symptom was known to 21.8% where as in study done at Patiala it was 33.5%,⁹ at Vadodara 82%¹⁰ and in Bareilly it was 77.2%¹¹ In our study, 86.8% believes coughing and sneezing as a most common mode of transmission whereas study done in Bareilly food, water and mosquito bite (11.7%, 10.5% and 9% respectively) was believed to be the mode of transmission.¹¹ So there is lot of variation in KAP, which can only be explained as variation in basic knowledge among students in various states.

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In the present study 60.1% of the students, had myth that eating uncooked or semi cooked pork can transmit this disease whereas at Patiala 40.6% had the same feeling.⁹ 47% of students in our study prefer Mask as the best way to control swine flu. Hand washing as effective way to prevent swine flu transmission was known only to 2.1% of students, while, Rubin et al showed that maximum number of participants (87.8%) opted for hand washing as, the best way to control infection, as compared to mask which was only 24.3%.¹² In studies at Vadodra¹⁰ 82% and Patiala⁹ 36.5% opted for hand washing. This only confirms the variation among the practices followed in various hospitals.

CONCLUSION: Newspaper and TV are the most common sources of knowledge regarding swine flu among interns as seen in other studies also. Internet, hoardings, pamphlets were found to play little role in spreading awareness. However, most of the interns are aware of Swine flu & its associated factors like about its vaccination and prevention but there is a substantial gap observed during this study. Local NGOs and Govt. body should work together on scientific and effective information dissemination by the mass media not only to general population but also to health care provider.

There was a total lack of awareness about simple procedure like Hand washing which is the most basic and easy preventive measure and needs to be given emphasis. Most of the candidates were having a myths regarding swine flu which is of serious concern because as a doctors they must know basic elements about disease. Low awareness among Interns is a big concern & calls for appropriate action for increasing awareness.

Health education sessions, seminars, workshops for creating awareness should be organized on time to time basis, not only among the Interns but also for all health care providers including students, by Public Health Professionals.

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Date of Submission: 10/01/2014.
Date of Peer Review: 11/01/2014.
Date of Acceptance: 22/02/2014.
Date of Publishing: 06/03/2014.