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RESEARCH ARTICLE

ATTITUDE OF MEDICAL HEALTH WORKER TOWARDS SEASONAL INFLUENZA VACCINE

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ABSTRACT

This study was performed from November 2018 to the end of December 2018 to assess knowledge and awareness among a sample of paramedical staff regarding seasonal influenza vaccine in Mosul health workers .The results of demographic data of the studied sample showed that (male : female ratio was (1:1.1) , more than half of the sample selected were females (52.8%), while males were (47.2%). The age of the studied sample at the time of study was between (20-57) years. The peoples of the sample were working in different health centers. The study revealed that there is significant association between paramedical staff education and their knowledge level for using the vaccine in preventive programs. No significant association has been found between (age groups, Gender, residence and working centers) of paramedical staff and their knowledge. Results revealed that 16% of medical staff studied in Mosul received influenza vaccine, and 35.2% of sample who did not receive vaccine had a doubt about effectiveness of vaccine which is manly in medical staff 42% rather than 29% of sub staff, influenza vaccines are valid for one year only. The study recommendation is to intensify the general programs for health educations towards the importance of influenza vaccine for all paramedical staff(staff and sub staff).

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INTRODUCTION

Influenza is an acute systemic viral infection that primarily affects the respiratory tract (Colledge, 2010) Influenza name originated in the 15th century, from an epidemic in Italy attributed to 'influence of stars' (Public Health Foundation, 2012). It is the most important viral respiratory infection because of its frequency and complication rate, particularly in the elderly (Longmore, 2007). It is caused by influenza A virus or, in milder form, influenza B virus. Infection is seasonal ,and variation in the haemaggltinin (H) and neuraminidase(N) glycoproteins on the surface of the virus leads to disease of variable intensity each year(Colledge, 2010). Spread is by droplets, its short incubation period (Colledge, 2010; Public Health Foundation, 2012; Longmore, 2007; Wody, 2005) days (Longmore, 2007), and efficient person to person transmission ,makes it hazardous to patients and staff in health care facilities (Wody, 2005). Immunity: Those attacked by one strain are immune to that strain only (Longmore, 2007). Influenza is an important public health problem and it causes significant morbidity and mortality ,especially in elderly and greatest risk groups.(5) Annually, seasonal influenza infections occur in epidemics worldwide and rated to cause(3-5 million) cases of serious illness and 250,000-500,000) deaths (www. aap.org/immunizations)

Types of Vaccine: Two types of influenza vaccine are widely available: Inactivated influenza vaccine (IIV) and Live attenuated vaccine (LAIV).

Traditionally, influenza vaccines (both IIV and LAVI) have been produced to protect against 3 different seasonal influenza viruses also called trivalent vaccine (www.euro. who.int>vaccination>types) Annual vaccination is the cornerstone for preventing infection, sever disease and mortality from influenza (Wake, 2006). Inactivated vaccines have been available since 1940s (Van Delden, 2008), but live attenuated influenza vaccine was licensedin2003 (Public Health Foundation, 2012). Seasonal influenza vaccine control in Iraq targets those with chronic diseases, pilgrims and all health care workers (MOH, 2009) , astudy show that around 23% of healthcare workers may become infected with flu during a mild flu season and, of these, 28–59% will have subclinical illness (17) Health care workers (HCWs) are a target group for influenza vaccination because of their contact with susceptible patients during the course of employment (19) (WHO) recommends vaccination of all healthcare workers world-wide to protect staff and prevent potential transmission to their patients.(18) The best time to have a flu vaccine is in autumn, from the beginning of October to end of November ,but do not worry if you have missed it, you can have the vaccine later in winter (http://www.cdc.gov/flu/ protect/ who shouldvax. htm#flu-shot) Trivalent flu vaccines protect against two influenza A viruses and one influenza B virus (http://www.cdc.gov/flu/protect/key acts.htm.)

How effective is the flu vaccine?: Vaccine efficacy for healthy adults and children ranges80-100% (Musana, 2004) Studies have shown that the flu vaccine will help prevent you getting the flu. It won't stop all flu viruses and the level of protection may vary, so it's not a 100% guarantee that you'll be flu-free, but if you do get flu after vaccination it's likely to be milder and shorter-lived than it would otherwise have been. There is also evidence to suggest that the flu vaccine can reduce your risk of having a stroke. (12) Vaccinations contraindications include: Egg allergy, acute febrile illness, first trimester of pregnancy, previous Guillian-Barre syndrome (CDC, 2004). In addition, live attenuated vaccine contraindications are age <5 or >65 yrs, immune compromised patients, and children < 18 months receiving aspirin (Manian, 2005). Flu shots have not been shown to cause harm to pregnant women or their babies. CDC and FDA conduct ongoing monitoring of the safety of seasonal influenza and other vaccines licensed for use in the United States .(16). Note: There are certain flu shots that have different age indications. For example people younger than 65 years of age should not get the high-dose flu shot and people who are younger than 18 years old or older than 64 years old should not get the intradermal flu (http://www.cdc.gov/flu/protect/ who should vax.htm#flu-shot).

MATERIALS AND METHODS

A cross-sectional study was carried out for the period from the November 2018 to the end of December 2018. The study was performed to determine Knowledge and awareness regarding influenza vaccine among a sample of Paramedical Staff in Mosul City, were chosen by simple random sampling technique. 250 studied sample were obtained by direct interview with the paramedical staff (doctors, pharmacist, nurses….ect) by using detailed self-reporting questionnaire form.

Form of the questionnaire: Number of questions: 12 :-The computer facility was used for storage and analysis descriptive statistics including the use of frequencies , percentages. The Chi-Square statistical test was used to test for associations between variables with the results being considered as statistically significant when the p value was (< 0.001).

RESULTS

Table (1): shows the distribution of the paramedical staff according to age groups and gender there was a distinct females preponderance, the age range at the time of study was between (21-62) years, (male : female ratio was 1:1.1) and the highest percentage (35.2%) were in the age group (30-39) years and the lowest percentage (18%) were in the age group (age > 50) years Table (2): Regarding the taking the influenza vaccine by the paramedical staff (staff and sub staff) to Control Seasonal Flu, the majority of the staff take the vaccine due to Anxiety from severe illness due to influenza while the majority of sub staff take vaccine To maintain their health. Table (3): Regarding refusing influenza vaccine by the paramedical staff (staff and sub staff) , the majority of the staff and sub staff refuse the vaccine due to doubt about effectiveness of vaccine

DISCUSSION

Regarding the taking the influenza vaccine by the paramedical staff (staff and sub staff) to Control Seasonal Flu in Mosul which is may simulate in Europe, healthcare workers, with reported vaccine coverage as low as 30% or less.(7) Study results also show that just Less than a quarter of medical staff studied, were vaccinated WHILE IN KARBALA more than that according to same study in Karbala (20) Around 35% of unvaccinated staff had significantly poor vaccine knowledge, compared with about two thirds of unvaccinated staff in Karbala (20) Possible explanation might be lack of national

Table 1. Distribution of Studied Sample according to Age groups and Gender

age	Male	female	Total	
20 - 29	16	40	56	22.4%
30 – 39	44	44	88	35%
40 – 49	30	31	61	24.4%
50 +	28	17	45	18%
total	118 47.2%	132 52.8%	250	100%

Table 2. Distribution of studied sample according to their positive attitude towards influenza vaccine

	Your reasons for vaccine	staff		sub staff		total	
1	To maintain my health	5	26.3%	12	57.1%	17	42.5%
2	Worry about flu infection	3	15.7%	5	23.8%	8	20%
3	Anxiety from severe illness due to influenza	8	42.1%	3	14.2%	11	27.5%
4	Prevent infection of other family members	1	5.2%	0	0	1	2.5%
5	The presence of a chronic medical condition	2	10.5%	0	0	2	5%
6	other reasons	0	0	1	4.7%	1	2.5%
	Total	19		21		40	

Table 3. Distribution of studied sample according to their negative attitude towards influenza vaccine

	The reasons that prevented you from getting the vaccine	Staff		sub staff		Total	
1	Fear of getting influenza	6	6%	21	19%	27	12.8%
2	Flu is not considered a threat	15	15%	19	17.2%	34	16.1%
3	Doubt about effectiveness of vaccine	42	42%	32	29%	74	35.2%
4	I do not have time to take the vaccine	23	23%	10	9%	33	15.7%
5	Ignorance about vaccine	8	8%	17	15.4%	25	11.9%
6	Other reasons	6	6%	11	10%	17	8%
	total	100		110		210	

data awareness about influenza disease morbidity and ortality. Another possible reason is that the plan has not been implemented and was not included in immunization schedule .It is clear that viruses as an etiology of seasonal flu infection the majority of paramedical staff correct responses regarding the causative virus (97.11%)(13) .Each year, the viruses that are most likely to cause flu are identified in advance and the World Health Organization (WHO) recommends which type of flu virus strains to include in the vaccine.(14). To increase vaccination uptake, it is indispensable to increase insight to the vaccination uptake among different risk groups and to deal with the drivers and barriers to vaccination.

Conclusion

This study show that Medical staff and sub staff Knowledge about influenza vaccine is low. Knowledge is not associated with gender, occupation, and education degree, but significantly associated with doubt about efficacy of vaccine, and vaccination status. Nineveh health institute need programs to increase knowledge about influenza vaccine, and update Medical staff and sub staff via continuing medical education about importance of the vaccine.

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