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IS THERE ANY AFFINITY BETWEEN URINE PH AND MEDICINE DEPENDENT FLU TREATMENT?

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ABSTRACT

Influenza is gifted by virus and its novel strain increase hospitalization and death rates. Severity of influenza is assessed by its symptoms. Trivalent and tetravalent vaccine use for different strains. Different strains associated with different mortality and attack rates. Urine pH is one of the signs of normal function of our kidney. Moreover, different diets influenced urine pH value. Strip method use to check the pH of 100 available fresh urine sample. We tried to see any possible relation of urine pH with individuals. Mostly male use medicine to treat flu as compared to females. Results disclose the range among 5 to 9. Most common noted pH is 6 in both types of individual who use or not use medication for flu. At the end, we concluded there is non-significant relation between flu treatment and urine pH.

KEYWORDS

Influenza, Mortality rate, Trivalent, Tetravalent, Vaccine and Urine pH.

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INTRODUCTON

In united states, 200,000 hospitalization and 20,000 deaths are estimated for Influenza. Myalgia (Muscle pain), greater than 97% oxygen saturation and absence of gastrointestinal (GI) symptoms helpful to distinguish influenza from other respiratory diseases. Sometime lack or ignorance of subtypes lead inappropriate results (Abreu and Ross 2018)¹. For example, trivalent vaccine considers highly for type A virus as compare to type B virus. Some parameters like transmissibility, reproduction number, attack rate, hospitalization rate and

incubation and infectious period help in assessment of subtypes of influenza. Incubation time (time between infection and symptoms onset) and Attack rate (risk of getting any disease) for influenza type A is 1.4 days and 2.3% to 12.3% while for type B is only 0.6 days and 0.6% to 5.5% respectively. H1N1 (Spain flu) and H2N2 has lower attack rate than H3N2 (Hong Kong flu). H5N1 and H7N9 are at top in mortality rate (Park and Ryu 2018)².

Urine pH is the concentration of hydrogen ions in urine. One of the renal functions is to regulate the pH of blood which is done by absorption and excretion of hydrogen ion from nephron to blood capillaries and vessels. Normally urine is acidic and its pH lie between 4.5 to 8. Respiratory and metabolic acidosis make it more acidic. Freshly voided urine is used because with the passage of time it become alkaline due to bacterial urea to ammonia conversion activity. Production of organic acid by bacterial metabolism of glucose increase acidic pH which may lead stone formation. Proteinaceous diet and acidic fruits like cranberries lower the pH mean make it acidic. High pH associated with urinary tract infection and renal calculi. While vegetarian diet and metabolic alkalosis rise pH mean make it more alkaline (Steggall 2007)³. Litmus paper, Nitrazine paper, glass electrode and dipstick are used to measure USG (Chakraborty)⁴.

MATERIAL AND METHODS

Urine sample, gloves, watch, urine test strip, notebook and waste beg are required for urinalysis.

Methodology

Urinalysis is performed by using dipstick method. To perform this experiment, we just need fresh urine sample in which strip can dip for 2-3 seconds and then read test pads with respect of available values on strip bottle. Record values are noted and discard test strip. At the end hand wash down.

RESULTS AND DISCUSSION

After performing urinalysis, results obtained and explained with graphs and tables. Firstly, presented Graph No.1 showed the numbers of 36 males and 64 females. Table No.1 shows the ranges of pH which relate with medicine usage and without usage for flu. Those individuals who used medicine they show mostly 6 and then 7 as common pH. 36 and 23 individuals display 6 as most common pH. After performing average with standard deviation and then applying T test we obtained greater than 0.1 value which declared non-significant relation for medicine dependent and independent treatment for flu as shown in Table No.2.

Table No.1: Relation pH with flu treatment with or without medicine

S.No	Results	Total	P _H				
			5	6	7	8	9
1	Use medicine for flu	58	5	36	8	3	6
2	Treat flu without medicine	42	5	23	8	4	2

Table No.2: Relation of urine pH (Mean ± SD) with medicine dependent treatment

S.No	Gender	Medicine dependent treatment	Flu treatment Without medicine	p value
1	Male	6.42±1.76	6.63±1.12	0.5
2	Female	6.28±0.93	6.17±0.75	0.6
3	Both	6.46±1.08	6.40±0.98	0.5

p<0.1 = Non-significant

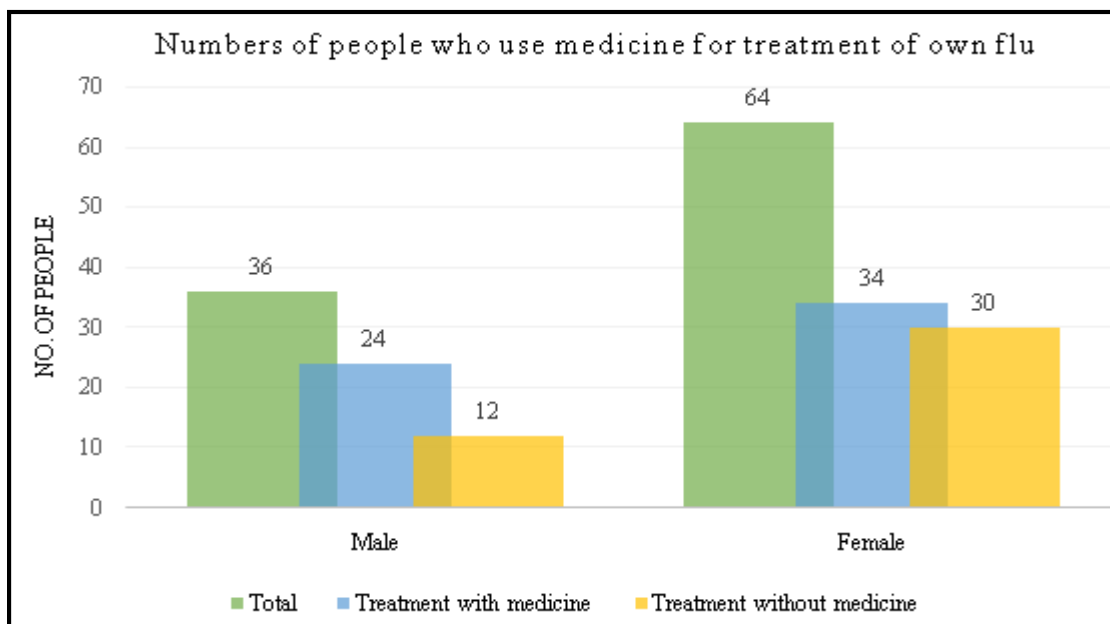


Figure No.1: Numbers of people who use medicine for treatment of own flu

CONCLUSION

There is no significant relationship observed in urine pH and medicine dependent and independent treatment for flu.

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CONFLICT OF INTEREST

We declare that we have no conflict of interest.

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