**Nurs232 homework 1**

**I. In a village of 10,000 population in 1/1/1998, 1000 people got infected with yellow fever. From the infected people, 800 died and the rest of the infected people remained infected carriers for their life. The age distribution of people, cases and deaths was as follows:**

|  |  |  |  |
| --- | --- | --- | --- |
| Age | Total population | Total infected | Total Deaths |
| Less than 1 yr | 1500 | 750 | 700 |
| 1-4 years | 2000 | 150 | 75 |
| 5+ | 6500 | 100 | 25 |
| Total | 10,000 | 1000 | 800 |

* **Answer the following:**
1. **Can you conclude from this data that there is a disease outbreak (epidemic) occurring in the village? Justify your answer.**

No its non-epidemic, there is no enough data that help us to determine if its epidemic, الجواب غلط

1. **What is the child (1-4 years old) mortality rate (risk of dying)?**

***Risk= Number of death/Total population***= 75/2000= 0.0375

1. **Which age group has the best prognosis (lowest case fatality)? Show in calculation.**

Less than 1 yr:

**Case fatality rate= Total deaths/ Total infected**= 700/750= 0.93333 \*100%= 93.33%

1-4 years:

**Case fatality rate=** 75/150= 0.5 \*100%= 50%

5+:

**Case fatality rate=** 25/100= 0.25 \*100%= 25%

-According to these calculations the 5+ age is the **best prognosis**.

**II.10,000 employees were screened for diabetes mellitus. Diabetes was detected in 1000 of these employees during the initial screening. 45 new diagnoses were detected at a subsequent annual screen 1 year later.**

1. Calculate the prevalence of diabetes at the beginning of screening.

**Prevalence= Number of employees/ Total population=** 1000/10000= 0.1 \*100%= 10%

1. Calculate the annual risk of diabetes among these employees.

**Risk= Number of people who have the disease/ total population=** 45/1000= 0.0045