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University Examinations 2023/2024

THIRD YEAR, SECOND SEMESTER EXAMINATION FOR THE DEGREE OF BACHELOR OF PUBLIC HEALTH, BACHELOR OF HUMAN RESOURCE INFORMATION MANAGEMENT SECOND YEAR, SECOND SEMISTER

HPP 3322/HPR 3223: DISEASES SURVEILLANCE AND RESPONSE

DATE: APRIL 2024   **TIME: 2 HOURS**

INSTRUCTIONS:

1. Answer Question ONE, and any other TWO

QUESTION ONE (30 Marks)

Define diseases surveillance and describe its application to public Health.   (6 marks)

Describe briefly the integrated diseases surveillance and response (IDSR) approach   (4 marks)

   i.   Define standard case definition as used in IDSR   (4 marks)

   ii.   Describe three roles of communities in case detection   (6 marks)

Describe ten (10 ways through which diseases, conditions, and events may come to the attention of the health system.   (10 marks)

+QUESTION TWO (20 MARKS)

On 17 January 2018 (3:00 am), a 23- year old women named Halima died from severe acute respiratory illness. Her death occurred within 48 hours of admission to a private hospital. The country had been experiencing an avian influenza outbreak among poultry. So the district team was asked to investigate Halima's death.

The team learned that Halima was first admitted for her illness to a private medical Centre in Sondu city on 11 January 2018. She said her symptoms began on 8 January 2018. Her chief complaints were Severe abdominal pain, high fever and vomiting. She developed cough and shortness of breath and was referred to a private hospital on 15 January 2018.

At the private hospital, the attending physician suspected infection with avian influenza because the patient reported exposure history to poultry before her onset of illness. She had bought a chicken in the market on 21 December 2017, and during the return to Halima's home, the chicken died. Halima was involved in de-feathering and preparing chicken when she got home. Halima was again involved in de-feathering and preparing the poultry on 24 December 2017. Halima did not report any other exposure to poultry after those two events.

The team also learned that the patient had been in close contact with her mother who died of acute viral pneumonia on 06 January 2018 (2:00 am).

Due to the circumstances of her death and exposure, the private hospital immediately alerted the district health authorities after Halima's death.

You a member of the investigating team in the district. Based on the information in the case report, please answer the following questions:

1. What would be your suspected case definition? (2 marks)
2. What sources of information would you consult during the investigation? (4 marks)
3. What specimen(s) should be collected to confirm the diagnosis? (4 marks)
4. How should specimen have been prepared, stored and transported? (5 marks)
5. What steps would you take to improve community surveillance for suspected cases or deaths due to priority diseases, conditions, or events? (5 marks)

QUESTION THREE (20 MARKS)

On 10 January 2018, Amina, a 25-year-old fish monger from Bibi neighbourhood in Kati town (Njali District) reported to Kati Health Centre complaining the she has watery diarrhoea for the past two days. She had also vomited twice that morning. She lived in the same household with her three children, husband and her step-mother. There have been episodes of cholera in a neighbouring Bahati district in the last 3 months. Amina travelled there three day ago to go to her aunties funeral.

1. When should the health staff report this case to the next level?   (2 marks)
2. What information should be collected and reported about this case?   (4 marks)
3. Use the information from Amina's case to record information on the form that is on the next page.

You may need to leave some rows blank because you may not have all the information you need.

(14 marks)

IDSR Case Report Form		
Variable / Questions		**Answers**
XX	**Records unique identifier(YYYY-Week-CCC-PPP-DDD-Case nnn)**	
1.	Reporting country	
2.	Reporting Province Region	
3.	Reporting District	
4.	Reporting site (Health Facility. Camp….)	
5.	Disease Event (Diagnosis)	
6.	In-patient or Out patient	
7.	Date seen at health facility (day month year)	
8.	Patients name(s)	
9.	Date of Birth (day month year)	
10.	Age (…Year…Months…Days)	
11.	Sex. M= Male F=Female	
12.	Patients residence: Name of Community Neighbourhood	
13.	Name of Town City	
14.	Name of District of residence	
15.	Urban Rural? (U=Urban R=Rural)	
16.	Address, (cell)phone Number….if applicable, name of mother and father if neonate or child	
17.	Occupation	
18.	Date of onset(day month year)	
19.	Travel history (Y or N). if Yes, state destination	

20.	Number of vaccine doses received in the past against the disease being reported**	
21.	Date of last vaccination	
22.	Date specimen collected	
23.	Date specimen sent to lab	
24.	Laboratory results	
25.	Outcome. (Alive, Dead, Transferred out. Lost to follow-up or unknown)	
26.	Final Classification Confirmed, Probable, Compatible, Discarded Suspected Or Pending	
27.	Date health facility notified District (day month year)	
28.	Date form sent to district (day month year)	
29.	Person completing form. Name. function. signature	

*Disease Event (Diagnosis):

AFP, Anthrax, Cholera, Bloody Diarrhoea, Dracunculiasis (Guinea Worm Disease). Neonatal Tetanus. Non-neonatal Tetanus, Measles, Meningitis, Yellow fever, Dengue, Chikungunya, Viral Haemorrhagic fever, Plague. Any other Event or disease of public health importance (specify)

**Measles, Neonatal Tetanus (TT in mother), Yellow Fever, and Meningitis etc.

For case of Measles, NT (TT in mother), Yellow Fever and Meningitis: 9=Unknown

For Measles. TT. YF-documented by card For Meningitis by history)

QUESTION FOUR (20 MARKS)

Data analysis is an important component of diseases surveillance.

    a) Describe the importance of analyzing data for surveillance   (4 marks)

    b) Discuss in brief the uses of epidemiology surveillance   (8 marks)

    c) Discuss any four surveillance methods for data collection   (8 marks)