

Date of examination 14 /6/2017
Duration of examination (2 hours)
Total marks "80 marks"



Fayoum University
Faculty of nursing

Epidemiology exam For 4th year nursing students

I- Short questions:

1. Regarding **typhoid**, give the following; **reservoir, portal of exit, modes of transmission, portal of entry, and susceptibility**
(10 marks)

Reservoir:

- Humans : case (typical-mild)
- Carrier (incubatory-convalescent- asymptomatic)

Exit: small intestine & gall bladder-----feces
Kidney-----urine

Entry: Through gastrointestinal tract

Mode of transmission:

- Ingestion of contaminated food or water (handling-dust-flies)
- **Direct food borne infection** feco-oral

Susceptibility:

Age: all

Sex: males are more affected than females

Environmental factors: the disease spread among the low socioeconomic classes.

Immunity: inadequate

Season: summer

2. Give short account on:

(10 marks for each)

Maternal acquired immunity:

- It is a passively natural acquired immunity.
- The pregnant provides the fetus with antibodies in the last intrauterine weeks.
- Acquired immunity is temporary, and fades in about six months.
- Maternal antibodies in serum of mother may be naturally acquired or artificially induced.
- But there is no maternally acquired immunity for: pertussis and tuberculosis, Pertussis: due to big molecular size of Ig M that cannot pass through placenta. Tuberculosis: immunity is cell-mediated

b- Sabin polio vaccine

Nature;

Live attenuated trivalent vacc.

Dose;

Zero dose at birth and 3 primary doses of 2 drops 8 wks apart at 2, 4, 6 months---booster at 9, 12, 18 months

Route;

oral

Efficacy; (protective value);

95 %

protective duration.

Life long

Applications ;

Compulsory (routine vacc.)

Vaccination Campaign

Advantages;

Local & Humoral immunity

Cheap

Easily used

Adverse reaction

General, VAPP

Contraindications;

Pregnancy.....

Storage

Cold chain (-20 °c)

c- Compulsory vaccination during first 18 months of age (age-route)

Age	Vaccine	Route
After birth	OPV	2 drops oral
	HBV	IM
1st 3 months	BCG	I.D No tuberculin
2 months	OPV	2 drops oral
	DPT	SC or IM
	HBV	IM
	HIB	
4 months	OPV	2 drops oral
	DPT	SC or IM
	HBV	IM
	HIB	
6 months	OPV	2 drops oral
	DPT	SC or IM
	HBV	IM
	HIB	
9 months	OPV	2 drops oral
12 months	OPV	2 drops oral
	MMR	SC
18 months	OPV	2 drops oral
	DPT	deep SC or IM
	MMR	SC

3. Compare between HBV and HCV as regard exit, modes of transmission, chronic infection and prevention (10 marks)

Hepatitis Virus	B	C
Exit	blood/ blood-derived body fluids	blood/ blood-derived body fluids
Modes of transmission	1. Parenterally 2. Prenatal 3. Sexual	1. Parenterally 2. Prenatal?? 3. Sexual??
Chronic infection	Yes	Yes
Prevention	1. pre/post- exposure Immunization by HBV vaccine 2. blood donor screening; 3. risk behavior modification	1. blood donor screening; 2. risk behavior modification

II-Multiple choice questions

(10 marks)

- 1- Human reservoir of poliomyelitis may be
 - a. Case
 - b. Carrier
 - c. Sub clinical infection
 - d. All of the above

- 2- Carriers are important than case because
 - a. Move freely
 - b. Well diagnosed
 - c. Small in numbers
 - d. Known to others.

- 3- Modes of transmission of poliomyelitis includes
 - a. Droplet
 - b. Food borne
 - c. Contact
 - d. A and B

- 4- Percutaneous infections include all of the following **except**
 - a. Contact infection
 - b. Injection infection
 - c. In-utero infection
 - d. Arthropod-borne infection

- 5- Carrier may be
 - a. Incubatory
 - b. Convalescent
 - c. Healthy
 - d. All of the above

III-Cross match questions

(10 marks)

A- Exit

- 1- Respiratory **b**
- 2- Saliva **c**
- 3- Skin **d**
- 4- Genital secretions **e**
- 5- Feces **a**

Organism

- a. HAV
- b. Tuberculosis
- c. Rabies
- d. Chicken pox
- e. Sexual transmitted diseases

B- Type of vaccines

- 1- A virulent bacterial vaccine **d**
- 2- Organism extract **e**
- 3- Killed bacterial vaccine **a**
- 4- A virulent viral vaccine **b**
- 5- Killed viral vaccine **c**

Organism

- a. Pertussis
- b. MMR
- c. Salk vaccine
- d. BCG
- e. Diphtheria

IV-Put true (√) or false (×) in front of each sentences

(10 marks)

- 1- Outbreak is epidemic affect more than one country f
- 2- Immunity is acquired only from infections which only develop symptoms f
- 3- Skin is considered as one of the entries of organisms t
- 4- Feces is portal of exit in poliomyelitis infections t
- 5- Human reservoir of infection is only in form of carrier f
- 6- In-utero infection is a form of vertical mode of transmission t
- 7- Oral route is one of the active immunization methods t
- 8- Administration of MMR vaccine give lifelong immunity t
- 9- Cases play a little role in infectious diseases transmission t
- 10- Infection of the individual by any infectious agent must lead to develop symptoms and signs f

Good Luck