

- Q1 Best study design to establish causality out of all research study designs
- (A) RCT
 - (B) Cohort
 - (C) Meta analysis
 - (D) Systematic review

Ans (C) Meta analysis

Explanation :

In evidence based medicine :

Case report < case series < ecological < cross-sectional < case control < prospective cohort < retrospective cohort < RCT < systematic review < meta-analysis

- Q2 Discrete probability distribution that expresses probability of a given number of events in a particular time frame ?
- (A) Normal distribution
 - (B) Skewed distribution
 - (C) Poissons distribution
 - (D) None of the above

Ans (C) Poissons distribution

Explanation:

Suppose , average number of people who visit restaurants in 7 days is 500. By POISSONS distribution we can find out the number of diners who visit the restaurant on a particular day.

- Q3 Which of the following device is used to tell the status of heat exposure to vaccine ?
- (A) VMV
 - (B) VVM
 - (C) VCV
 - (D) VVC

Ans (B) VVM

Explanation :

VVM : Vaccine vial monitor

Marker of Cold Chain maintainence

VVM has:

1. Outer blue circle
2. Inner white square

This is grade 1

If temperature is not properly maintained then the inner white square changes color in sequence:

1. inner square becomes light blue (grade 2)
2. inner square becomes same as outer circle (grade 3)
3. inner square becomes darker (grade 4)

According to WHO recommendations :

1. Grade 1 and 2 vials are usable
2. Grade 3 and 4 vials are not usable, discard the vaccine

Q4 Difference between highest and lowest level in data ?

- (A) Co-efficient of variation
- (B) Interquartile range
- (C) Range
- (D) Variance

Ans (C) Range

Explanation :

Co-efficient of variation is = $[\text{SD}/\text{mean}] \times 100$

Variance = $[\text{SD}]^2$

Interquartile range :

Q3-Q1 (difference between 75th percentile and 25th percentile)

Q5 In which of the following conditions hand sanitizer can be used

- A. Before examining a patient
 - B. After examining a patient
 - C. After touching patients surroundings
 - D. Hands are visibly soiled
- (A) A, b, d
 - (B) A, b, c, d
 - (C) A, b, c
 - (D) A, b

Ans (C) A, B, C

Hand sanitizer should contain minimum 60% alcohol

Hand sanitizer is not recommended when people are handling food

Q6 You are the medical officer of a PHC. A girl < 18 year old approaches to you who has H/O sexual assault. The female was brought by parents to the hospital but they are refusing any examination to be conducted by doctor. What should you do next as a medical practitioner.

- (A) Inform police
- (B) Conduct examination with consent from victim
- (C) Collect swabs without consent
- (D) Document refusal

Ans (A) Inform police

Explanation :

Victim is a minor , so consent should be taken from parent.

If parents refuse consent for examination, it has to be documented.

Swab collection without consent cannot be done

Q7 Which among the following has the highest case fatality rate?

- (A) Rabies
- (B) Ebola
- (C) Nipah
- (D) Influenza

Ans (A) Rabies

Explanation :

CFR =

$[\text{number of deaths due to a disease} / \text{total number of cases}] \times 100$

Its actually a proportion.

1. CFR rabies = 100%
2. Average CFR for Ebola = 50%
3. [for Zaire Ebola CFR=90%]
CFR Nipah = 40-75%
4. CFR influenza= 0.5%

Q8 In steroid dependent nephrotic syndrome , select the best option with reference to vaccines

- (A) All live vaccines can be given
- (B) Both live and killed vaccines can be given
- (C) All killed vaccines can be given
- (D) None of the above

Ans (C) All killed vaccines can be given

Explanation :

Live vaccines will precipitate further immunosuppression.

Corticosteroids are themselves immunosuppressants .

Similarly in pregnancy(another immunosuppression state), all live vaccines are contraindicated except yellow fever.

In asymptomatic HIV live vaccines are not contraindicated.

In symptomatic HIV all live vaccines are contraindicated except Varicella , MMR/MR

Q9 Identify the life cycle

- (A) Ebola virus disease
- (B) Plague
- (C) Leptospirosis
- (D) Nipah virus

Ans (C) Leptospirosis

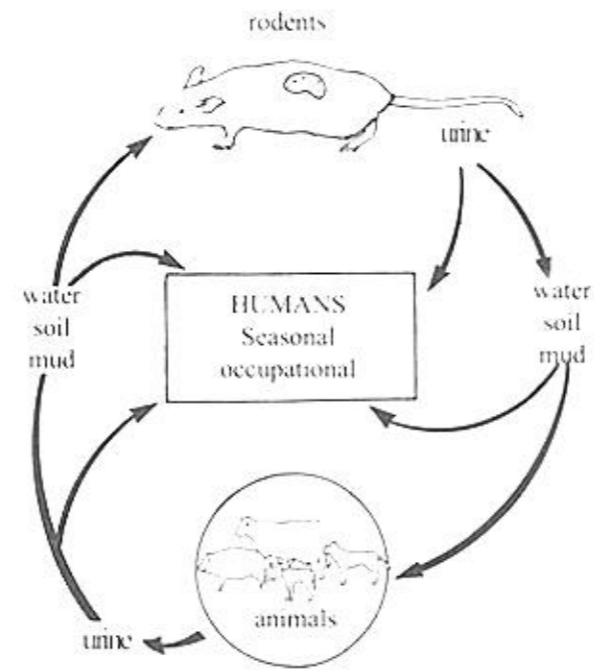
Explanation :

Caused by *Leptospira interrogans*

It is secreted in urine of infected animals.

From urine it can contaminate water, soil.

So via the feco-oral route it can be transmitted to grazing animals and humans



Q10 You are the medical officer of a PHC. What would you prefer for mass prophylaxis program / mass treatment of anemia

- (A) Ferrous sulphate
- (B) Ferrous sulphate + Vit B12 and folic acid
- (C) Inj ferrous sulphate
- (D) Inj ferrous fumigate

Ans (B) Ferrous sulphate + Vit B12 and folic acid

This is given as a part of Anaemia Mukht Bharat/ iNIPI.

Under Anaemia Mukht Bharat Program:(slide number 403)

Age group	Dose
Children 0-59 months	Biweekly 1 ml Iron and FA syrup [Each ml iron and FA syrup contains 20 mg iron + 100 mcg FA]
Children 5-9 years	Weekly , 1 Iron and FA tablet. [Each tab contains 45 mg iron + 400 mcg FA , sugar coated , pink color]
School going Adolescent girls and boys , 10-19 years , Out of school adolescent girls	Weekly , 1 Iron and FA tablet. [Each tab contains 60 mg Iron + 500 mcg FA , sugar coated, blue color]
Women of Reproductive age (non-pregnant, non-lactating) 20-49 years	Weekly , 1 Iron and FA tablet. [Each tab contains 60 mg iron + 500 mcg FA , sugar coated, red color]
Pregnant women and lactating mother (0-6 months)	Daily, 1 Iron and FA tablet starting from 4 th month of pregnancy continued upto 180 days post partum. [each tab contains 60 mg iron + 500 mcg FA , sugar coated, red color]



