

Public Health

Archive

Lecture 13

(The Vaccine Cold Chain, Dr. Nedal)

Medical card .

Name _____

Date of b

Gender _____

Address _____

Date of call _____

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1. Regarding storage conditions of vaccines, one of the following statements is **INCORRECT**:

- a. All freeze- dried vaccines become more heat- sensitive after they have been reconstituted.
- b. BCG, measles, MMR and rubella vaccines are sensitive to heat and light.
- c. MIVIR is supplied in dark brown glass vials to protect them against light.
- d. Hepatitis B, DTP, DT and TT vaccines are sensitive to both heat and freezing.
- e. BCC and measles are supplied in dark brown glass vials to protect them against heat damage.

Answer: E

2. Certain vaccine may get damaged during transportation and become ineffective. Shake test is used to check the possible damage/ potency of the following vaccine:

- a. Hepatitis B.
- b. DPT.
- c. Measles.
- d. OPV
- e. MMR

Answer: B

3. All of the following vaccines are damaged by freezing, **EXCEPT**:

- a. TT
- b. DT
- c. OPV
- d. DPT
- e. Hib

Answer: C

4. Regarding controlling and monitoring temperatures, one statement is **INCORRECT**:

- a. Reconstituted vials may be used in many immunization sessions.
- b. Reconstituted vaccines do not contain preservatives and thus become an ideal environment for growing dangerous organisms.
- c. All Cold Chain Monitor card (CCMs) have temperature-sensitive indicators that monitor heat exposure throughout the entire journey of vaccine from manufacturer to health facility.
- d. Vaccine Vial Monitor (VVM) is not substituting for expiry dates.
- e. Freeze watch indicator are CCMs used to monitor storage conditions of cold-sensitive vaccines.

Answer: A

5. The incorrect statement about criteria of the refrigerator to keep vaccines potent is:

- a. 12- 15 cm away from the wall.
- b. Its temperature is recorded twice daily.
- c. Adequate air circulation around it.
- d. It must be placed away from direct sunlight.
- e. Defrosted regularly.

Answer: A

6. All of the following vaccines are damaged by freezing, EXCEPT:

- a. TT
- b. DT
- c. MMR
- d. DPT
- e. HBV

Answer: C

7. The most heat sensitive vaccine that must be kept between -15°C and -25°C is:

- a. DPT
- b. Measles
- c. OPV
- d. MMR
- e. TT

Answer: C

8. The temperature required for proper storage of measles vaccine at the level of local immunization centers is:

- a. -2°C to $+8^{\circ}\text{C}$
- b. Zero to -8°C
- c. $+2^{\circ}\text{C}$ to $+8^{\circ}\text{C}$
- d. -2°C to $+4^{\circ}\text{C}$
- e. -15°C to -25°C

Answer: C

****Mnemonic :**

For heat and light-sensitive vaccines (BCG, measles, MR, MMR, rubella):

“Bright Light Makes My Rubella Sensitive.”

- Bright = BCG
- Light = Light-sensitive
- Makes = Measles
- My = MR/MMR
- Rubella = Rubella

For heat and freeze-sensitive vaccines (Hepatitis B, Hib, DTP, DT, Td, TT):

“Hot Hepatitis Hates Freezing During Tetanus Time.”

- Hot = Heat-sensitive
- Hepatitis = Hepatitis B
- Hates = Hib (liquid)
- Freezing = Freeze-sensitive
- During = DTP
- Tetanus = DT, Td, TT
- Time = Reminder of multiple Tetanus-containing vaccines

Take it easy, just smile 😊🩺