



King Saud University

College of Applied Medical Sciences

Community Health Sciences



CHS 431

Enteral and Parental Nutrition Quiz

Student Name:

Student Number:

Total Mark:

Q1: Choose one answer for each of the following MCQ: (4 marks)

1. All of the following statements concerning enteral formula are false **EXCEPT**:

- a. Disease specific formula is cheaper than standard formula.
- b. Elemental formulas are used for normal digestive capacity patient.
- c. Blenderized formula needs aseptic technique to prevent bacterial contamination.
- d. ProMod as a modular product consider a good source for carbohydrate.

2. Calorie Disease formula :

- a. It's a type of standard formula.
- b. Suitable for fluid restriction disease.
- c. Concentrated to provide more Kcal.
- d. All of the above.

3. All of the following statements concerning **pulmocare** are true **EXCEPT**:

- a. It's an example of disease specific formula.
- b. Can be used for respiratory and diabetic diseases.
- c. High in carbohydrate and low in fat.
- d. Help in reduce excess CO_2 production.

4. Crucial is :

- a. A complete intact formula for fluid restriction patient.
- b. It is an example of modular product.
- c. Used for immune support, wound healing and major surgery.
- d. All of the above.

5. All of the following statements concerning Human Milk Fortifiers are true

EXCEPT:

- a. For preterm infant to support their increase nutrient needs.
- b. It is a fluid that is mixed with human milk.
- c. Iron- containing HMF has 1.4 mg / 4 packets.
- d. It is an isotonic formula.

6. Soy- Based Formula for infant patient:

- a. Indicated for infant with galactosemia or hereditary lactose deficiency.
- b. Not effective for treatment colic.
- c. Hypotonic formula.
- d. All of the above.

7. Similac PM 60/40:

- a. For renal disease, hypocalcaemia & hyperphosphatemia patient.
- b. Hypertonic formula, whey protein concentrate.
- c. High in iron.
- d. All of the above.

8. Neocate infant:

- a. It is peptide based formula.
- b. Used for extreme protein hypersensitivity.
- c. Designed for children from 1- 10 years of age.
- d. All of the above.

Q2: Put (T) for True OR (F) for false statements of the following: (4 marks)

1. Enteral formula can be used as oral supplement and tube feeding. (**T**)
2. Polymeric formula contain hydrolyzed nutrient. (**F**)
3. Free Amino Acid formula is better than peptide based formula in promoting greater nitrogen absorption. (**F**)
4. Thicken up used for individuals with dysphagia. (**T**)
5. Reduced Fat formula is used for chylothorax. (**T**)
6. Children who require enteral nutrition (EN) support are those who are unable to obtain more than 50% of caloric needs by moth. (**F**)
7. Start enteral feeding with full rate (**F**)
8. Harris –Benedict equation is the most accurate method for determining resting energy expenditure (REE) for hospitalized individuals. (**F**)

Q3: Calculate total kcal, protein, carbohydrate and fat in 1000 ml Jevity + 50 gm calogen. (2 marks)

Answer :

Formula	volume	Energy	Protein	FAT	CHO
Jevity	1000ml	1060 kcal	44 gm	35 gm	154gm
calogen	50 gm	225 kcal	0	25	0
Total	1000 ml	1285 kcal	44 gm	60 gm	154 gm

Q4: 84 y/o male known case of DM, admitted to hospital with poor oral intake, he start NGT feed. He is 100 kg and 155 cm

- a. Calculate his nutritional need.
- b. Give the most appropriate feed to him.

(5 marks)

Answer :

Age: 84 y/o HT: 155 cm Wt: 100 Kg male

$BMI = wt / (Ht)^2 = 100 / (1.55)^2 = 41.6 \text{ kg/m}^2$ (morbid obesity)

$IBW = 24 \times (1.55)^2 = 57.6 \text{ kg} = 58 \text{ kg}$

$\% IBW = Awt / IBW = 100 / 58 = 172.4\%$ (obese)

$Adj BW = \{(ABW - IBW) \times 0.25\} + IBW = 68.5 = 69 \text{ kg}$

Nutritional requirement:

- 1- Energy requirement: 20 – 22 kcal/Adj BW/ day
 $= 1380 - 1518 \text{ kcal/day}$
- 2- Protein requirement : .8 - 1 gm/Adj BW/day
 $= 55.2 - 69 \text{ gm/day}$
- 3- Fluid requirement : 25 x 69 = 1725 ml/day

We will give him Glucerna as a formula because he is a diabetic pt.

Glucerna will provide him with:

Formula	volume	Energy	protein	Fat	CHO	K	Na
Glucerna	1500 ml	1500 ml	63 gm (17%)	84 gm (50%)	141 gm (38%)	60 mmol	60 mmol
H ₂ O	225 ml flushing						

$$N_2 \text{ (gm)} = 63/6.25 = 10.08 \text{ gm}$$

$$NPC = 1500 - (63 \times 4) = 1248 \text{ kcal}$$

$$NPC: N = 1248/10.08 = 123.8: 1$$

$$\text{Flow rate: } 1500/24 = 62.5 = 63 \text{ ml/hr}$$

Plan:

- 1- Start the pt on half the volume 750 ml / day, 31 ml / hr and gradually increase it to reach the total volume 63 ml / hr + 40 ml / 4h flushing H₂O as the pt tolerate
- 2- Monitor feeding tolerance.
- 3- Monitor glucose, albumin, TG, cholesterol,
- 4- Check with the speech therapist whenever the pt can start oral feeding, if he starts orally; start with liquid then soft then solid as tolerated.
- 5- F/u : 7/7