

**Question I:**

Salem.S. is an 8 yrs old Saudi male. k/c of ALL , S/p allogenic BMT 3/12 ago. He was diagnosed with ALL @ the age of 6 when he was admitted several times c/o splenomegaly and low-grade fever of unknown etiology. Further investigations were done and examination bone marrow sample showed the presence of leukemic blast cells consistent with ALL.

During the next 2 yrs he underwent intensive cycles of chemo and radiotherapy , and 3/12 ago he had an allogenic BMT. He was doing fine after until 5 days ago when started developing skin rash. he presented to the ER with generalized skin rash, diarrhea, and abdominal cramps. He was admitted for further blood work and gastrointestinal endoscopy , $\Delta$ GVHD.

Upon interview, his mother reported that he has fair appetite and food intake, has lost more than 5 kgs ever since he was diagnosed with ALL, dislikes egg and red meat.

Current Wt = 18.5 kg , Ht= 116, Meds : Cyclosporine and Pridnisone , Diet Rx: DFA.

**Labs:**

WBC	3.0	3.3-8.7 K/uL
Neutrophils	2.6	3-5%
RBC's	3.9 L	3.93-5.69 M/uL
Hgb	11	12.6-16.1 g/dL
Hematocrit	35	35-45%
MCV	70	77-95 $\mu\text{m}^3$
Calcium	9.3	8.8 - 10.3 mg/dL
Chloride	99	95 - 107 mEq/L
Magnesium	1.9	1.6 - 2.4 mEq/L
Phosphate	3.6	2.5 - 4.5 mg/dL
Potassium	3.7	3.5 - 5.2 mEq/L
Sodium	140	135 - 147 mEq/L

Using the above mentioned information please answer to the following questions:

**1. Perform an assessment based on the anthropometric data. (show all calculations) (3.0 Marks)**

Wt/age is ..... , IWt/age = ..... , % IWt/age = .....

Ht/age is ..... , IHt/age = .....

Wt/Ht is ..... , IWt/Ht = .....

BMI = ..... = ..... and its .....

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Acute malnutrition status = ..... (.....)

Chronic malnutrition status = ..... (.....)

**Calculate nutritional requirements (2.5 Marks)**

Energy:.....  
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Protein:.....  
..... (% of kcal)

Fat :..... (% of kcal)

CHO :..... (% of kcal)

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**2. Calculate exchanges for meal planning**

**(1.5 Marks)**

Exchanges	CHO ..... gm	Pro ..... gm	Fat ..... gm
Milk ( )			
Veg. ( )			
Fruits ( )			
	Total =	Total =	Total =
Bread( )			
		Total =	Total =
Meat ( )			
			Total =
Fat ( )			

**3. Discuss your recommended diet therapy**

**(2.0 Marks)**

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**Question II**

N. F. is a 56 yrs old Saudi female , transferred to ward 32 A through ICU, where she was admitted 5 weeks ago with left arm pain radiating to shoulders, chest pain and difficulty of breathing and LLE. She is a known case of HTN for 10 yrs and NIDDM for 14 yrs.  $\Delta$ CHF and respiratory failure.

Ht = 153 , Wt = 95 kg , Diet Rx : low cholesterol 2000 kcal.

Labs :

Random glucose	8 mmol/L
Sodium	140 mmol/L
Chloride	100 mmol/L
Potassium	4.5 mmol/L
Urea	7.5 mmol/L
Creatine	80 $\mu$ mol / L

Upon interview, her watcher reported that he has a fair food intake and appetite .no known allergies or disliked.

**Using the above mentioned information please answer to the following questions:**

- 1. Perform an assessment based on the anthropometric data. (show all calculations) ( 3.0 Marks )**

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- 2. Calculate Energy and nutrient requirements ( 4.0 Marks )**

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**3. In highlight of the given diet Rx, discuss your recommended dietary intervention: ( 4.0 Marks )**

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