

Pancreatitis/Hepatitis Resulting in Alcoholic Cirrhosis

Kelli-Ann Wong
November 27, 2012

Summarize History

- ▶ **RFA:**

- ▶ 46yo M admitted c epigastric pain

- ▶ **PMHx:**

- ▶ Acute pancreatitis with an enlarged fatty liver
- ▶ Epigastric pain d/t pancreatitis

- ▶ **Pt Dx:**

- ▶ Laennec's cirrhosis with pancreatitis



Summarize History

- ▶ **Social Hx:**

- ▶ Auto mechanic
- ▶ Divorced with 2 children in college
- ▶ Emotional drinker
- ▶ Started drinking beer and whiskey in high school



Anthropometrics

- ▶ **Wt: 68.18 kg**
- ▶ **Ht: 180.34cm**
- ▶ **BMI: 21 kg/m² (Normal)**
- ▶ **IBW (Hamwi): 78.18kg**
- ▶ **%IBW: 87%**
- ▶ **%Wt change: 12% (over a period of 1 ½ years)**



Biochemical – Basic

Test	Range	Results (1)	Results (2)	Interpretation
Glu	70-110 (mg/dL)	190 ↑	87	
Ca	8.8-10 (mg/dL)	8.8	8.4 ↓	Malabsorption
Ser alb	3.5-4.8 (g/dL)	2.9 ↓	2.3 ↓	Decreased hepatic synthesis
K	3.5-5.2 (mmol/dL)	3.4 ↓	5.1	
Mg	1.8-2.6 (mg/dL)	1.7 ↓	1.6 ↓	Malabsorption
P	2.7-4.5 (mg/dL)	2.6 ↓	2.3 ↓	Inadequate intake

▶ ↓Ca, K, Mg, & P are common among alcoholics

Biochemical – Liver Function

Test	Range	Results (1)	Results (2)	Interpretation
AST	14-20 (units/L)	183 ↑	240 ↑	Acute pancreatitis
ALT	10-40 (units/L)	132 ↑	200 ↑	Hepatitis, cirrhosis, hepatic necrosis, pancreatitis
ALP	25-100 (units/L)	253 ↑	363 ↑	Cirrhosis, hepatitis
PT	11-13(seconds)	12.2	15.4 ↑	Liver disease
TBIL	0.3-1.0 (mg/dL)	3.2 ↑	4.8 ↑	Cirrhosis, hepatitis
Amylase	25-125 (units/L)	485 ↑	685 ↑	Acute pancreatitis (70-90%), pancreatic duct obstruction



Biochemical – CBC

Test	Range	Results (2)	Interpretation
Hgb	M: 13.5-17.5 (g/dL)	12 ↓	Anemia, malnutrition
Hct	41-53(%)	38 ↓	Anemia, malnutrition/dietary deficiency
MCV	80-100 (fl)	110 ↑	Pernicious anemia, liver disease

▶ CBC test was not administered on first visit.

Clinical

▶ HPI

- ▶ Dx: Acute pancreatitis c enlarged fatty liver

▶ Medication post 1st admission:

- ▶ Pancrease (lipancreatin) x 3d
 - ▶ Increased digestion of fats, carbohydrates, proteins in GI tract
- ▶ Potassium chloride (Slow K) x 3d
 - ▶ Replacement, prevent deficiency, gastric secretion, renal function, carbohydrate metabolism

- ▶ Avoid taking pancreatin with antacids
- ▶ Well balanced diet, ample protein
- ▶ Multi vitamin and mineral supplement
- ▶ **Avoid alcohol**



Clinical

▶ Post 1st admission

- ▶ Experienced DTs (delirium tremens), started drinking again
- ▶ Depression
- ▶ Stomach pains

▶ 2nd admission

- ▶ Dx: Ulcer
- ▶ Diet: Liberal bland diet



Clinical

- ▶ **Post 2nd admission**

- ▶ Continued drinking
- ▶ Recurring epigastric pains

- ▶ **3rd admission**

- ▶ Blood test
- ▶ Dx: Laennec's cirrhosis c pancreatitis



Laennec's cirrhosis with pancreatitis

- ▶ Also called alcoholic cirrhosis
- ▶ Alcohol causes liver inflammation and scarring
- ▶ Caused by long term alcohol use
- ▶ Early disease:
 - ▶ Enlarges, firms, and hardens
- ▶ End stage disease:
 - ▶ Smaller and nodular



Usual Dietary Intake

Time	Food/Beverage
Morning	14oz Coffee 2 tbsp Cream 2 tsp Sugar 1 Danish pastry with fruit or breakfast sandwich
Afternoon	12 oz Coke Hamburger or fast food sandwich Medium French Fries 1 tbsp Ketchup 12 oz Coke throughout the day
Night	12 oz Beer Plate lunch type of meal 2 scoops of rice, mac salad, chicken katsu or teri beef 3-4 12 oz Beer

Total kcal: 3181

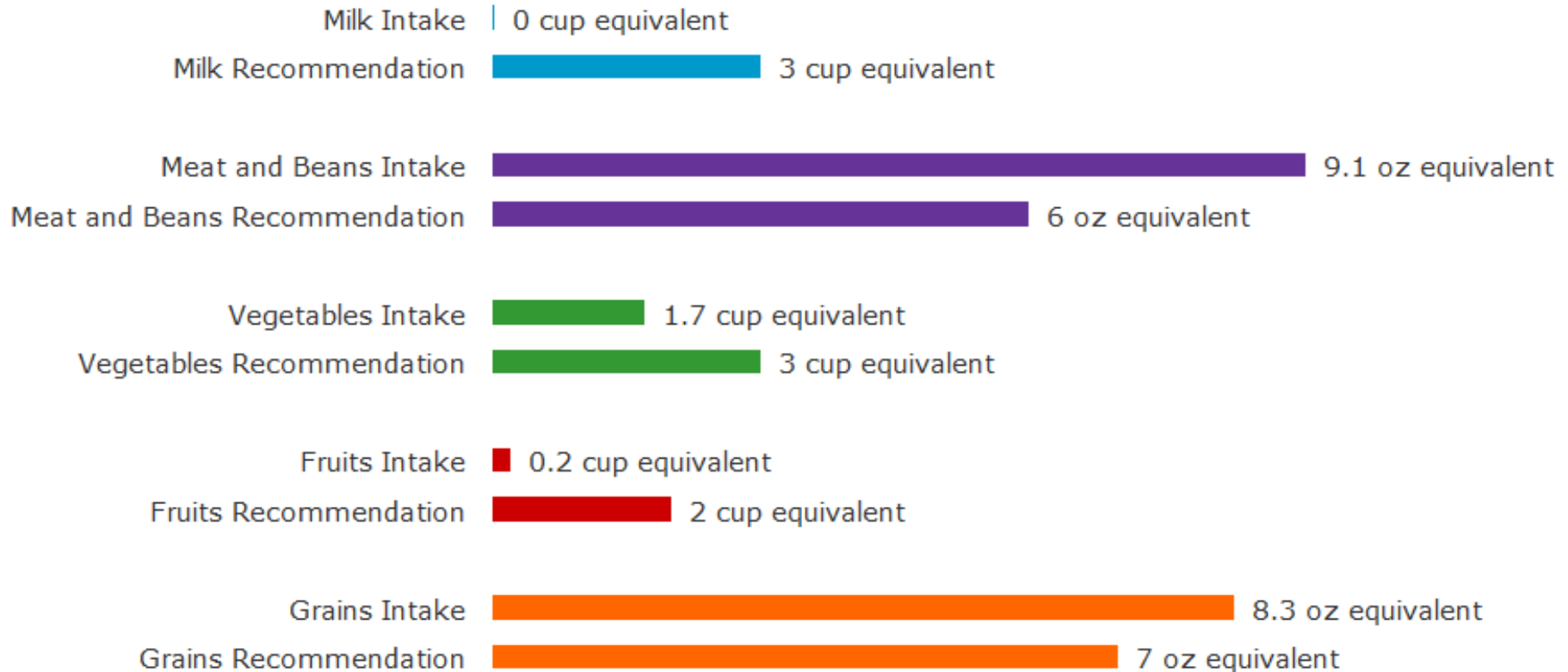
PRO: 85 g

CHO: 360g

FAT: 102.9g



MyPlate: Usual Dietary Intake



24-Hour Recall

Time	Food/Beverage
Morning	14 oz Decaf Coffee 2 tbsp Cream substitute 2 tsp Sugar Biscuit Sandwich with bacon, egg, and cheese
Afternoon	12 oz Coke Hamburger Medium French Fries 12 oz Bottled Water
Night	3 oz Steak ½ c Rice ½ c Canned Corn 6 12 oz Beers

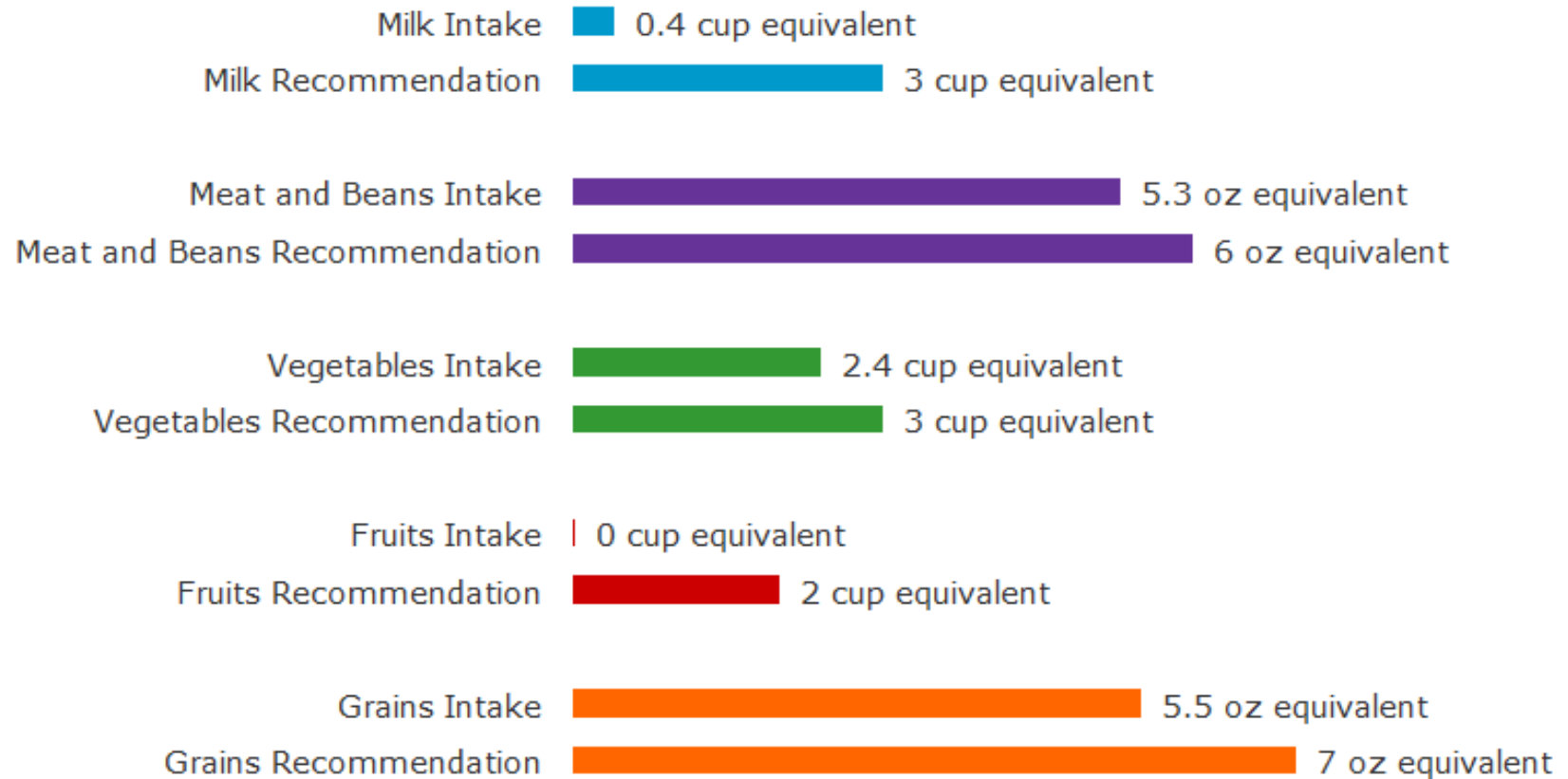
Kcal: 2909

Pro: 82g CHO; 349g

fat: 78.5g



MyPlate: 24-Hour Recall



Energy Requirements

- ▶ **Harris-Benedict Equation**

- ▶ $66.47 + 13.75 (68.18\text{kg}) + 5 (180.34\text{cm}) - 6.77 (46\text{yrs}) =$
1594 kcal/day

- ▶ **Physical Activity & Stress Factor:**

- ▶ $\text{HBE} \times 1.4 (\text{AF}) \times 1.3 (\text{SF}) = 2902 \text{ kcal/d}$

- ▶ **Protein Requirement**

- ▶ Cirrhosis: 1.0-1.2 g/kg
 - ▶ 68-82 g/kg



Fluid Requirement

- ▶ **Body Weight Method**

- ▶ 1110 mL

- ▶ **Energy Method**

- ▶ 2902 mL



Nutrition Diagnosis

- ▶ Excessive alcohol intake r/t harmful beliefs/ attitude toward alcoholic beverages AEB reported intakes of EtOH and liver/pancreatic disease.

Alternative Nutritional Diagnosis

- ▶ Undesirable food choices r/t perception that lack of resources (time and finances) prevent selection of appropriate food choices consistent with recommendations AEB inadequate vitamin/mineral consistency and diet history inconsistent with dietary guidelines.
-



Plan Management

- ▶ **Nutrition Intervention:**
 - ▶ Hold off oral and enteral feeding
 - ▶ Support with IV fluids
 - ▶ Start tube feed if oral nutrition cannot be initiated in 5-7 days
 - ▶ Oral nutrition:
 - ▶ Easily digestible foods
 - ▶ Low fat, high protein
 - ▶ 6 small meals – Liberal bland diet
 - ▶ Increased calories



Plan Management

▶ Communication:

- ▶ Nutrition education
- ▶ Planned diet for his condition
 - ▶ Smaller frequent meals; ↑PRO ↓FAT
- ▶ Avoid alcohol
- ▶ Refer pt to specialist for EtOH and depression

▶ Monitor

- ▶ Follow up in 1 month
- ▶ Monitor LFT
 - ▶ AST,ALT,ALP,PT,TBIL,Amylase



References

- ▶ Leevy C.M., Moroianu S.A.: Nutritional aspects of alcoholic liver disease, *Clin Liver Dis* 9:67, 2005
- ▶ Interventions for Clients with Liver Disorders, Clients with Malnutrition and Obesity.
http://intranet.tdmu.edu.ua/data/kafedra/internal/i_nurse/classes_stud/English/ADN%20Program/Sophomore%20year/Spring%20semester/Nursing%20Care%20of%20Adults%20III/II.Interventions_for_Clients_with_Liver_Disorders.%20Malnutrition.htm
Accessed November 26, 2012
- ▶ Mahan, L. K., Escott-Stump, S., Raymond, J. L., *Krause's Food and the Nutrition Care Process 13th edition*. Elsevier, St. Louis, 2012.
- ▶ The Gastroenterology Group, P.A. http://gastrogroup.org/files/LIBERAL_BLAND_DIET.pdf. Accessed November 25, 2012
- ▶ MedlinePlus. Delirium tremens. <http://www.nlm.nih.gov/medlineplus/ency/article/000766.htm> . Accessed November 25, 2012
- ▶ Banks, P.A., and Freeman, M.L., Practice Guidelines in Acute Pancreatitis. *Am J Gastroenterol* 2006;101:2379-2400

