# Baylor Scott & White Clinical Rotation Descriptions

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### St. Joseph Regional Health Center Clinical Rotation Descriptions

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<td>Reading List</td>
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TEXAS A & M UNIVERSITY DIETETIC INTERNSHIP

ROTATION INFORMATION: Cardiology - Scott and White

CARDIOLOGY: Location: Scott and White Memorial Hospital
Rotation: Inpatient Cardiology
Duration: 40-80 hours

Goal: Increase knowledge and enhance skills in meeting the nutritional needs of cardiac patients in acute and chronic phases of illness, as well as nutrition education for inpatients and outpatients. Promote continued development of basic nutrition care skills and provide the opportunity to participate in a team approach in the acute care and rehabilitation of patients.

I. ROTATION PREPARATION (Complete prior to starting rotation)
   A. Contact the Dietitian one week prior to the first day of the rotation to make necessary arrangements.
   B. If you will miss a day during the rotation, you must give one week’s notice.
   C. Read the attached cardiology articles and complete the workbook.
   D. Prepare a written list of at least 3 goals and objectives for the rotation to discuss with the dietitian on day 1.

II. ROUTINE DUTIES
   A. Participate in daily activities of the cardiology dietitian in providing for nutritional care to patients on 4 North and CTICU.
   B. Gather pertinent chart and lab information to complete nutrition assessments and develop care plans for patients assigned.
   C. Complete calorie counts as appropriate.
   D. Attend all meetings and conferences as assigned.
   E. Diet instructions and consultations as assigned.

III. ROTATION ASSIGNMENTS
   A. Complete Cardiology workbook before first day of rotation.
   B. Attend Cardiac Rehab as available, teach class, develop handout as assigned.
   C. Assignments and projects as assigned including one case study to be presented to the S&W clinical dietetic staff during the rotation.
   D. Review and write one paragraph summary of 2 recent articles (published within last 5 years) pertaining to the nutrition for Cardiology patients.

IV. EVALUATION
   A. Submit completed written assignments to the dietitian as assigned in a timely manner.
   B. Schedule rotation evaluation for the last day of rotation.
TEXAS A&M UNIVERSITY DIETETIC INTERNSHIP

ROTATION INFORMATION: Cardiology — Scott & White

1. Readings: Packet to be picked up prior to rotation

   Nutrition Intervention in the Critically Ill Cardiac Patient (see attached)

   The Heart Speaks I and II: Embracing Integrative Medicine for Heart Health (see attached)

2. Workbook: Due on 1st day of rotation.

3. Project: 1 case study presented to S&W clinical dietitians during rotation

4. Assignments: As assigned

5. Evaluation

**All Assignments will be typed, except the Evaluation.
1. Identify at least six risk factors for coronary heart disease.

2. Define the following lipids (fats) and their roles in the development of heart disease.
   a. Cholesterol
   b. Saturated fats
   c. Monounsaturated fats
   d. Polyunsaturated fats
   e. Triglycerides

3. Define the following cardiac disease states or conditions associated with cardiac disease.
   a. Aortic stenosis (AS)
   b. Arteriosclerosis
   c. Atherosclerosis
   d. Cardiac cachexia
   e. Cardiomyopathy
   f. Cardiorenal syndrome
   g. Congestive Heart Failure (CHF)
   h. Coronary Artery Disease (CAD)
   i. Hypertension (HTN)
   j. Ischemic heart disease
   k. Myocardial infarction (MI)
   l. Pericarditis
   m. Peripheral vascular disease (PVD)
   n. Sick sinus syndrome (SSS)

4. Define the following cardiology terms:
   a. Angina pectoris
   b. Arrhythmia
   c. Atrial fibrillation
   d. Bradycardia
   e. Cardioversion
   f. Tachycardia

5. What are the recommended normal values for
   a. Lipid panel (Cholesterol, Triglycerides, HDL, LDL)
   b. BNP
   c. Troponin (what does this lab correlate with)
   d. Sodium
   e. Hemoglobin A1C
6. Discuss the rationale for each of the following diets as related to the cardiac disease state.
   a. Sodium restricted
   b. Fluid restricted
   c. Low fat
   d. Low cholesterol

7. Discuss the use of the following drugs in the treatment of cardiac disease and their nutrition implications.
   a. Albumin
   b. Cholestyramine
   c. Coumadin
   d. Furosemide
   e. Nicotinic acid
   f. Hydrochlorothiazide

8. Define and discuss the following cardiac procedures:
   a. Aortic Valve Replacement (AVR)
   b. Mitral Valve Replacement (MVR)
   c. Cardiac catheterization
   d. Stent
   e. Coronary Artery Bypass Graft (CABG)
   f. Orthotopic Heart Transplantation (OHT)
   g. Percutaneous Transluminal Coronary Angioplasty (PTCA)

9. Diet:
   a. List common foods that are high in cholesterol and acceptable daily intake of cholesterol
   b. List common foods that are high in saturated fats and acceptable daily intake of saturated fat
   c. List common foods that are high in polyunsaturated fats.
   d. What foods are good sources of monounsaturated fats?
   e. What foods are good sources of omega 3 fatty acids?
   f. What information or suggestions would you give to a patient on a fat-controlled, sodium-controlled diet for meals eaten away from home?
   g. How many mg of Na+ are in 1 tsp. of salt?
   h. Describe the clinical effects of dietary fiber on hyperlipidemia.

12. Explain how the figure % kcals from fat on a nutrition food label. What is the acceptable % for fat?
13. Identify the following abbreviations. (may not directly apply to cardiology)

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Definition</th>
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</thead>
<tbody>
<tr>
<td>POD</td>
<td>POD (Post Operative Day)</td>
</tr>
<tr>
<td>BID</td>
<td>BID (Bi-Daily)</td>
</tr>
<tr>
<td>NPO</td>
<td>NPO (Nothing by Mouth)</td>
</tr>
<tr>
<td>CHF</td>
<td>CHF (Congestive Heart Failure)</td>
</tr>
<tr>
<td>COPD</td>
<td>COPD (Chronic Obstructive Pulmonary Disease)</td>
</tr>
<tr>
<td>s/p</td>
<td>s/p (status post)</td>
</tr>
<tr>
<td>WNL</td>
<td>WNL (Within Normal Limits)</td>
</tr>
<tr>
<td>PMHX</td>
<td>PMHX (Past Medical History)</td>
</tr>
<tr>
<td>IDDM</td>
<td>IDDM (Insulin Dependent Diabetes Mellitus)</td>
</tr>
<tr>
<td>NIDDM</td>
<td>NIDDM (Non-Insulin Dependent Diabetes Mellitus)</td>
</tr>
<tr>
<td>TID</td>
<td>TID (Three Times a Day)</td>
</tr>
<tr>
<td>QID</td>
<td>QID (Every Other Day)</td>
</tr>
<tr>
<td>BKA</td>
<td>BKA (Bone Marrow Aspiration)</td>
</tr>
<tr>
<td>TIA</td>
<td>TIA (Transient Ischemic Attack)</td>
</tr>
<tr>
<td>CVA</td>
<td>CVA (Cerebrovascular Accident)</td>
</tr>
<tr>
<td>GERD</td>
<td>GERD (Gastroesophageal Reflux Disease)</td>
</tr>
<tr>
<td>N&amp;V</td>
<td>N&amp;V (Nausea and Vomiting)</td>
</tr>
<tr>
<td>TPN</td>
<td>TPN (Total Parenteral Nutrition)</td>
</tr>
<tr>
<td>DX</td>
<td>DX (Diagnostic)</td>
</tr>
<tr>
<td>CXR</td>
<td>CXR (Chest X-ray)</td>
</tr>
<tr>
<td>IABP</td>
<td>IABP (Intra-Aortic Balloon Pump)</td>
</tr>
<tr>
<td>PTA</td>
<td>PTA (Percutaneous Transluminal Angioplasty)</td>
</tr>
<tr>
<td>DNR</td>
<td>DNR (Do Not Resuscitate)</td>
</tr>
<tr>
<td>PRN</td>
<td>PRN (As Needed)</td>
</tr>
</tbody>
</table>

Based on the 3 nutrition articles, answer the following questions

1. EN should be initiated on all critically ill patients (ex: high dose pressors). True or False. Explain

2. What dietary strategies have been shown to have value for primary prevention of cardiovascular disease?

3. What are the national and international guidelines for ω-3 fatty acids for the general population (servings)?
TEXAS A&M UNIVERSITY DIETETIC INTERNSHIP

ROTATION INFORMATION: General Medicine - Scott & White

General Medicine/ Neurological disorders  Location: Scott & White Hospital
Duration: 80 hours

Goal: Increase knowledge of and enhance skills in meeting the nutritional care needs of patients with a wide variety of illnesses/conditions. Develop and increase skills in nutritional assessment. Promote continued development of competence in nutrition care delivery. Participate in a team approach to patient care.

II. Rotation Preparation (Complete prior to starting rotation)
   a. Complete General Medicine workbook prior to first day of rotation.
   b. Prepare written list of goals and objectives for rotation to discuss with the dietitian on first day of rotation.
   c. Contact the dietitian prior to the first day of the rotation (at least one week prior) to make necessary arrangements and pick up reading packets, etc.

III. Routine Duties
   a. Keep record of diagnosis seen. Make sure to see at least one patient with the following diagnosis if at all possible: COPD, pancreatitis, hepatitis/cirrhosis, pressure ulcer, malnutrition, Crohn’s/Ulcerative Colitis, ESRD, CKD, Cystic Fibrosis
   b. Set up snack and supplements for patients as needed and record patient preferences in Hospitality Suite.
   c. Attend clinical meetings as assigned by dietitian.
   d. Give diet instructions for the following: Renal, Diabetic, Heart Healthy, and any other assigned by dietitian.

IV. Routine Assignments
   a. Do at least one calorie count during the rotation if applicable.
   b. Attend pertinent lectures and/or presentations as assigned by dietitian.
   c. Present a case study to the dietitians on the last week of rotation.
   d. Perform other duties as assigned by the dietitian.
   e. Complete one written article summary by end of the two week rotation and present to Baylor Scott and White Dietitians.

IV. Evaluation
   a. Schedule a mid-rotation evaluation with the dietitian.
   b. Submit completed written assignments as requested by the dietitian.
   c. Schedule rotation evaluation for the last day of the rotation.
   d. Submit completed evaluation forms and written rotation assignments to the Internship Director no later than one week from the last day of the rotation.

Revised May 2015
1. Medications: Briefly indicate usage for each drug and any nutrition-related side effects.

Reglan
Prednisone
Lomotil
Lasix
Dilantin
Heparin
Coumadin
Metamucil
Dulcolax
Miralax
Colace
Zantac
Zoloft
Zofran
MOM
Phenergan
Lactulose
Synthroid
Zemplar
Ferrous Sulfate
Epogen
Megace
Pancreatic enzymes
Metformin
Insulin
Glyburide
Glipizide
HCTZ
Furosemide
Spironolactone
PhosLo
Calcium Carbonate

2. List names and meaning for the following abbreviations.

<table>
<thead>
<tr>
<th>Abbreviation</th>
<th>Description</th>
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<tbody>
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<td>Alb</td>
<td>PO</td>
</tr>
<tr>
<td>BID</td>
<td>NPO</td>
</tr>
<tr>
<td>TID</td>
<td>PUD</td>
</tr>
<tr>
<td>QID</td>
<td>PVD</td>
</tr>
<tr>
<td>CAD</td>
<td>PRN</td>
</tr>
<tr>
<td>c/o</td>
<td>CVA</td>
</tr>
<tr>
<td>CAD</td>
<td>TIA</td>
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<tr>
<td>Abbreviation</td>
<td>Description</td>
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<td>--------------</td>
<td>-------------</td>
</tr>
<tr>
<td>CABG</td>
<td>TPN/CPN</td>
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<td>NGT</td>
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<td>DM</td>
<td>HTN</td>
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<td>IBS</td>
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<td>IBD</td>
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<td>SBS</td>
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<td>NKFA</td>
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<td>AKA-BKA-</td>
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<td>CRF/CKD</td>
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<td>GFR</td>
<td>PD</td>
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<td>Condition</td>
<td>Intervention</td>
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<td>HgbA1c</td>
<td>CF</td>
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<td>PCM</td>
<td>SNF</td>
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<td>R/O; r/o</td>
<td>SOB</td>
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<td>UTI</td>
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<td>MVA</td>
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<td>sx</td>
<td>MVI</td>
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<td>GSW</td>
<td>CBC</td>
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</table>

3. Briefly define the following conditions/diseases and list the primary nutrition intervention(s) for each:

**Acute Kidney Injury (AKI)**

**Coronary Artery Disease (CAD)**
<table>
<thead>
<tr>
<th>Condition</th>
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<tbody>
<tr>
<td>Congestive Heart Failure (CHF)</td>
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<td>Cirrhosis</td>
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<td>Cholecystitis</td>
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<td>Chronic Renal Failure (CRF)/ Chronic Kidney Disease (CKD)</td>
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<td>Crohn’s Disease</td>
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<tr>
<td>Chronic Obstructive Pulmonary Disease (COPD)-</td>
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<tr>
<td>-----------------------------------------------</td>
</tr>
<tr>
<td>Dysphagia-</td>
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<tr>
<td>Cystic Fibrosis-</td>
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<tr>
<td>Diabetes, Type 1-</td>
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<td>Diabetes, Type 2-</td>
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<td>Disorder</td>
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<tr>
<td>Diarrhea</td>
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<tr>
<td>Dumping Syndrome</td>
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<tr>
<td>Gastrectomy, full or partial</td>
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<tr>
<td>GERD</td>
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<tr>
<td>Hepatic Encephalopathy</td>
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<tr>
<td>Condition</td>
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<td>-------------------------------</td>
</tr>
<tr>
<td>Hepatitis</td>
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<tr>
<td>Hypertension</td>
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<tr>
<td>Hypoglycemia</td>
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<tr>
<td>Irritable Bowel Syndrome</td>
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<td>Pancreatitis</td>
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<tr>
<td>Condition</td>
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<td>---------------------------------</td>
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<td>Peptic Ulcer Disease (PUD)</td>
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<td>Short Bowel Syndrome</td>
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<td>Celiac Disease</td>
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<tr>
<td>Rhabdomyosis</td>
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<tr>
<td>Ulcerative Colitis</td>
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</table>

*Revised May 2015*
What are some reasons for requiring an Ostomy?

Normal Output for a Colostomy is 1000 ml. True or False

Normal Output for a Ileostomy initially is > 1200ml. True or False

What is considered High Ostomy Output?
  a. 1200-2000 ml
  b. 500-1000ml
  c. 200-600 ml

What are some important nutrition related issues when managing an Ostomy (Colostomy/Ileostomy)?
4. What labs might be altered in the following conditions? Indicate direction of impact for all that apply.

<table>
<thead>
<tr>
<th>Conditions</th>
<th>Labs which may be altered</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fluid Overload</td>
<td></td>
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<tr>
<td>Hepatic Dysfunction</td>
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<tr>
<td>Pancreatitis</td>
<td></td>
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<tr>
<td>Refeeding Syndrome</td>
<td></td>
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<tr>
<td>Renal Failure</td>
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</tbody>
</table>

Describe what happens with Refeeding Syndrome:
Neurological Disorders

5. Briefly define the following conditions/diseases and list the primary nutrition intervention(s) for each:

CVA-

TIA-

Guillain-Barre Syndrome-

Myasthenia Gravis-

6. Why is Dysphagia a concern?

7. Name at least 3 signs of Dysphagia.

8. List the 3 stages of swallowing

   1.

   2.

   3.
9. When Thickening drinks, how do you know how much thickener to add?

Research Article (Attached)

What vitamins and minerals have been found to be beneficial for patients recovering from an Ischemic Stroke?

Several studies have shown that patients receiving ~20g/d protein supplement had a better recovery of their Neurocognitive Functions? True or False

Zinc plays an important role in Brain Functioning? True or False
Case Study Nutrition Scenarios:

Mr. Johnson is a 45 year old BM who is 5’11” and weighs 170 pounds. He presented to the ER with acute abdominal pain. His physician has told him that he has acute pancreatitis.

1. What abnormal lab values are indicative of pancreatitis?

2. Calculate Mr. Johnson's caloric needs using Kcal/Kg. How much protein should he receive?

Two years later Mr. Johnson presents with a worsening condition. He has developed ascites and pedal edema. Urinary output is decreasing. He now weighs 150 pounds.

1. Define the following additional diagnoses:
   a. Hepatic encephalopathy
   b. Portal Hypertension
   c. Esophageal Varices
   d. Asterixis

2. What is the mechanism of the following drugs?
   a. Sprinolactone
   b. Furosemide (Lasix)
   c. Lactulose

3. Re-calculate Mr. Johnson's total caloric and protein needs.

4. What other dietary recommendations would you make?

Mrs. Jones is a 68 year old who is 5’4” and weighs 170 lbs. She has been diagnosed with diverticulitis in the sigmoid and descending colon.

1. What is Mrs. Jones IBW, % IBW and Adjusted Body weight?

2. Define diverticulitis and diverticulosis, and the suggested dietary recommendation for each.

3. What are some of the symptoms of diverticulitis?
TEXAS A&M UNIVERSITY DIETETIC INTERNSHIP
ROTATION INFORMATION: BAYLOR SCOTT & WHITE RENAL

RENA L NUTRITION: Location: Baylor Scott & White Hospital
Duration: 75-80 hours

Goals:
- To observe and work with the Renal Dietitian in hospital services
- To be able to work independently while under the supervision of the Renal Dietitian observing all rules and regulations on assigned duties and projects
- To develop a basic knowledge of Renal nutrition by using critical thinking

I. ROTATION PREPARATION: (Complete prior to starting rotation)
   A. Contact the Renal Dietitian one week prior to the first day of the rotation to make necessary arrangements
   B. Answer all of the questions on the Renal worksheet and read the assigned Articles
   C. Prepare a written list of goals and objectives specific to the Renal rotation. Be prepared to discuss with the Dietitian on Day 1
   D. Come willing to learn and work and be flexible with work hours

II. ROUTINE DUTIES:
   A. Participate daily in the activities of the Renal Dietitian
   B. Discuss daily research and homework assignments with the Renal Dietitian
   C. Plan and prioritize daily activities
   D. Cover assigned patients
   E. Complete assignments in a timely manner

III. ROTATION ASSIGNMENTS:
   A. Daily homework and or research assignments
   B. Develop or update patient education material
   C. Provide two research articles on an assigned topic

IV. EVALUATION:
   A. Evaluation will be based upon performance, critical thinking process, and assignments. All assignments are expected to be turned in on time. The intern is expected to discuss with the Renal Dietitian any problems in these areas
   B. A verbal but informal evaluation will be given at the end of the first week. This will be a feedback session
   C. A written formal evaluation will be given the last day of the rotation and the intern is expected to bring the evaluation forms at least the morning the day before
1. List the major functions of the kidney.

2. Discuss the following Nephropathies and their effects on the kidney.
   a. Nephrotic Syndrome
   b. Lupus Nephritis
   c. Diabetic Nephropathy
   d. Nephrolithiasis
   e. Glomerulonephritis

3. Describe the following lab tests and their use in determining Renal function.
   a. Creatinine Clearance
   b. Blood Urea Nitrogen (BUN)
   c. Glomerular Filtration Rate (GFR)
   d. Serum Phosphorus
   e. Serum Potassium
f. Serum Sodium

g. Serum Calcium

h. Serum Magnesium

i. Creatinine

j. Urinalysis

4. List the nutrient requirement for adults for each method of therapy.

a. Pre-dialysis

b. Hemodialysis

c. Peritoneal Dialysis

d. Transplant

e. Acute Renal Failure

5. Why is it usually necessary to limit Potassium, Phosphorus, and Sodium in the diet of the CKD patient?

6. What percentage of the allowed protein should be High Biological Value? Give examples of HBV proteins.
7. What is the easiest and safest way to increase calories in the Renal diet?

8. Why are B-complex, Ascorbic Acid, Folic Acid, Iron, Calcium and Zinc supplemented in the Renal diet?

9. Fluid balance in a Hemodialysis patient is evaluated by their dry weight. Define dry weight and describe symptoms of being above or below dry weight.

10. Explain the rationale for the more liberal Sodium, Potassium, Phosphorus, and Protein amounts needed by the Peritoneal Dialysis patients.

11. Define Dialysate and explain its importance.

12. Indicate drug classifications and possible reasons for use of the following drugs in patients with Renal failure.
   
   a. Erythropoietin (Epogen/Procrit)
   
   b. Calcitriol
   
   c. Calcium Citrate
   
   d. Calcium Carbonate
   
   e. Zemplar
   
   f. Insulin
   
   g. Kayexalate
h. Renvela

i. Nephrocaps

j. Nephrovite (Dialyvite)

k. Hydroclorothiazide

l. Aldactone

m. Lasix

n. Phoslo

o. Flomax

p. Cholecalciferol

q. Calcium Gluconate

13. Define the following:
   
   a. Anuria
   
   b. Oliguria
   
   c. Polyuria
   
   d. Anemia
Questions regarding required Articles:

1. What is the daily recommended energy allowance for patients receiving CRRT and patients with AKI? (Provide Kcal and Protein for both)

2. Why are ARF patients more prone to exacerbated insulin resistance?

3. Patients with ARF present with increased oxidative stress, further amplified by deficiencies in which micronutrients?

4. What are the 3 main causes of death associated with AKI

5. What are the goals for nutrition support with a patient with AKI?
LONG TERM ACUTE: Location: Scott & White Continuing Care Hospital
Duration: 10 days (maybe off on Thursdays)
Rotation: 30 hours week

Goal: Increase knowledge and enhance skills in meeting the nutritional needs of med-surg patients in a long term acute (LTAC) and sub-acute phases of critical illness and specific disease states. Promote continued development of basic nutrition care skills and provide the opportunity to participate in a team approach in the long term acute care setting.

ROTATION PREPARATION (Complete prior to starting rotation)
A. Contact the Dietitian prior to the first day of the rotation to make necessary arrangements. Office 254-215-0869 cell 254-541-1597
B. Read the LTAC reading list and complete the pre-rotation worksheet.
C. Prepare a personal written list of goals and objectives for the rotation to discuss with the Dietitian on day 1.
D. Research Long Term Acute Facility vs. Skilled Nursing Facility – write a summary and review with RD for discussion on day 1

II. ROUTINE DUTIES
A. Participate in daily activities of the LTAC Dietitian in providing for nutritional care to patients at the CCH facility.
B. Gather pertinent chart and lab information to complete nutrition assessments and develop care plans for patients assigned.
C. Check enteral and parenteral patient list daily- reassess patients as needed
D. Attend all meeting and conferences as assigned.
E. Diet instructions and consultations as assigned.
F. Meal rounds as assigned.
G. Interact with the interdisciplinary team as needed or assigned
H. Any other assigned duties as needed

III. ROTATION ASSIGNMENTS
A. Complete LTAC pre-rotation worksheet by day 1 no later than day 2.
B. Complete a full assessment w/out direct supervision on an enteral/ parenteral pt.
C. Assignments and projects as assigned
D. Quizzes as assigned.
E. Review and write a summary of 1 recent article pertaining to the enteral or parenteral nutrition for an abdominal wound patient or nutrition support in general
F. Complete a case study if assigned
G. Daily homework assignments
IV. EVALUATION

A. Submit completed written assignments to the Dietitian as assigned in a timely manner.
B. Schedule rotation evaluation for the last day of rotation.
TEXAS A&M UNIVERSITY DIETETIC INTERNSHIP

Longterm ACUTE CARE READING LIST

1. Is There a Role for Albumin in Nutrition Assessment. Medical Nutrition Matters Vol 30 No 1 Summer 2010


6. Postgastrectomy Nutrition C.Rogers Nutrition In Clinical Practice Vol 26 No2 April 2011

LTAC PRE- ROTATION WORK SHEET QUESTIONS:

1. What products and/or medications are used typically to control diarrhea and/or high output ostomies in a hospital patient?

2. What are causes of Cholestasis Induced by Parenteral Nutrition/CPN or TPN?

3. What are the nutritional recommendations for Ventilated Patients to avoid overfeeding?

4. What are the 3 stages of Acute Renal Failure and the 5 stages of Chronic Kidney Disease?

5. Why is albumin not a single marker for nutritional status and the relationship to inflammation? What other lab values would be used for evaluation of inflammation?

6. What are the 5 functions of albumin in the body?

7. What is difference between an intact protein tube feeding formula vs. an elemental or semi-elemental formula?

8. Short bowel syndrome- definition, symptoms and treatment. When is TPN/CPN recommended for use in this syndrome?

9. Colonic, Enterocutaneous fistula (ECF)- definition and challenges of treating this diagnosis.

10. What is a single difference between Medicare and Medicaid for in hospital payer coverage?

11. Decubitus ulcer wound, how are they staged and/or classified and what are the nutritional recommendations?

12. What is Refeeding Syndrome? What electrolytes are of concern in this syndrome?

13. Know the tube feeding location difference between percutaneous gastrostomy, jejunostomy; post-pyloric feeds.

TEXAS A&M UNIVERSITY DIETETIC INTERNSHIP

ROTATION INFORMATION: Long Term ACUTE CARE — Scott & White Continuing Care Hospital (CCH)

1. Readings: Packet to be picked up prior to rotation
2. Research the difference between an LTAC and a Skilled Nursing Facility 1st day
3. Type your personal Objectives for this rotation, and what you expect to do/learn
4. Worksheet: Due on first or second day of rotation.
5. Project: As assigned
6. Case study If assigned
7. Care plan meeting attendance on Tuesday 1pm
8. Quizzes: As assigned
9. Assignments/homework: As assigned
10. Abstracts: 1 current article, due by last week of rotation.
11. Evaluation

**All Assignments will be typed or hand written legible, except the Evaluation.**

Rotation address: 546 Kegley Road
Temple, Texas 76502
(254)215-0869 or 215-0868

Revised 06/15
TEXAS A&M UNIVERSITY DIETETIC INTERNSHIP

ROTATION INFORMATION: Oncology – BS&W

Baylor Scott & White Oncology:  Location: Baylor Scott & White Hospital
Duration: 75 – 80 hours

I. Goal: Increase knowledge and enhance skills in meeting the nutritional needs of oncology patients who are receiving chemotherapy, radiation treatments, and/or bone marrow transplantation. Promote continued development of basic nutrition assessment and care skills and provide an opportunity to participate in a team approach to patient care.

II. Rotation Preparation:
   a. Contact Dietitian one week prior to the first day of the rotation to make necessary arrangements.
   b. Read the Oncology Reading List
   c. Complete the Oncology Workbook
   d. Prepare written list of goals and objectives for rotation to discuss with the Dietitian on day 1.

III. Routine Duties:
   a. Participate in daily activities of Oncology Dietitian.
   b. Gather pertinent chart and lab information to complete nutritional assessments.
   c. Actively participate with the Oncology Health Care Team.
   d. Attend all meetings/conferences as assigned.
   e. Diet instructions and consultations as assigned.

IV. Rotation Assignments:
   a. Complete Oncology Workbook by day 1.
   b. Review and write summary, critique of article, and reference on 2 recent articles pertaining to nutrition of oncology patients.
   c. Projects as assigned.
   d. Tests as assigned.

V. Evaluation
   a. Submit completed written assignments to the Dietitian as assigned.
   b. Schedule rotation evaluation for the last day of rotation.
   c. Submit completed evaluation forms and written rotation assignments to the Director no later than one week from the last day of rotation.


1. Define the following terms related to Hematology/Oncology:

   Benign
   Carcinoma
   Dysgeusia
   Dyspepsia
   Dysphagia
   Dyspnea
   Esophagitis
   Hematology
   Immunosuppression
   Leukocytosis
   Metastasis
   Mucositis
   Neoplasm
   Odynophagia
   Oncology
   Pancytopenia
   Stomatitis
   Tumor
   Tumor Marker
   Xerostomia

2. Define the following Hematology/Oncology diseases, disorders and syndromes:

   Acute Leukemia
   Aplastic Anemia
   Chronic Leukemia
   Hodgkin’s Lymphoma
   Multiple Myeloma
   Myelodysplastic Syndrome (MDS)
   Non-Hodgkin’s Lymphoma
   Sarcoma
   Sickle Cell Anemia
   Thrombotic Thrombocytopenia Purpura (TTP)
   Tumor Lysis Syndrome (TLS)
3. Define the following treatment terms:

   Adjuvant Therapy
   Consolidation Chemotherapy
   Immunotherapy
   Induction Chemotherapy
   Intrathecal Chemotherapy
   Neoadjuvant Therapy
   Palliative Treatment
   Plasmapheresis
   Salvage Therapy

4. Discuss the following medications, including use and nutritional side effects:

   Ciprofloxacin (Cipro)
   Dexamethasone (Decadron)
   Docusate (Surfak)
   Dronabinol (Marinol)
   Filgastin (Neopogen)
   Levofoxacin (Levaquin)
   Megestrol Acetate (Megace)
   Methotrexate
   Metoclopramide (Reglan)
   Metronidazole (Flagyl)
   Moxifloxacin
   Ondansetron (Zofran)
   Pantoprazole (Protonix)
   Polyethylene Glycol (Miralax)
   Posaconazole (Noxafil)
   Prednisone
   Promethazine (Phenergan)
   Senna (Senokot)

5. Explain differences between “normal cells” and “cancer cells.”
6. Define the following surgical terms. What diet recommendations would you make for each?

Colectomy
Gastrectomy
Whipple

7. Define and list consequences of malnutrition.

8. List and define the three stages of cancer cachexia.

9. How can the following cancer treatments affect a patient nutritionally?
   a. Chemotherapy
   b. Radiation therapy
   c. Surgical therapy
   d. High dose chemotherapy with bone marrow transplantation

10. You are consulted to discuss with a patient ways of maintaining nutrient intake during and between chemotherapy treatments. What suggestions would you make?
11. Define neutropenia (including the causes and symptoms). What precautions (medical and nutritional) should be taken with a patient diagnosed with neutropenia?

12. What diseases are treated with a bone marrow transplant?

13. What is the difference between autologous, allogeneic, and syngeneic BMT transplants?

14. Briefly discuss the four phases of the BMT procedure:
   a. Harvest
   b. Conditioning
   c. Transplantation
   d. Engraftment

15. List potential complications related to the transplantation.

16. Why is a multidisciplinary approach important for in caring for the cancer patient?
TEXAS A&M UNIVERSITY DIETETIC INTERNSHIP
ROTATION INFORMATION: BAYLOR SCOTT AND WHITE
SURGICAL TRAUMA ICU

Nutrition Support: Baylor Scott and White Memorial Hospital
Duration: 40 hours

Goal: Participate in a team approach to recognize, understand and develop medical nutrition therapy for the critically ill adult patient. Promote continued development of basic nutrition care skills and begin to develop advanced nutrition support skills.

I. Rotation Preparation
   A. Contact Dietitian one week prior to the first day of the rotation to make necessary arrangements
   B. If you will plan to miss a day during the rotation, you must give one week’s notice and get approval
   C. Read the attached article and answer the provided questions
   D. Complete the workbook prior to the first day of the rotation
   E. Prepare a written list of at least 3 goals/objectives for the rotation to discuss with the dietitian on day one

II. Expectations
   A. Participate in daily activities of the surgical/trauma ICU dietitian in providing nutritional care to patients in the STICU
   B. Navigate and review patient medical records, interview patient and nursing staff, and collaborate with medical team to implement nutrition intervention
   C. Attend all meetings/conferences/medical rounds as assigned
   D. Diet consultations as assigned

III. Schedule of Daily Duties
   A. Day One: Intern will “shadow” the precepting RD
   B. Day Two: Intern will perform dietitian duties with supervision of RD
   C. Day Three to Five: Intern will independently see patients but will discuss cases with the precepting dietitian before discussing with physician or documenting recommendations
   D. Daily: Precepting dietitian will attest every intern documentation in the medical record

IV. Assignments and Written Materials
   A. Complete workbook prior to start of rotation
   B. Review attached documents and be prepared to discuss with precepting dietitian on day one
   C. Complete one written article summary by end of one week rotation and present to Baylor Scott and White Dietitians

Revised May 2015
V. Evaluation
   A. Submit completed written assignments to dietitian as assigned in timely manner
   B. Provide evaluation to precepting dietitian 2 days prior to final day of rotation
   C. Schedule rotation evaluation for the last day of rotation

VI. Learning Objectives
   A. Demonstrate understanding of ICU medications that impact nutrition status
   B. Identify appropriate enteral formulas for a variety of critically ill patients including traumatic brain injury, post-operative complications, multiple trauma, etc.
   C. Formulate macronutrient content for parenteral nutrition solutions
   D. Calculate minimum volume of parenteral nutrition solutions
STICU Workbook Assignment

Answer the follow questions before the first day of your rotation to be reviewed with the RD.
Define the following terms or give a brief description:

1. Subarachnoid Hemorrhage (SAH)
2. Intracerebral Hemorrhage (ICH)
3. Traumatic Brain Injury (TBI)
4. Subdural Hematoma
5. Aneurysm
6. Degloving
7. Necrotizing Fasciitis
8. Mesenteric Ischemia
9. Bowel Perforation
10. Abdominal Compartment Syndrome

Define the following procedures
1. Whipple
2. Roux-en-y
3. Video-assisted thoracoscopic surgery (VATS)
4. Endoscopic retrograde cholangiopancreatogram (ERCP)
5. Hartmann’s Procedure
6. External Ventricular Drain (EVD)
7. Irrigation and Debridement (I&D)

Revised May 2015
What are the caloric values per gram in each of the following parenteral substrates?

Dextrose _____

Amino Acids _____

Lipids _____

What is the maximum glucose infusion rate recommended for an adult patient with glucose intolerance or uncontrolled diabetes mellitus on TPN?

A. 5 mg/kg/min  
B. 7 mg/kg/min  
C. 2 gm/kg  
D. 500 gm daily

What is the maximum glucose infusion rate recommended for all adult patients on TPN?

A. 5 mg/kg/min  
B. 7 mg/kg/min  
C. 2 gm/kg  
D. 500 gm daily

How many grams of dextrose are in one liter of D10 and what caloric value does it have?

A patient is receiving D5W at 75 ml/hr. How many calories from dextrose are provided in a 24 hour period?

Is insulin compatible in the TPN admixture?

Propofol (Deprivan) has _____ kcal/ml.

If a patient is receiving Propofol at 20 ml/hr, how many calories from propofol are provided in a 24 hour period?

In the ICU, which drug calls for monitoring of triglycerides?

In the ICU patient, what factors may be contributing to elevated blood sugars?

Exogenous pancreatic enzymes may be needed after which surgical procedure?

Revised May 2015
True or False. In Refeeding syndrome potassium and phosphorous migrate intracellularly?

What is normal ostomy output after adaptation for
   Colostomy  _____
   Ileostomy  _____

If TPN is long-term, it is recommended to obtain serum levels of copper, chromium, zinc, selenium, and magnesium
   A. Every 3 months
   B. Every 6 months
   C. Every 9 months

Which trace element is renally excreted and subject to significant losses through fistula and diarrheal fluids?

True or False? Promotility agents (i.e. Reglan and Erythromycin) can be added for a short period of time to increase gastric motility.

Describe Refeeding syndrome.

Which of the following is NOT the correct therapy for a diabetic patient with gastroparesis undergoing transition from parenteral nutrition to enteral tube feeding?
   A. Parenteral metoclopramide (Reglan) during initial transition phase
   B. Jejunostomy or postpyloric feeding route
   C. Intermittent feedings: 400 ml of a high fat, fiber-containing formula, 4 times daily
   D. Continuous pump infusion

If a patient reported an allergy to egg whites, which of the following components of a total nutrient admixture should be omitted from the solution:
   A. Dextrose
   B. Lipid emulsion
   C. Amino acids
   D. Vitamins

Acute pancreatitis is usually associated with which two diseases?
   A. Type 1 diabetes mellitus and alcohol abuse
   B. Alcohol abuse and biliary tract obstruction

Revised May 2015
C. Short bowel syndrome and AIDS
D. Type 2 diabetes mellitus and cardiomyopathy

What percentage of kilocalories should be provided by soy or safflower oil to prevent essential fatty acid deficiency?

What are the recommends from ASPEN for holding tube feeds based on elevated GRV?

True or False? In the ICU, it is recommend to maintain glucose levels between 70-100 ml/dL.

Article Questions
1. The brain is dependent on which two factors for functioning?
   a. Glucose and Protein
   b. Glucose and Thiamine
   c. Oxygen and Glucose
   d. Oxygen and Protein

2. All of the following can reduce the metabolic rate in those with brain injuries EXCEPT?
   a. Sedatives
   b. Barbituates
   c. Analgesics
   d. Paralytics
   e. Hypothermia

3. A Glasgow Coma Scale (GCS) score of less than ____ is deemed severe brain injury with significant risk of mortality and increased risk for elevated ICP?
   a. 8
   b. 15
   c. 3
   d. 10

4. Which of the following is a treatment therapy may be used in traumatic brain injury?
   a. Hyperthermia
   b. Therapeutic Hypotension
   c. Medically induced cerebral vasospasm
   d. Hyponatremia
TEXAS A&M UNIVERSITY DIETETIC INTERNSHIP

ROTATION INFORMATION: Pediatrics

PEDIATRICS Location: Scott & White Memorial Hospital
Duration: 80 hours

GOAL: Increase knowledge of and enhance skills in meeting the nutritional care needs of pediatric and neonatal patients with various diagnoses, in an acute care setting. Promote continued development of basic nutrition care skills and provide opportunity to participate in a team approach in to patient care.

I. ROTATION PREPARATION (Complete prior to starting rotation)
   A. Contact the dietitian prior to the first day of the rotation to make necessary arrangements.
   B. Read the required references from the Pediatrics Reading List & complete the Common Diagnosis & Terminology worksheet prior to the first day of the rotation.
   C. Review the Pediatric Nutrition Assessment Policy and Infant & Pediatric formula handouts. Prepare written list of goals and objectives for rotation to discuss with the dietitian on Day 1 in acute and clinic setting.

II. ROUTINE DUTIES
   A. Participate in the daily activities of the Pediatric dietitian.
   B. Attend daily rounds with the Health Care Team as assigned.
   C. Gain understanding of normal lab values and medical terminology in the pediatric population.
   D. Calculate caloric and protein content of specific enteral and parenteral feedings, as assigned in the inpatient setting.
   E. Gather pertinent chart information, obtain appropriate information from pediatric patients and parents to formulate an assessment and nutritional care plan for documentation in the inpatient setting.
   F. Diet instructions as assigned.
   G. Provide inpatient and parent counseling in the inpatient setting.
   H. Will do community activities when necessary.

III. ROTATION ASSIGNMENTS
   Day 1 – Introduction to pediatric rotation
   Day 2 – Screening charts, assessment parameters
   Day 3 – Estimating caloric, protein, and fluid needs
   Day 4 – Formulas, Infant and Adolescent
   Day 5 – Enteral/Parenteral Nutrition
   Day 6 – Assessing pre-term infants
   Day 7 – Pediatric Case Study
   Day 8 – Formula Recipe Assignment I & II Due
   Day 9 – NICU Nutrition Competency Due
   Day 10 – Evaluation

Revised 2013
IV. EVALUATION

A. Submit completed written assignments and the clinical workbook section to the dietitian as requested.
B. Schedule rotation evaluation for final day of the rotation.
C. Submit completed evaluation forms and written rotation assignments to the Educational Coordinator no later than once a week from the last day of the rotation.

PEDIATRIC READING LIST


1) Infant Formulas Chapter 3 Pages 69-77
2) Preterm Infant Chapter 4 Pages 83-92; 97-104
3) Parenteral Nutrition Chapter 22 Pages 523-537
4) Formula Selection Chapter 23 Pages 547-554 (Enteral Nutrition)
5) Assessment Chapter 24 Pages 562-564
Define the following Common Diagnosis and Terminology:

Bronchopulmonary Dysplasia (BPD):

Cerebral Palsy (CP):

Cleft Lip:

Cleft Palate:

Congenital Diaphragmatic Hernia:

Congenital Heart Disease (CHD):

Cystic fibrosis (CF):

Failure to Thrive (FTT)

Gastroparesis

Gastroschisis

Global Developmental Delay (GDD)

Hydrocephalus

Ileus

Nephrotic Syndrome
Neutropenia

Non-Accidental Trauma (NAT)

Pancreatitis

Perforated Anus

Phenylketonuria (PKU)

Prader-Willi syndrome

Respiratory Distress Syndrome

Spastic/Athetoid/Ataxia Quadriplegia

Spinal muscular atrophy (SMA)

Small for gestational age (SGA)

Short Bowel Syndrome (SBS or Short Gut)

VP Shunt
### Indications and Types of Infant Formula

<table>
<thead>
<tr>
<th>FORMULA</th>
<th>INDICATIONS</th>
<th>UNIQUE PROPERTIES</th>
<th>EXAMPLES**</th>
</tr>
</thead>
<tbody>
<tr>
<td>Milk based</td>
<td>Breast milk substitute for term infants</td>
<td>Breast milk</td>
<td>Enfamil Lipil, Enfamil Premium Infant, Similac Advance, Gerber Good Start Gentle Plus</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Variable whey:casein</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>Contains DHA/ARA</td>
<td></td>
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<tr>
<td>Milk- based</td>
<td>Lactose sensitive (not for galactosemia)</td>
<td>Lactose feed or reduced lactose</td>
<td>Similac Sensitive, Enfamil Gentlease</td>
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<tr>
<td>Soy-based</td>
<td>Breast milk substitute for infants with lactose intolerance or milk protein allergy*</td>
<td>Lactose free, some sucrose</td>
<td>Enfamil Prosobee, Similac Soy Isomil</td>
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<tr>
<td></td>
<td></td>
<td></td>
<td>Good Start Soy Essentials, Similac Expert Care Diarrhea (fiber)</td>
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<tr>
<td>Premature</td>
<td>Breast milk substitute for &lt;37 weeks gestational age</td>
<td>Low Lactose</td>
<td>Similac Special Care Advance, Similac HMF CL</td>
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<tr>
<td></td>
<td></td>
<td>Whey:Casein 60:40</td>
<td>Enfamil Premature Lipil, Enfamil HMF</td>
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<tr>
<td></td>
<td></td>
<td>High Ca/PO4</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td>20 and 24 kcals/oz</td>
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<tr>
<td>Premature Transitional</td>
<td>Discharge formula for preemies</td>
<td>22 kcals/ounce RTF or Powder with DHA/ARA</td>
<td>Similac Expert Care Neosure, Enfamil Enfacare</td>
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<tr>
<td>Older Infant</td>
<td>Transition to whole milk</td>
<td>Varies</td>
<td>Similac Go &amp; Grow / Soy, Gerber Good Start 2/ Soy, Enfagrow Toddler / Soy</td>
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<tr>
<td>Casein Hydrosylate</td>
<td>Milk/soy protein allergy Malabsorption/SBS</td>
<td>Casein hydrosylate</td>
<td>Similac Expert Care Alimentum, Nutramigen Lipil, Pregestimil Lipil</td>
</tr>
<tr>
<td>Amino Acid Based</td>
<td>Food Allergy / EE Malabsorption / SBS</td>
<td>Amino Acids</td>
<td>Elecare Infant, Neocate Infant, PurAmino (Nutramigen AA)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Lactose Free, Sucrose Free</td>
<td></td>
</tr>
<tr>
<td>Fat Modified</td>
<td>Defect in digestion, absorption or transport of fat</td>
<td>Contains increase % of kcals as MCT</td>
<td>Similac Expert Care Alimentum, Pregestimil Lipil, Portagen, Enfaport Lipil</td>
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<tr>
<td>Carbohydrate- modified</td>
<td>Simple sugar intolerance</td>
<td>Requires addition of CHO source</td>
<td>RCF, 3232 A</td>
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<tr>
<td>Amino Acid- modified</td>
<td>Inborn errors of metabolism</td>
<td>Low or devoid of specific amino acids that cannot be metabolized</td>
<td>Multiple products</td>
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<tr>
<td>Electrolyte modified</td>
<td>Low Renal Solute Load</td>
<td>Decreased Na/K/PO4 content</td>
<td>Similac PM 60/40</td>
</tr>
</tbody>
</table>

*Children allergic to milk protein may be allergic to soy protein

**Examples on bold typeface are on formulary at Scott & White
Choosing the right formula for your patient

Infant Formulas

Standard Term Formulas
- Cow’s milk-based: whey and casein
- Higher in protein than BM
- Primary carbohydrate is lactose
- Standard mixing is 20 kcal/oz
  - Similac Advance Early Shield

Lactose-free Formulas
- Cows milk-based - not for cow milk protein sensitivity
- Corn syrup solids are main source of carbohydrates
  - Similac Sensitive

Soy formulas
- Soy protein and Lactose free
- 30-64% of infants with cow’s milk protein sensitivity, will also be sensitive to soy protein
- Higher in vitamins and minerals due to lower bioavailability
- Not recommended for premature infants due to poor growth and reduced bone mineralization
  - Similac Isomil

Premature Infant Formulas
- Higher in protein, calcium, phosphorus and some vitamins
- High in MCT (40-50%)
- Carbohydrate mix of lactose and glucose polymer due to lower lactase activity in preemies and allows for lower osmolality
  - Similac Special Care 20, 24, 30 kcal/oz
  - Similac Special Care 24 kcal High Protein (3.3 g protein/100 kcal)

Human Milk Fortifier
- For institutional use only
- To increase kcal, protein, calcium, phosphorus, calcium, and other vitamins and minerals
  - Initiate with 1 packets/50 mL EBM (22 kcal/oz)
  - Can advance to 2 packets/50 mL EBM (24 kcal/oz)
- Not recommended for discharge
  - EBM can be fortified with formula at discharge or feedings can be alternated with BM and formula
Post Discharge Formulas (for Premature Infants)

- Recommended to continue until 9-12 months corrected age
- Higher amounts of Protein, Calcium, Phosphorus, and Vitamins A and D than term formula
- Standard mixing is 22 kcal/oz
  - Similac Neosure

Specialty Formulas

Prethickened formulas

- To help reduce frequent spit-ups
- Added rice starch but nutrients are not displaced
- Flow freely through standard nipple
- Should not be mixed past 24 kcal
  - Similac Sensitive RS (lactose-free)

Semi-Elemental- hydrolyzed protein

- For protein allergy and malabsorption
- Protein source is casein hydrolysate + amino acids
- 33% MCT
  - Alimentum

100 % Elemental

- For intact protein intolerance, allergies, malabsorption, gut resection
  - Elecare
    - Fructose, galactose, lactose, gluten and soy free
    - 33% MCT
    - 100% free amino acids
  - Neocate Infant DHA & ARA
    - Sucrose, lactose, galactose free
    - 33% MCT
    - 100% free amino acids
Pediatric Formulas (Ages 1-10)

Standard Formulas
- Whey and Caseinate
- Lactose free
- Comes with or without fiber
  - Pediasure, Pediasure 1.5

Elemental
- Pediasure Peptide
  - Peptide Based; Hydrolyzed whey
  - 50% MCT
  - Lactose, Gluten Free
- Neocate Junior
  - 100% Amino Acid Based
  - MCT, Safflower oil
  - Hypoallergenic
- Elecare
  - Free L-amino acids
  - For infants/children who cannot tolerate intact or hydrolyzed protein
  - 33% MCT
  - Free of Lactose, Gluten, Soy, Milk Protein, Fructose, & Galactose

Adult Formulas (≥ 10 years)

Standard Formulas
- Osmolite 1.2
  - High protein, low-residue formula
  - 20% MCT
  - Lactose, Gluten Free, Kosher
  - Usually chosen as “house” formula
- Jevity 1.2
  - High protein
  - Fiber Fortified
  - Lactose, Gluten Free, Kosher
- TwoCal HN (60 kcal)
  - High calorie, high protein
  - For patients requiring low-volume feedings
  - Lactose, Gluten Free
Elemental Formula

- **Vital (30 kcal)**
  - Peptide Based; Hydrolyzed whey
  - MCT:LCT ratio 47.5:52.5
  - Lactose, Gluten Free

- **Vital AF 1.2**
  - Peptide based, Hydrolyzed whey
  - Contains fish oil (EPA & DHA) to help manage inflammation
  - MCT:LCT ratio 45:55
  - Lactose, Gluten Free

- **Vivonex RTF (30 kcal)**
  - 100 % Free Amino Acid Based (28% from BCAA)
  - 10% Calories from fat, 70% Calories from carb, 20% Calories from protein
  - Lactose, Gluten Free
  - Reduce pancreatic stimulation
Pediatric/Neonatal Nutrition Assessment

- **PEDIATRICS (Birth to 18 years old)**
  - Determine weight status using the age and gender specific growth charts available from the National Center for Health Statistics
  - Weight/age, head circumference/age, height/age, weight/length, and body mass index (BMI) are plotted on the growth curves and compared to the 50th percentile age.
  - Anthropometric Indexes Associated with Protein-Energy Malnutrition (PEM):
    - Degree of PEM

<table>
<thead>
<tr>
<th>Type PEM</th>
<th>Anthropometric Index</th>
<th>Normal</th>
<th>Mild</th>
<th>Moderate</th>
<th>Severe</th>
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</thead>
<tbody>
<tr>
<td>Chronic (stunting): Height for age as % standard *</td>
<td>95</td>
<td>90-94</td>
<td>85-89</td>
<td>&lt;85</td>
<td></td>
</tr>
<tr>
<td>Acute (wasting): Weight for age as % standard *</td>
<td>90</td>
<td>75-89</td>
<td>60-74</td>
<td>&lt;60</td>
<td></td>
</tr>
<tr>
<td>Weight for height as % standard *</td>
<td>90</td>
<td>80-89</td>
<td>70-79</td>
<td>&lt;70</td>
<td></td>
</tr>
</tbody>
</table>

- The American Academy of Pediatrics (AAP) considers a child with a body mass index (BMI) plotting greater than the 85th percentile to be at risk for overweight. Those with a BMI that plots greater than the 95th percentile are considered overweight and at risk for obesity.

- **PREMATURE INFANTS**
  - Premature growth charts (Babson/Benda, IHDO, Fenton, or Ehrenkranz) will be utilized to determine time to regain weight and determine average daily weight gain goal.
  - Time to regain birth weight will be evaluated.
  - Average daily weight gain goals on 15-20 g/kg/day once regained birth weight to be documented.
  - Head circumference, length, and size for gestational age will be evaluated.
  - Head circumference: goal of 0.5 to 1.0 cm/week
  - Length 0.8 to 1.1 cm/week
  - Size: Weight, head circumference, length for gestational age: AGA, SGA, LGA
**PEDIATRICS (Birth to 17 years of age)**

Estimated Energy and Protein Requirements for infants and children:

<table>
<thead>
<tr>
<th>Category</th>
<th>Age (years)</th>
<th>REE (kcal/kg/day)</th>
<th>RDA (kcal/kg/day)</th>
<th>Kcal/cm</th>
<th>Protein (grams/kg/day)</th>
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</thead>
<tbody>
<tr>
<td>Infants</td>
<td>Birth-5 months</td>
<td>55</td>
<td>108</td>
<td>-</td>
<td>2.2</td>
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<tr>
<td></td>
<td>5-12 months</td>
<td>55</td>
<td>98</td>
<td>-</td>
<td>1.6</td>
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<tr>
<td>Children</td>
<td>1-3</td>
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<td>1.2</td>
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<td>4-6</td>
<td>45</td>
<td>90</td>
<td>-</td>
<td>1.1</td>
</tr>
<tr>
<td></td>
<td>7-10</td>
<td>40</td>
<td>70</td>
<td>-</td>
<td>1.0</td>
</tr>
<tr>
<td>Males</td>
<td>11-14</td>
<td>30</td>
<td>55</td>
<td>15.9</td>
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<tr>
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<td>19-24</td>
<td>25</td>
<td>40</td>
<td>16.4</td>
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<tr>
<td>Females</td>
<td>11-14</td>
<td>30</td>
<td>47</td>
<td>14</td>
<td>1.0</td>
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<tr>
<td></td>
<td>15-18</td>
<td>25</td>
<td>40</td>
<td>13.5</td>
<td>0.8</td>
</tr>
<tr>
<td></td>
<td>19-24</td>
<td>25</td>
<td>38</td>
<td>13.4</td>
<td>0.8</td>
</tr>
</tbody>
</table>

* From Recommended Dietary Allowances (RDA)

Adjustments for special needs and developmental conditions:

A. Chronic Hospitalized Children:
   - RDA of kcal/kg of IBW; Protein g/kg of actual body weight

B. CHD (Congenital Heart Disease):
   - Stressed: 100-120 kcal/kg of actual body weight
   - Maintenance: 120 kcal/kg of IBW or 150-180 kcal/kg of actual body weight

C. Cerebral Palsy (ages 5-11):
   - Spasticity: Moderate 13.9 kcal/cm ht
   - Severe 11.1 kcal/cm ht
   - Athetoid: 13.9 kcal/cm ht
   - Ataxia: 11.1 kcal/cm ht

D. Down’s Syndrome:
   - Males: 16.1 kcal/cm ht
   - Females: 14.3 kcal/cm ht

E. Cystic Fibrosis:
   - Energy Needs: 120-150% RDA (No more than 200% RDA)
   - Protein Needs: 150-200% RDA (No more than 4 g/kg/day)

F. Obesity:
   - If >120% IBW use kcal/cm to estimate energy needs.

G. Vent Dependent or very little movement (i.e. bed rest):
   - Use REE to determine energy needs

Calculating energy needs for catch-up growth:
\[ \text{Kcal/kg/day} = \frac{\text{IBW in kg (50th\%tile wt/ht)} \times \text{RDA for age}}{\text{Actual weight (kg)}} \]

Estimate protein needs using the same formula.
NEONATES:

Recommended energy and protein needs for growth of the stable Preterm Infant:

Parenteral: 3.0-4.0 gm Protein/kg/day  80-120 Kcal/kg/day  
Enteral: 3.5-4.0 gm Protein/kg/day  120-150 Kcal/kg/day

For the acutely stressed infant realistic maintenance needs are:

Protein: 1-1.4 gm Protein/kg/day  
Energy: 50-60 Kcal/kg/day

3. Determining Fluid Needs

- **PEDIATRICS**
  
  o 1-10 kg  100/ml/kg/day
  o 11-20 kg  1000/ml plus 50ml for each kg above 10kg
  o >20kg  1500/ml plus 20 ml/kg for each kg above 20 kg

- **PREMATURE INFANTS**

  >1000 gm = 150 mL/kg/day
  <1000gm = 100-150 mL/kg/day

*These are estimated minimum fluid needs. Larger or smaller volumes may be necessary depending on the size of the infant and the multiple factors influencing needs. Continuous monitoring is necessary to make appropriate adjustments.
Pediatric Case Studies

Case Study 1:
Aliyah is a 5 month-old diagnosed with RSV. She was born at 24 weeks and was in the NICU for 2 months. She was on TPN during her NICU stay and was transitioned to oral feeds of Neosure 24 kcals/ounce prior to discharge. She was doing well on feeds at home until 2 days ago when her oral intake started to decline. She has also been experiencing non-bilious emesis after each feeds over the last 2 days.

Ht: 52 cm FOC: 33 cm
Wt: 3.25 kg
Home Feeds: Neosure 24 kcal 45 ml q 3 hours

1. Fill in the following:
   Ht/age: Wt/age: IBW: % IBW:
   Wt/Ht: % FOC:

2. Calculate the patient’s needs:
   Calorie:
   Protein:
   Fluids:

3. Are her home feeds appropriate? If no, explain why and how much should the patient be taking?

Case Study 2:
Mason is a 12 year old diagnosed with cystic fibrosis (CF). He is admitted for CF exacerbation and poor weight gain over the last 4 months. He is on home feedings of 4 cans of Pediasure 1.5 nocturnally at 95 ml over 10 hrs with water flushes of 30 ml of water before and after feedings. He eats regular meal during the day but his oral intake has declined over the last week.

Ht: 158 cm
Wt: 34 kg

1. Fill in the following:
   Ht/age: Wt/age: IBW: % IBW:
   Wt/Ht:
2. Calculate the patient’s needs:
   Calorie:

   Protein:

   Fluids:

3. Aside from meeting the patient’s nutritional needs, what must the patient be compliant with in order to prevent malabsorption?

4. Is his home TF regimen/diet appropriate? If no, explain why and what would you recommend for his TF regimen/diet?

   It is appropriate for infants less than 12 months to be on cow’s milk. True or False
   Explain your answer:

**Case Study 3:**
William is a 15 year-old with a past medical history of cerebral palsy, quadriplegia, seizure disorder and dysphagia. He has a gastrostomy button and baclofen pump. He is admitted for sepsis and is on the ventilator. He has a stage III decubitus ulcer on his sacrum and wound care has been consulted. He has been NPO for the last 3 days and the nutrition team has been consulted to start tube feedings.

Wt: 44 kg        Ht: 160 cm

1. Calculate the patient’s needs:

2. Choose the appropriate formula and/or modular and calculate the rate to run the TF continuously.
Case Study 4:
Skylar is 7 year-old with celiac disease with newly diagnosed celiac disease. She was growing appropriating however, has had a 10% weight loss over the last 2 months due to abdominal pain, nausea, vomiting and diarrhea. The nutrition team is consulted to start TPN. Is the form of nutrition support appropriate? Explain your answer. What diet should the patient be on when she is weaned of nutrition support?
Formula Recipe Assignment I

What are the primary differences between preterm formulas and standard infant formulas?

For the following, provide total mL/kg, kcal/kg and grams protein/kg:

1. 24 cal/oz Similac Special Care at 18 mL q 3 h for a 900 g infant.

2. 27 cal/oz Similac Special Care (made with SSC 24 High Protein) at 22 mL q 3 h for a 1200 g baby.

3. 24 cal/oz EBM (preterm) with HMF at 24 mL q 3 h for a 1300 g infant.

4. 22 cal/oz Neosure at 40 mL q 3 h for a 2100 g infant.

5. 22 cal/oz EBM (term) with Neosure at 35 mL q 3 h for a 2210 g baby.

6. TPN @ 6.0 mL/hr with 15% dextrose, 3 g protein/kg/day, 3 grams lipids/kg/day for a 1100 g infant.

7. TPN @ 4.8 mL/hour of 10% dextrose, 3.0 g pro/kg/day, 2 grams lipids/kg/day and EBM 20 cal/oz at 5 mL q 3 for a 1200 g baby.
Formula Recipe Assignment II

Develop infant formula recipes for babies at home.

1. Baby A is going home on Neosure 24 cal/oz formula. Determine how many scoops of formula and how much water will be needed to make a ~ 6 oz bottle.

2. Baby B takes expressed breast milk fortified with Neosure powder to make 26 cal/oz. How many teaspoons of Neosure powder are needed to fortify a 3 oz bottle of EBM to 26 cal/oz?

3. Baby C is preparing to go home on Neocate 22 cal/oz. Mother of child wants to make a large volume of formula to cover several feeds during the day. Develop a recipe to make 21 ½ oz. Formula recipe measurements can be given in household measuring cups or scoops.

Develop infant formula recipes for babies in the hospital. How much powder in grams and sterile water in milliliters? What is the total volume?

1. Baby K takes 32 ml of Alimentum 27 cal/oz q 3 hours.

2. Baby S takes 60 ml of Neosure 24 cal/oz q 4 hours.

NICU Nutrition Competency Quiz

1. At adjusted age 33 3/7 weeks, Baby Girl KL weighed 1.76kg on 10/30. Her previous weight on 10/23 was 1.615 kg. Calculate average daily weight gain and assess appropriateness.
   a. 20.7 gm/day gain – appropriate
   b. 11.8 gm/kg/day gain – appropriate
   c. 11.8 gm/kg/day gain – not appropriate
   d. 14.5 gm/kg/day gain – not appropriate

2. What is the corrected age of Baby AB born at 27 4/7 weeks who is now 64 days old?
   a. 36 5/7 weeks
   b. 36 6/7 weeks
   c. 44 1/7 weeks
   d. 37 weeks

3. Assess the following growth parameters for gestational size. Gestational age 35 weeks, birth weight 1.76kg, length 41cm, head circumference 28cm.
   a. SGA
   b. AGA
   c. LGA
   d. None of the above

4. Baby QZ, with weight 850gm, is now adjusted age 28 6/7 weeks has the following TPN/Lipids ordered: D 12.5%, 2 gm protein/kg/day, 3 gm lipids/kg/day @ 4.78mL/hr x 24 hours. What changes would you make to the TPN/Lipids?
   a. Increase fat to 3gm/kg/day
   b. Increase protein to 3gm/kg/day
   c. Decrease dextrose to 10%
   d. Decrease protein to 2gm/kg/day

5. For a 1.2 kg premature infant, calculate intake and adequacy of calcium and phosphorus from term expressed breastmilk with Similac Human Milk Fortifier 24 cal/oz at 23mL every 3 hours.
   a. Calcium 144mg/kg, Phosphorus 80mg/kg – adequate
   b. Calcium 208mg/kg, Phosphorus 120mg/kg – adequate
   c. Calcium 45mg/kg, Phosphorus 23mg/kg – inadequate
   d. Calcium 102mg/kg, Phosphorus 76mg/kg – inadequate

6. Human Milk Fortifier would typically be indicated for use in which of the following circumstances?
   a. Birth weight <1800gm
   b. Elevated serum phosphorus level
   c. AGA
   d. Term infant taking Similac Advance 22 cal/oz and fortified EBM.

7. Baby Boy JH, who was born at 23 2/7 week old, is now at adjusted age 29 6/7 weeks and 1.12kg, with Ca 9.5, Phos 2.7L, alk phos 997H. Choose the best formula, volume and route.
   a. Prosobee 24 cal/oz at 22mL every 3 hours via OG tube
   b. Similac Special Care 24 cal/oz at 22mL every 3 hours via OG tube
   c. Neosure 24 cal/oz at 22mL every 3 hours via OG tube
   d. Similac Special Care 22 cal/oz at 25mL every 3 hours via OG tube
8. Nipple feeds should be started by 30 weeks.
   a. True
   b. False

9. Which statement is true regarding term Baby Boy AM who is now POD # 12 s/p gastroschisis closure?
   a. Begin feeds with an elemental formula, such as Elecare.
   b. Begin feeds with a whole protein formula, such as Similac Advance.
   c. Begin feeds with a whole protein formula, such as Neosure.
   d. Baby Boy AM will never be able to be fed enterally.

10. Baby Girl Cutie was born at 26 weeks and now has the following labs: Ca 10.1, Phos 1.8, Mg 2.3, Alk Phos 1127, Direct bili 0.1. What do these labs indicate? (use ADA Neonatal Nutrition Pocket Guide pg 17 for normal labs)
    a. Anemia of prematurity
    b. TPN cholestasis
    c. Retinopathy of prematurity
    d. Osteopenia of prematurity

11. How many grams/kg/d average would you expect a 28 week 1250 g infant to gain?
    a. 35-40 gm/kg/day
    b. 5-10 gm/kg/day
    c. 20-30 gm/kg/day
    d. 15-20 gm/kg/day
TEXAS A&M UNIVERSITY DIETETIC INTERNSHIP

ROTATION INFORMATION: Diabetes Clinic, Scott & White

DIABETES: Location: Baylor Scott & White Clinic
Center for Diagnostic Medicine
Duration: Rotation 80 hours

I. ROTATION PREPARATION: (Complete prior to starting rotation)
   a. Contact dietitian prior to the first day of the rotation to make necessary
      arrangements.
   b. Prepare written list of goals and objectives for to discuss with the dietitian on Day
      1.
   c. Review the reading list.

II. ROUTINE DUTIES:
   a. Observe diabetes classes.
   b. Observe individual counseling by diabetes dietitian with clinic patients

III. ROTATION ASSIGNMENTS:
   a. With approval of dietitian, present component(s) of diabetes class.
   b. After observing dietitian and with the dietitian's approval, provide education
      clinic patients including calculating individual meal plan.
   c. Complete questions from workbook and case studies.

IV. EVALUATION:
   a. Submit completed written assignments to the dietitian as requested.
   b. Schedule rotation evaluation for the last day of the rotation.
   c. Submit completed evaluation forms and written rotation assignments to the
      Internship Director no later than one week from the last day of the rotation.
S&W Diabetes Clinic Reading List
Required


1. Discuss the major differences between Type 1 Diabetes and Type 2 Diabetes. Include etiology, pathology, treatment, and diagnosis.

2. Briefly define and be prepared to discuss the following.
   a. Fasting blood sugar (FBS)
   b. Glycosylated hemoglobin (HgA1C)
   c. Self Blood Glucose Monitoring
   d. Postprandial blood sugar (PC)
   e. Urine ketone testing f Microalbumin (random and 24 hour)
   f. Cardiac Risk Profile (CRP)
   g. Diabetic nephropathy
   h. Diabetic neuropathy
   i. Diabetic retinopathy
   j. Gastroparesis
   k. Diabetic amyotrophy
   l. Diabetic ketoacidosis
   m. Syndrome X
   n. Somogyi Effect
   o. Dawn phenomenon
   p. Hypoglycemia
   q. Hypoglycemia unawareness
   r. Hyperglycemic hyperosmolar non-ketotic syndrome
   s. Fructosamine testing
   t. Polyphagia
   u. Polyuria
   v. Nocturia
   w. Ketonuria
   x. Polydipsia
   y. Gangrene and tissue necrosis
   z. Mucormycosis
3. Discuss the following diabetes medications. Include meal planning considerations (timing/content of meals) and any other special considerations.
   a. Glyburide (Micronase, DiaBeta) Glynase
   b. Glipizide (Glucotrol XL, Glucotrol)
   c. Glimepiride (Amaryl)
   d. Acarbose (Precose)
   e. Metformin (Glucophage, Glucophage XR
   f. Repaglinide (Prandi)
   g. Rosiglitazone Maleate (Avandia)
   h. Pioglitazone HCL (Actos)
   i. Nateglinide (Starlix)

4. Discuss the following types of insulin including meal planning considerations. Plot the action of each insulin on a graph.
   a. Rapid acting (Humalog)
   b. Short acting (Regular)
   c. Intermediate acting (NPH, Lente)
   d. Long acting (Ultralente)
   e. Peakless (Insulin Glargine, Lantus)
   f. 70/30
   g. 50/50
   h. 75/25

5. Discuss the advantages of dietary fiber in relation to diabetes, blood sugar, and weight control.

6. What are the symptoms, treatments, and causes of hyperglycemia?

7. What are the symptoms, treatments, and causes of hypoglycemia?

8. Discuss gestational diabetes mellitus (diagnosis, etiology, treatment, and diet recommendations).

9. Discuss different meal planning approached including advantages and disadvantages. (Examples: Exchange system, carbohydrate counting, no concentrated sweets, food guide pyramid, point system etc.)
10. Discuss continuous subcutaneous insulin infusion (CSII). Include which patients would be good candidates and appropriate nutrition guidelines. Discuss other special considerations for insulin pump therapy.
CASE #1

Ms. J is 24 years old. She was diagnosed with Type I DM at age 14. Ms. J takes 2 insulin injections daily, N + Humalog before breakfast and supper. Ms. J is an elementary school teacher.

Lab:  HgAlC – 8.4%
     Microalbumin/Creatinine – 7
     Cholesterol – 175 Trig – 140 HDL Chol – 39 LDL Chol – 110

Parameters:
     Ht 5’ 4”      140#

Blood Pressure: 110/70

Diet History:
Breakfast  2 pcs toast w/margarine, 8 oz. Orange juice 6:30
Lunch     Sandwich w/meat and cheese, mayonnaise, lettuce and tomato, chips, 12:30 fruit, and diet soda
Supper    Frozen Dinner (lowfat variety), salad with dressing, iced tea w/sugar sub, 6:30 fruit. Also eats out 2-3 times per week
Snacks    AM – nothing (if she has a reaction she has a candy bar)  PM – fruit or peanut butter crackers
                  Bedtime – cereal with milk or fruit (she only has a snack if she is hungry)

Ms. J has been sent to you for Medical Nutrition Therapy. She would like to improve her HgA 1 C and is concerned about having hypoglycemic reactions. Develop an appropriate meal pattern for her. What would you discuss with her?
CASE #2

Mr. S is newly diagnosed with diabetes. He is sent to you for Medical Nutrition Therapy. Mr. S hopes to control his diabetes with diet and exercise. Mr. S is mildly hypertensive. Mr. S is presently on no structured exercise program. He works regular hours, 8-5 and is sitting at his desk doing computer work throughout most of the day.

Parameters:

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ht:</td>
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</tr>
<tr>
<td>Wt:</td>
<td>240#</td>
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<tr>
<td>Age:</td>
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</tr>
</tbody>
</table>

Mr. S states that he has had no major weight changes recently but over the last 20 years has gradually gained 20 – 30#.

Labs:
2/10 glu – 146 (fasting)
2/20 glu – 132 (fasting)
Chol: 220       Trig: 243
HDL: 35        LDL: 138

Diet History:
Breakfast: Usually omitted. Black coffee to drink.
Lunch: Fast foods, typically hamburger, french fries, and soda. Mr. S would be Willing to take his lunch to work with him.
Supper: Cooked meal at home includes 4-6 oz. portion of meat, 1-2 buttered veg, potatoes or rice, 1-2 slices of bread, sweetened ice tea.
Snacks: Sodas, 2-3 average per day and candy or chips from the vending machine. Bowl of ice cream before bed.

Mr. S is very motivated to control his diabetes. Develop a plan for him. What would you discuss with him?
CASE #3
Mrs. M is 29 weeks pregnant. She is 35 years old. She is currently unemployed. She has a family history of Type 2 DM.
Parameters:

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<tr>
<th>Height</th>
<th>Weight</th>
<th>PPW</th>
</tr>
</thead>
<tbody>
<tr>
<td>5' 2&quot;</td>
<td>180#</td>
<td>155#</td>
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</table>

Labs:

3 hr OGGT

<table>
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<tr>
<th>Time</th>
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<th>1 hr</th>
<th>2 hr</th>
<th>3 hr</th>
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<tbody>
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<td>175</td>
<td>155</td>
</tr>
</tbody>
</table>

Mrs. M is being sent to you for assistance with an appropriate diabetic diet.

Diet History:

Breakfast 8:00
Bacon, egg, toast, and a large glass of OJ

Lunch 12:00
Sandwich with bologna and mayonnaise, chips, fruit, and soda

Supper 6:30
Fast food such as hamburgers and fries, pizza, or fried chicken, Mrs. M usually drinks either soda or sweetened tea.

Snacks
Cookies or fruit if eaten

Mrs. M is unable to drink milk. She is currently taking prenatal vitamins plus extra iron.

Develop a meal plan for Mrs. M. What would you discuss with her?
CASE #4

Mr. S is 33 years old. He has a 31 year history of Type 1 Diabetes. He has been on multiple injections and is now considering an insulin pump.

Parameters:
- Ht 6' 1"
- Wt 215#

Labs: HgBA1C – 7.1%
- Microalbumin/creatinine ratio: 3
- Chol: 213  Trig: 66  HDL: 58  LDL: 142

Diet History:
- Breakfast: Nutrigrain bar, black coffee (breakfast is omitted some days).
- Lunch: Usually eaten out (Ex. BBQ meat, beans, potato salad, and bread. Iced tea with sweet – n- low).
- Supper: Usually eaten at home. 3-4 oz. portion of meat, 2 or more vegetables, 2 dinner rolls.
- Snack: Fat free pudding and 2% milk

Patient's wife was present and felt the description of typical meals was accurate, but there was also inclusion of more "junk foods" (i.e. chips, fast food meals, candy, and other sweets) on occasion.

What would you discuss with him?
TEXAS A&M UNIVERSITY DIETETIC INTERNSHIP
ROTATION INFORMATION: SCOTT & WHITE RENAL

RENAL NUTRITION: Location: Scott & White Dialysis Center, Hospital and Clinic
Duration: 75-80 hours

Goal: To observe and work with the Renal Dietitians in dialysis, hospital and clinic services.
To be able to work independently as possible while under the supervision of the Renal Dietitian observing all rules and regulations on assigned duties and projects.
To develop a basic knowledge of Renal Nutrition by using critical thinking.

I. ROTATION PREPARATION: (Complete prior to starting rotation)
   A. Contact the Renal dietitian prior to the first day of the rotation to make necessary arrangements.
   B. Pick up the Renal Rotation Readings' Binder at the dialysis center- read articles assigned.
   C. Answer all the questions on the Renal Worksheet- typed, day 1
   D. Prepare a written list of goals and objectives specific to the Renal Rotation. Be prepared to discuss with the dietitian on Day 1.
   E. Come willing to learn and work and be flexible with work hours

II. ROUTINE DUTIES:
   A. Participate daily in the activities of the Renal Dietitian (work hours not always standard)
   B. Discuss daily research and homework assignments with the Renal dietitian
   C. Plan to prioritize daily activities
   D. Staff hospital service on second week of the rotation
   E. Cover assigned patients
   F. Complete assignments in a timely manner
   G. Explain and discuss all written assignments

III. ROTATION ASSIGNMENTS:
   A. Daily homework and or research assignments
   B. Case study due and presented on the last day of the rotation
   C. Complete a comprehensive exam in two parts
   D. Donate 2 articles to the Renal Reading’s Binder
   E. Develop or update patient education material
   F. Prepare a renal recipe for patient taste testing or develop a recipe

IV. EVALUATION:
   A. Evaluation will be based upon performance, critical thinking process, comprehensive exam and assignments. All assignments are expected to be turned in on time. The intern is expected to discuss with the Renal Dietitian any problems in these areas.
   B. A verbal but informal evaluation will be given at the end of the first week. This will be a feedback session.
   C. A written formal evaluation will be given the last day of the rotation and the intern is expected to bring the evaluation forms at least the morning the day before.

Revised September 2011
1. List the major functions of the kidney.

2. Discuss the following Nephropathies and their effects on the kidney. Include nutritional requirements and recommendations.
   a. Nephrotic Syndrome  
   b. Lupus Nephritis  
   c. Diabetic Nephropathy  
   d. Nephrolithiasis  
   e. General Focal Sclerosis  
   f. Goodpastures Syndrome  
   g. IgG&IgA Nephropathy  
   h. Glomerulonephritis  
   i. Polycystic Kidney Disease  
   j. Cholesterol Emboli Syndrome

3. Describe the following test and their use in determining renal function.
   a. Creatinine clearance  
   b. BUN  
   c. Glomerular filtration rate  
   d. Albumin  
   e. serum potassium  
   f. serum sodium  
   g. Creatinine  
   h. Urinalysis

4. What is GFR of patients requiring chronic hemodialysis?

5. List nutritional goals for patients in renal failure.

6. List the nutrient requirement for adults for each method of therapy.
   a. Pre-dialysis  
   b. Hemodialysis  
   c. CAPD (continuous ambulatory peritoneal dialysis)  
   d. Transplant  
   e. Acute Renal Failure

7. Why is it usually necessary to limit potassium and sodium in the diet of the CRD patient?

8. What percentage of the allowed protein should be HBV? Give examples of HBV proteins.

9. What is the easiest and safest way to increase calories in the renal diet?

10. Why are B-complex, ascorbic acid, folic acid, iron, calcium and zinc supplemented in the renal diet?

11. Calculate a diet for the assigned problems:
   a. 115g Protein, 2g Na+, 3g K+, 2000ADA  
   b. 60g Protein, 3g Na+, 3g K+, 2000ADA
12. Fluid balance in a hemodialysis patient is evaluated by his dry weight. Define dry weight and describe symptoms of being above or below dry weight. List some complications seen as long term results of fluid abuse.

13. Explain the rationale for the more liberal sodium, potassium and protein amounts needed by the CAPD patients.

14. Name a medication frequently used on dialysis patients to prevent clotting on hemodialysis and clogging of catheter on peritoneal dialysis. List the differences between Nephrocaps and Nephrovite.

15. Indicate drug classifications and possible reasons for use of the following drugs in patients with renal failure.

- a. Erythropoietin (Epogen)
- b. Basaljel
- c. Calcium citrate
- d. Calcium carbonate
- e. Calcium acetate
- f. Nephrocaps
- g. Nephrovite
- h. Kayexalate
- i. Minoxidil
- j. Rocaltrol
- k. Sorbitol
- l. Synthroid
- m. Bicitra
- n. Captopril
- o. Calcij ex
- p. Allopurinol
- q. Mannitol
- r. Lasix
- s. Metolazone
- t. ACE Inhibitors

16. Define the following:

- a. Anuria
- b. Oliguria
- c. Polyuria
- d. Anemia
- e. Azotemia
- f. GFR
- g. Hemodialysis
- h. Peritoneal dialysis
- i. Osteodystrophy
- j. Uremia
- k. Secondary hyperparathyroidism
TEXAS A&M UNIVERSITY DIETETIC INTERNSHIP ROTATION INFORMATION: VA
General Medicine/Cardiac

Location: Central Texas Veterans Health Care System
Rotation: Variable - 80 to 120 hours

Goal: 1. Increase knowledge of and enhance skills in meeting the nutritional care needs of patients with a wide variety of illnesses and conditions. Develop and increase skills in nutritional assessment. Promote continued development of competence in nutrition care delivery. Gain experience with a variety of feeding modalities, including tube feeding. Participate in a team approach to patient care.

2. Gain skills in assessing nutrition education needs for inpatients and in planning and providing education to meet those identified needs. Enhance listening, interviewing, and communication skills. Develop ability to translate communication principles and technical nutrition information into patient counseling and teaching.

I. ROTATION PREPARATION: (Complete prior to starting rotation)
   A. Contact preceptor minimum of 1 week prior to the first day of the rotation to make necessary arrangements.
   B. Read the articles on the reading list.
   C. Complete Section A of Clinical Workbook prior to 1st day of rotation. Be prepared to discuss your answers with preceptor. Handwritten, no copying & pasting.

II. ROUTINE DUTIES:
   A. Arrive on time daily.
   B. Check email messages.
   C. Check for doctors’ consults, screening referrals and follow-ups.
   D. Print out ward roster and screening forms for consults/referrals/follow-ups.
   E. Review patients for appropriateness of diet order (adjust diet orders and tray tickets as needed), adequate of PO intake, and potential changes in nutrition status.
   F. Keep ward roster updated with nutritional statuses and follow-up dates.
   G. Attend Interdisciplinary Team Meetings on ward to discuss patients.
   H. Meal rounds.
   I. Give diet instruction as needed.
   J. Look up any unfamiliar medications and their important nutritional side effects and abbreviations.
   K. Notes on your patients should be written out for review and approved or revised before they are entered in the medical record. Have all assigned notes completed and ready for review at least 60 minutes prior to end of work day.

Revised May 2014
III. ROTATION ASSIGNMENTS:
   A. Complete remainder of General Medicine workbook and turn in at least 3
days prior to the end of the rotation. Handwritten, no copying & pasting.
   B. You will then be expected to provide 1:1 diet education under supervision of
preceptor (will be given opportunity to observe diet educations before being
expected to educate on your own).
   C. If the opportunity arises, follow at least one patient receiving a tube feeding.
   D. Case Studies and other projects as assigned.
   E. Attend pertinent lectures and presentations.
   F. Review education materials available at the VA.

IV. EVALUATION
   A. Submit complete written assignments to the dietitian as requested.
   B. Submit completed evaluation forms and written rotation assignments to the
Director no later than 3 days prior to the last day of the rotation.
   C. Incomplete or late assignments will usually result in failing the rotation.
TEXAS A&M UNIVERSITY DIETETIC INTERNSHIP
CLINICAL WORKBOOK — GENERAL MEDICINE

READING LIST – TO BE READ PRIOR TO ROTATION


HELPFUL REFERENCES:


Fluid & Electrolytes Made Incredibly Easy! Lippincott Williams & Wilkins, 2011.
TEXAS A&M UNIVERSITY DIETETIC INTERNSHIP
CLINICAL WORKBOOK — GENERAL MEDICINE

SECTION A – COMPLETE PRIOR TO ROTATION

1. What is SGA? How is this tool used in patient care?

2. What does SOAP stand for? What type of information is included in each section?

3. What is the Nutrition Care Process (NCP)? What are the four steps of the NCP process?

5. List the four possible nutritional statuses assigned to patients at the VA. What is the required documentation and frequency of documentation associated with each category.

6. What role does albumin play in the body? What is the half life and normal serum levels? In which instances would albumin NOT a good indicator of nutritional status?

7. What is prealbumin? What is the half life and normal serum levels? Why is prealbumin considered a stronger nutritional indicator than albumin?

8. What is Coumadin/Warfarin used for? Which food products can affect the efficacy of this drug? What are examples of these foods?

9. Where is potassium stored in the body? What are the possible causes of hypokalemia?

10. How do you calculate corrected calcium?

11. How do you calculate ideal body weight (IBW) using the Hamwi method for males and females?
1. Define the following terminology:

a. Diverticulosis & Diverticulitis
b. Hepatitis C
c. Cirrhosis
d. Ascites
e. Hepatic Encephalopathy
f. Acute Kidney Injury
g. Dysphagia
h. Ileostomy
i. Colostomy
j. Pneumonia
k. Delirium Tremens
l. Pleural Effusion
m. COPD
n. Congestive Heart Failure
o. Myocardial Infarction
p. Cardiovascular Accident
q. Transient Ischemic Attack
r. Atrial Fibrillation
s. Unstable Angina
t. Cardiac Catheterization
2. Determine the function, brand name and food/drug interactions (if any) of the following drugs commonly prescribed at the VA:

   a. Ondansetron:
   
   b. Omeprazole:
   
   c. Pantoprazole:
   
   d. Acetaminophen:
   
   e. Furosemide:
   
   f. Metoprolol:
   
   g. Lisinopril:
   
   h. Warfarin/Coumadin:
   
   j. Heparin:
   
   k. Spironolactone:
   
   l. Prednisone:
   
   m. Hydrochlorothiazide:
   
   n. Ranitidine:
   
   o. Docusate:
   
   p. Allopurinol:
   
   q. Rosuvastatin:
   
   r. Sennosides:
3. List the words for these common abbreviations seen in the medical record.

   a. INR
   b. HTN
   c. GERD
   d. CVA
   e. TIA
   f. BRBPR
   g. CXR
   h. IV
   i. EKG
   j. SSI
   k. SOB
   l. NKDA/NKFA
   m. CABG
   n. DNR/DNI
   o. WBC
   p. EGD
   q. DKA
   r. MBS
   s. PICC
4. What are normal values for the following lab tests? What might be indicated if the value is NOT within normal limits (high/low)?
   
   a. BUN
   b. Creatinine
   c. eGFR
   d. INR
   e. WBC
   f. Sodium
   g. C-reactive protein

5. Discuss the major differences between Type 1 and Type 2 Diabetes. Briefly summarize etiology, pathology, and treatment.

6. According to the American Diabetic Association, what are considered normal lab values for the following lab tests in a non-pregnant adult with diabetes:
   
   a. HbA1c:
   b. Preprandial plasma glucose:
   c. Peak postprandial plasma glucose

7. For the following oral hypoglycemic agents, discuss their mode of action, as well as recommended timing for medication use.
   
   a. Metformin:
   b. Glipizide:
   c. Actos:
   d. Acarbose:
8. For the following insulin types, discuss how it is administered. What is the onset, peak and duration of each? Which are considered bolus, basal, and premixed insulin?

   a. Aspart (Novolog):
   b. Regular (Humulin R/Novolin R):
   c. Detemir (Levemir):
   d. NPH (Humulin N/Novolin N):
   e. Glargine (Lantus):
   f. 70/30:
   g. SSI

9. Briefly discuss the advantages of dietary fiber in relation to diabetic control.

10. What is the rule of 15 in relation to diabetes?

11. Briefly discuss the following conditions including nutritional requirements and recommendations:

   a. Acute renal failure:
   b. Chronic renal failure without dialysis:
   c. Chronic renal failure with hemodialysis:
   d. Nephrotic syndrome:
12. Define each of the following and their appropriate use. Which are most commonly utilized for jejunostomy tube feedings?

   a. Bolus feeding
   b. Intermittent feeding
   c. Continuous feeding
   d. Gravity drip feeding
   e. Trophic feeding

13. What are the uses and benefits of the following enteral formulas? What is the kcal/mL for each?

   a. TwoCal HN:
   b. Nepro:
   c. Suplena:
   d. Glucerna:
   e. Jevity:
   f. Promote with Fiber:
   g. Vital AF:
   h. Osmotlite:

14. According to the Dietary Guidelines for Americans 2010, what is the recommended AI and UL for sodium intake? How does this differ from the 2005 recommendation? Which foods are commonly high in sodium?
15. Briefly explain what diuretics are and how they are utilized in the treatment of heart failure.
   
   a. Explain the difference between potassium-sparing diuretics, loop diuretics, and thiazide diuretics; provide examples of each.

   b. Why must we monitor BUN and creatinine levels when providing this medication?

16. How do the following drug classes function in the body post-digestion?

   a. ACE inhibitors

   b. Beta-blockers

17. What are possible causes of the following electrolyte imbalances? What can result if these imbalances are not corrected?

   a. Hypercalcemia

   b. Hypocalcemia

   c. Hypomagnesemia

   d. Hyperkalemia

   e. Hypokalemia

   f. Hyponatremia

   g. Hypernatremia
Texas A&M University Dietetic Internship
Rotation Information:
Gerontology, Wound Care, Rehabilitation and Hospice/Palliative Care

Location: Central Texas Veterans Health Care System
Temple Dietitian's office: Bldg. 221, Pod A, 2nd floor, Rm. 2A119

Goal: Increase knowledge and enhance skills in nutritional assessment of various resident population in Community Living Center (CLC) setting. Promote continued development of basic nutrition care skills and provide the opportunity to participate in a team approach to resident care. Emphasis is placed on assessment of nutritional status in the resident and understanding the physiological effects and appropriate nutrition intervention/s.

I. Rotation Information (Please read prior to rotation.)

A. Contact the dietitian prior to the first day of the rotation to make necessary arrangements. (phone number contacts: 743-0932 or 743-1476)
B. Review the CLC information included on the "Nutrition Screen, Assessment, Care and Reassessment Policy." (In your VA Orientation packet.)
C. Prepare written list of personal goals and objectives for rotation to discuss with the dietitian on Day 1.
D. See attached reading list (Attachment A) to prepare for the rotation. Prior to rotation, write a brief synopsis of the articles (what you learned, anything of particular interest to you, etc.). Bring the synopsis with you on your first day of rotation.
E. Complete the medication interaction worksheet prior to completion of rotation (see Attachment B). Bring completed list on first day of rotation.
F. Complete at least one special project by last day of rotation.

II. Routine Duties

A. Print inpatient rosters daily.
B. Complete work-up on new residents—chart review, interview and complete Extended Care Nutrition Assessment.
C. Complete Extended Care Reassessment
D. Complete Extended Care Monthly Notes.
E. For all initial assessments, reassessments and monthly notes: appropriately document including the Nutrition Care Process. For initial assessments and reassessments, add a nutrition component to the resident’s Care Plan in the “I care” plan format and complete the nutrition section (Section K) of the Minimum Data Set (MDS) form.
F. Notify Doctors, Nurse Practitioners or Physician's Assistants of recommendations via e-mail or in person.
E. Meal rounds at noon—dining room and Veteran rooms.
   Make computerized diet changes as needed.
F. Appropriate follow through on all recognized problems.
G. Attend Interdisciplinary Treatment Team meeting on Tuesdays and Thursdays. Provide nutrition information on Veterans that are scheduled for discussion.
H. Attend Resident Council meeting as rotation schedule allows
I. Other duties as needed/assigned.

III. Rotation Opportunities

A. Observe the following activities/procedures as time allows & as desired:
   1. Glucometer training
   2. Kinesiotherapy, Physical Therapy, and/or Occupational Therapy
   3. Resident monthly weights—bed scale, sling scale, wheelchair scale
   4. Resident group or Recreation activity
   5. Modified Barium Swallow, EGD, Colonoscopy

B. Develop confidence/competence in the following areas:
   1. Effect of aging, surgery, infection, and wounds on nutritional status.
   2. Identify common diseases and nutritional deficiencies of the elderly.
   3. Observe factors determining food intake.
   4. Communicate effectively with the residents and/or members of their family and with the health care team.
   5. Understand educational needs and identify readiness for change and effective education techniques.
   6. Assessment of special needs to promote optimal intake (i.e., built-up utensils, texture modification, divided plate).
   7. Effect of diet on therapeutic efficacy and adverse nutritional effect of medications.
   8. Basic clinical skills in CLC unit.
   9. Confer with team and physician on referrals to other services.

IV. Rotation Special Project Suggestions
(Choose one of the following or develop your own idea. Discuss with dietitian.)

A. Small group 20-30 minute class presentation: Diabetes, Lipid, Weight Control, High Fiber, Importance of Adequate Hydration, Low Sodium, Normal Nutrition (recipes, label reading, etc.). Develop nutrition education material as appropriate. Document education in residents' charts appropriately.
B. Case study: diagnosis of interest (needs nutritional involvement). Present to VA dietitians and dietetic interns.
C. Educational bulletin board.
D. Staff in-service based on needs assessment.

Revised May 2014
V. Evaluation

A. Participate in ongoing communication/feedback with the dietitian throughout the rotation (at least weekly).
B. Submit completed assignments to the dietitian prior to rotation and special project prior to last day of rotation.
C. Schedule rotation evaluation for the last day of the rotation.
Texas A&M University Dietetic Internship
Rotation Information:
Gerontology, Wound Care, Rehabilitation, and Hospice/Palliative Care

Required Reading List

Please write a brief synopsis (what you learned/found of interest, words whose definition you had not known, etc.).

*Individualized Nutrition Approaches for Older Adults in Health Care Communities (October 2010) – Position Paper of the AND; access at www.eatright.org

*Ethical and Legal Issues in Nutrition, Hydration and Feeding (June 2013) – Position Paper of the AND; access at www.eatright.org

*Oral Health and Nutrition (May 2013) – Position Paper of AND; access at www.eatright.org

*Health Implications of Dietary Fiber (October 2008) – Position Paper of AND; access at www.eatright.org

*Partnership for Health in Aging Position Statement; access through AND, www.eatright.org (http://www.eatright.org/About/Content.aspx?id=6442460576)


*Unintended Weight Loss in Older Adults, Evidenced-Based Nutrition Practice Guidelines; access at www.andevidencedlibrary.com

*Heart Failure Evidenced-Based Nutrition Practice Guidelines; access at www.andevidencedlibrary.com

*Nutrition Management in the Rehabilitation Setting, access at http://emedicine.medscape.com/article/318180-overview

Revised May 2014
Workbook

Choose two of the following topics. Please do a literature search for a current article, using a peer reviewed journal and write a synopsis.

Nutrition and Wound Healing
Dysphagia
Nutrition Build-up
Anemia
Restorative Dining
Constipation Management
Adaptive Feeding Devices
**Commonly used Medications** – Describe what the medication is used for and any potential food/drug interactions:

Lasix or Furosemide:

Hydrochlorothiazide:

Potassium Chloride:

Lisinopril:

Omeprazole:

Docusate:

Polyethylene Glycol:

Sorbitol:

Bisacodyl:

Lactulose:

Megestrol or Megace:

*Revised May 2014*
Dronabinol:

Statins:

Niacin:

Warfarin:

Novolog Insulin:

Regular Insulin:

Lantus Insulin:

Detemir Insulin:

70/30 Insulin:

Glyburide:

Vicodin:

Revised May 2014
Morphine Sulfate:

Doxycycline:

Levofloxacin:

Moxifloxacin:

Ciprofloxacin
Texas A&M University Dietetic Internship
Rotation Information:
Oncology — VA

Location: Central Texas Veterans Health Care System
Temple Dietitian's office: BRB 4G37 254
743-0542 or 254-778-4811 Ext. 40542

Duration: Introductory Clinical - 80-120 hours

Goal: Increase knowledge and enhance skills in meeting the nutritional care needs of patients with oncologic diagnoses. Improve counseling skills in an outpatient setting. Promote continued development of basic nutrition care skills and provide the opportunity to participate in a team approach to patient care.

I. Rotation Preparation (Complete prior to starting rotation.)
   A. Contact the dietitian prior to the first day of the rotation to make necessary arrangements.
   B. Prepare written list of goals and objectives for rotation to discuss with the dietitian on Day 1

I. Routine Duties
   A. Meal rounds: at least two or three times a week.
   B. Observe intake: good, fair, poor; note on patient care notebook.
   C. Honor food preferences as possible. Do not encourage patients to voice numerous preferences. Do honor food preferences to improve intake or tolerance.
   D. Modify consistency as indicated to improve tolerance and intake. May change consistency toward liquid as indicated without order. Must have doctor's order to change consistency toward more solid as there may be danger of choking or other problems of which one is not aware. Good idea to check with nurse working with patient before consulting doctor concerning change in order.
   E. Discharge planning at least once each week. Be prepared to contribute during the meeting concerning appropriate/present diet for patients, rationale for diet, patient's intake, tolerance, and recommendations.
   F. Screen assigned Oncology patients admitted during rotation. Follow-up assigned patients as needed. Follow-up progress notes as needed, or according to VA documentation standards (Patients severely compromised – weekly, patients moderately compromised – every 2 weeks, patients mildly compromised – every 3 weeks, patients with normal nutrition status – monthly, patients receiving comfort care – weekly).
   G. Oncology Nutrition clinic: outpatient consults as needed

Revised November 2011
H. Recommend use of Ward Diet Order List and In patient Roster, obtained through computer, for up-to-date listing of patient's diet orders, between meal feedings, etc. To obtain Ward Diet Order List, use computer menu as follows:
   i. Clinical Dietetics
   ii. Dietetic List and Reports (DR)
   iii. Ward Diet Order List (WD)
I. Attend pertinent lectures and presentations. Check with dietitian.

II. Rotation Assignments
   A. Complete assignments as assigned.

III. Evaluation
   A. Submit or present written/oral assignments to the dietitian as requested.
   B. Schedule rotation evaluations with the dietitian for the last day of the rotation and give evaluation form to the dietitian to complete by Thursday of the last week of rotation.
TEXAS A&M UNIVERSITY DIETETIC INTERNSHIP
ROTATION INFORMATION: Nutrition Support VA

Nutrition Support VA:  Location: CTVHCS – Temple
                      1901 South 1st Street
                      Temple, TX 76501
                      Duration: 80 hours

Goals: 1. Increase knowledge and enhance skills in meeting nutritional care needs of patients critically ill and surgical intensive care patients and including those who are receiving parental or enteral feedings. Become familiar with the role of each member of the nutrition support team.

2. Gain skill in physical assessment of the critically ill patient to determine if a patient has a vitamin deficiency by assessing their skin, determine if a patient has appropriate bowel function to start enteral feeding, determine a patient's frame size using various methods and determine a patient’s fluid status from observation.

I. ROTATION PREPARATION
   A. Contact dietitian 1 week prior to rotation to make necessary arrangements.
   B. Read required articles and text chapters. Be able to discuss any of this information on the first day of the rotation.
   E. Complete the worksheet for parenteral formulas and turn it in the first day of rotation (Worksheet is found immediately behind this rotation information. Use your own ht/wt information).

II. ROUTINE DUTIES
   A. Arrive on time (daily). If time off is needed, you must discuss on first day of the rotation.
   B. Check Vista and Outlook email messages daily and throughout the day.
   C. Print ward roster and screening sheets for consults, referrals and patients needing reassessments (daily). Keep roster updated with nutrition status, and follow-up dates.
   D. Check for doctors’ consults, screening referrals and follow-ups (daily). Maintain flow sheets on all patients followed by NST. Update daily.
   E. Visit each patient daily and be able to discuss their nutrition intake with preceptor and medical team.
   F. Attend daily rounds for pulmonary/medical, cardiology. Surgery team on Friday mornings.
   G. Present any new patients during weekly to NST.

Revised February 2012
H. Give diet instructions as needed.
I. Observe placement of feeding tube, PICC line, central line and abdominal surgery if possible.
J. Observe endoscopic or radiologic placement of feeding tube, if possible.
K. Observe preparation of parenteral nutrition in pharmacy.
L. Use appropriate abbreviations; do NOT use all caps in typing notes.

III. ROTATION ASSIGNMENTS
A. Complete Nutrition Support questions/definitions and turn in by end of first week.
B. In the 2nd week choose an article in JPEN/NCP and present it to the staff during lunch. Have slides and handouts as appropriate.
C. Case studies and other projects as assigned.
D. Attend pertinent lectures and presentations.
E. Sign on to the ASPEN website and get an account by the end of the 2nd day and explore the website and discuss with preceptor.

IV. EVALUATION
A. Submit completed written assignments to the Dietitian as requested.
B. Submit completed evaluation forms and written assignments no later than 3 days prior to the last day of the rotation or as requested by the preceptor.
C. Incomplete or late assignments will result in points being taken off evaluation and may result in failure of the rotation.
READING LIST – To Be Read Prior To Rotation


(provided by TAMU Director of the Dietetics Internship: the intern is responsible for reading the following chap: 1 through 4, 6, 20, 21.


Clinical Workbook-Nutrition Support Rotation

1. Define the following and their appropriate use:
   a. Bolus feeding
   b. Intermittent feeding
   c. Continuous feeding
   d. Gravity feeding

2. Distinguish the difference between:
   a. Osmolite, 1 cal/ml and Promote 1cal/ml and Jevity 1cal/ml
   b. Nepro vs Suplena vs 2calHN
   c. Jevity vs Ensure Plus vs Boost Plus
   d. Vivonex RTF vs Optimental vs Vital AF
   e. Oxepa vs Impact

3. Be able to verbalize the indications for the use of the above formulas.

4. Know the amount of the different formulas needed to meet the RDI

5. Verbalize the nutritional calculations of enteral and parenteral patient's needs.

6. Calculate the appropriate parenteral substrate mixture.

7. Demonstrate an understanding of the rationale for additives used in parenteral nutrition.

8. Write a parenteral nutrition order; write an enteral feeding order.
CALCULATING NUTRITION NEEDS FOR TPN

1. Determine total kcal needs: BEE x 1.2 to 2  
   BEE = (men) 66 + 13.7(W) + 5(H) – 6.8(A)  
       (women) 655 + 9.6(W) + 1.7(H) – 4.7(A)  
   Total kcals: _________

2. Determine protein needs: 0.6 to 2gm/kg IBW = _________gms.  
   Multiply x 4 (# kcal/gm)  
   To estimate IBW:  
   - (men) 106# + 6# for each inch over 5’  
   - (women) 100# + 5# for each inch over 5’  
   Protein kcals: _________

3. Determine non-protein kcals. Subtract protein kcals from total kcals.  
   Non-protein kcals: _________

4. Determine lipid needs: 30% to 60% of non-protein kcals = _________ kcals. Lipids come in 500 ml bottles. We give whole bottles. 20% lipids = 2 kcal/ml or 1000 kcal/bottle. Unless trying to restrict kcals use 20% lipids for TPN.  
   Lipid kcals: _________

   | 20% lipids | 10% lipids |
   | Days | Avg. kcals | Days | Avg. kcal |
   | 3 | 429 | 3 | 236 |
   | 4 | 571 | 4 | 314 |
   | 5 | 714 | 5 | 393 |
   | 6 | 857 | 6 | 471 |
   | 7 | 1000 | 7 | 550 |

   (example: 20% lipids given 5 x /week = 5000 kcal divided by 7 days/week = average of 714 kcal/day)

5. Determine dextrose needs:  
   Dextrose kcals: _________  
   - Subtract lipid kcals from non-protein kcals.  
   - Divide by 3.4 (# kcal/gm) to get gm dextrose  
   Gms dextrose: _________

Revised February 2012
TEXAS A&M UNIVERSITY DIETETIC INTERNSHIP
ROTATION INFORMATION: - St. Joseph Regional Health Center

I. Regional Hospital Experience
Location: St. Joseph Regional Health System
Rotation: 80 to 160 hours

Goal: 1. Increase knowledge of and enhance skills in meeting the nutritional care needs of patients with a wide variety of illnesses and conditions. Develop and increase skills in nutritional assessment utilizing the nutrition care process and computerized charting. Promote continued development of competence in nutrition care delivery. Gain experience with a variety of feeding modalities, including tube feeding and total parenteral nutrition. Participate in a team approach to patient care.

2. Gain skill in assessing nutrition education needs for inpatients and in planning and providing education to meet those identified needs. Enhance listening, interviewing, and communication skills. Develop ability to translate communication principles and technical nutrition information into patient counseling and teaching.

II. ROTATION PREPARATION: (Complete prior to starting rotation).
A. Contact SJRHC Human Resources Department one month prior to scheduled rotation to plan for hospital orientation and complete any hospital requirements (979-776-3777 Ext 2515).
B. Contact the Clinical Nutrition Manager two weeks prior to the first day of the rotation to make necessary arrangements and complete the Authorization for Non-Paid Internship Form.
C. Complete Safety Storm (Alpha, Beta, Gamma) and Creating a Culture of Patient Safety on the computer and bring certificates of completion on first day of rotation.
D. Read the articles on the reading list.
E. Prepare a written list of goals and objectives for rotation to discuss with the dietitian on day one.
F. Clinical Nutrition Manager will review scheduled rotation calendar and expectations for this rotation.
G. Complete case studies prior to first day of rotation.
G. Bring copy of ServSafe Certification which can be completed on-line.

Revised June 2014
H. Provide a list of procedures you would like to try to observe. (PEG placement, Modified Barium Swallow, Wound Care, Cancer Center, Diabetes Class, Bariatric Class, etc.).

I. Provide verification of liability insurance on first day of rotation.

III. ROUTINE DUTIES: (inpatient)

A. Arrive at scheduled time with clean pressed lab coat.
B. Receive directions from Registered Dietitian
C. Give Diet instructions as needed
D. Attend multidisciplinary rounds and other meetings.
E. Look up any unfamiliar medications and their important nutritional side effects and abbreviations.
F. Enter notes on patients in the electronic medical record and edit as needed after being reviewed by the dietitian.

IV. ROTATION ASSIGNMENTS:

A. Complete at least one Nutrient Intake Analysis (Calorie Count) during the rotation if possible.
B. Follow at least one patient receiving a tube feeding &/or total parenteral nutrition.
C. Complete one journal review as assigned by the dietitian.
D. Attend pertinent lectures and presentations.
E. Review education materials available.
F. Teach Coumadin class.

V. EVALUATION

A. Submit completed written assignments to the dietitian as requested.
B. Provide evaluation forms to the dietitians to complete one week prior to the last day of the rotation.
C. Schedule final rotation evaluations.
D. Submit completed evaluation forms and written rotation assignments to the Clinical Nutrition Manager by the last day of the rotation.
St. Joseph Regional Health Center Rotation Reading List

Please familiarize yourself with the following:

- **Cardiovascular**

  - [TLC guidelines - Therapeutic Lifestyle Changes Diet](http://www.nhlbi.nih.gov/cgi-bin/chd/step2intro.cgi)
  - [NIH stroke scale](http://www.ninds.nih.gov/doctors/NIH_Stroke_Scale.pdf)

- **Critical Care**

  - [ASPEN guidelines](http://www.aspen.org/)
Cardiovascular Case Study- 65 y/o Caucasian Female

Admitting Diagnosis: Cerebrovascular Accident, Ischemic stroke

Reason for Dietitian Assessment: Nursing triggers for difficulty swallowing, chewing, and stroke consult received.

Subjective
Pt currently tolerating heart healthy/diabetic, mechanical soft diet with nectar thick liquids per speech therapy recommendations. Pt with some nausea since admit, yet no emesis.

Objective
Ht: 5’4”     IBW: 120#
Wt: 178#    BMI: 30.6

Diet order: Heart Healthy, Diabetic Diet- mechanical soft textures with nectar thick liquids
Average PO taken: B: 25, L: 30,D: 45% yesterday

Past Medical History: HTN, TIA ‘09, DM, CAD

Pertinent Labs:  
Please indicate standard ranges of labs below:
Cholesterol: 265
TG: 346
LDL: 191
HDL: 26
HgbA1C: 8.8

Pertinent Meds:
Metformin BID, Lopressor, Zofran PRN

Additional Tests and Physical Findings:
Speech Therapy notes: Pt with mild cognitive deficits, mild expressive language deficits, and mild dysarthria. With swallowing, mild-moderate oropharyngeal dysphasia is suspected. Therefore, safest diet recommended is MECHANICAL SOFT WITH NECTAR THICK LIQUIDS USING ASPIRATION PRECAUTIONS, NO STRAWS. Likely in 1-2 days, pt diet can be upgraded.
NIH Stroke Score: 9

Assessment/Plan (Please fill in the following)

Nutrition Prescription for pt:

PES statement for patient:

Patient Specific Intervention planned:
**Reason for Dietitian Assessment:** Routine Follow Up

**Subjective**
Pt has been upgraded to regular textures and thin liquids per SLP recs based on improvement in swallowing and cognitive function. Pt tolerating diet without difficulties. MD does note pt condition stable, however, has now developed atrial fibrillation and will continue to be inpatient until INR becomes therapeutic.

**Objective**
- Ht: 5’4”
- IBW: 120#
- Wt: 178#
- BMI: 30.6

**Diet order:** Heart Healthy, Diabetic Diet

**Average PO taken:** B: 75, L: 60, D: 90% yesterday

**Past Medical History:** HTN, TIA ’09, DM, CAD

**Pertinent Labs:**
- No new labs

**Pertinent Meds:**
- Metformin BID, Zocor, Lopressor, Zofran PRN, Warfarin

**Additional Tests and Physical Findings:**
- SLP continues to work with patient.
- New Afib noted per MD
- NIH Stroke score: 2

**Assessment/Plan (Please fill in the following)**

**Nutrition Prescription for pt:**

**PES statement for patient:**

**Patient Specific Intervention planned:**
Wound Care Case Study-43 year old Caucasian male

**Admitting Diagnosis:** Infected diabetic R foot ulcer

**Reason for Dietitian Assessment:** Wound care consult received, MD consult for metabolic syndrome and morbid obesity

**Subjective:**
Pt has been tolerating po intake with no complaints of N/V, pt says his last BM was three days ago. Pt says he does not follow any specific diet at home and eats out for the majority of his meals.

**Objective:**
- **Ht:** 5’ 11”
- **Wt:** 395#
- **IBW:**
- **BMI:**

**Diet Order:** 2200 ADA

**Average PO Taken:** 100% of 3 meals yesterday

**Past Medical History:** morbid obesity, metabolic syndrome, T2DM, GERD, HTN, neuropathy secondary to DM, CKD secondary to morbid obesity and DM, Hx 3 toe amputations on R foot

**Pertinent Labs:** Please indicate standard ranges of labs below:
- **Cr:** 1.43
- **EGFR:** 62
- **Glucose:** 336
- **HgbA1C:** 10.3

**Pertinent Medications:** What is their purpose?
- **Levemir:**
- **Moderate/bedtime SSI:**
- **Colace:**
- **Vancomycin:**

**Additional Tests and Physical Findings:**
- Last BM was 3 days ago per pt
- Non-healing diabetic ulcer noted to R foot, MD notes may need surgical intervention
- 3 previous toe amputations noted to R foot
- 1+ pitting edema noted to RLE
- Stage 1 pressure ulcer noted to coccyx

**Assessment and Plan (Please fill in the following)**

**Nutrition Prescription for Patient:**
- **Kcal**
- **Protein**
- **Fluids**

**PES Statement:**

**Nutrition Intervention:**
Reason for Dietitian Assessment: Patient is due for a follow-up today

Subjective:
Pt is s/p R BKA due to non-healing diabetic ulcer. Pt reports poor appetite due to pain and nausea, says he is only able to eat about half of his meals. Pt says he has not had a BM in ~8 days.

Objective:
Adjusted IBW for BKA: ______

Diet Order: 2200 ADA

Average PO Taken: 25%, 50%, 25% yesterday

Pertinent Labs:
Cr: 1.08
eGFR: 80
POC last 24 hours: 185-360

Pertinent Medications: What is their purpose?
Zofran PRN: ________________________________________________________
Dulcolax: _________________________________________________________

Levemir, Vancomycin, Aggressive/bedtime SSI

Additional Tests and Physical Findings:
Pt underwent a R BKA yesterday
Last noted BM was 8 days ago

Assessment and Plan (Please fill in the following)

Nutrition Prescription for Patient:
Kcal ___________ Protein ___________ Fluids ___________

PES Statement:

Nutrition Intervention:

Additional questions:
1) What are some risk factors associated with skin breakdown and delayed wound healing? Which of these does this patient have?

2) What are some macro/micronutrients that are beneficial in wound healing?
Pancreatitis Case Study – 30 y/o Female

Admitting Diagnosis: Severe Pancreatitis

Reason for Dietitian Assessment: decreased po intake, N/V, diarrhea

Subjective:
Patient is currently NPO. She currently has no complaints of N/V. MD has placed a dobhoff tube to initiate Perative tube feeding at 20 ml/hr with a goal rate of 40 ml/hr. (Perative provides 1300 kcal/L, 66.7 gm protein/L, and 790 ml free water/L).

Objective:
Height: 5’7”  
Wt= 130#  
IBW= 135#  
BMI= 20.4

Diet Order: NPO

PMH: alcohol abuse

Pertinent Labs:  
1)____________ 
2)____________

Pertinent Medications: What is their purpose?  
Reglan.................................................................................................................
Insulin..............................................................................................................

Additional Tests and Physical Findings:  
Abdominal ultrasound has confirmed biliary duct blockage.

Assessment and Plan:

Estimated Needs:  
Kcal:_____________  
Protein:______________  
Fluid:______________

PES Statement: ................................................................................................
.....................................................................................................................

Nutrition Intervention: ....................................................................................
.....................................................................................................................
.....................................................................................................................

Tube Feeding Calculations for MD goal rate:  
Kcal:_____________  
Protein:______________  
Free Water:______________
Kcal/Kg:___________  
Gm/Kg:______________
Supporting Questions:

1) What are the risk factors for pancreatitis? _________________________________
________________________________________________________________________

2) What are the functions of the pancreas?
   a) Exocrine________________________________________________________
      __________________________________________________________________
   b) Endocrine______________________________________________________
      __________________________________________________________________

3) What would vitamin and mineral supplements would you recommend? ________
   ______________________________________________________________________

4) The patient did not tolerate her tube feeding and the doctor initiated the
   following TPN at 95 ml/hr
   Dextrose 30%(1000 ml)
   Amino Acids 8.5% (1000 ml)
   20% lipids (250 ml)

   a) What would this TPN provide?
      Kcal: ___________ Protein: ___________
      Dextrose Load: ___________ Lipids (gm/kg): ___________

   b) Is this TPN appropriate to meet the patient’s needs? YES NO

   c) If the TG are 404, would lipids be appropriate for the TPN? YES NO

5) A patient is diagnosed with mild to moderate pancreatitis. MD notes that this has
   resolved, what diet would you recommend advancement to? _________________
Oncology Case Study – 57 y/o Male

Admitting Diagnosis: Esophageal Cancer

Reason for Dietitian Assessment: decreased po intake and weight loss

Subjective:
The patient reported that at home he was only able to take in Ensure with ice cream for several days. He complained that he has had difficulty swallowing food and has mostly been able to take in liquids. He stated that he usually weighs ~125#, but has lows about 20# in the month.

Objective:
Height: 5’8”  IBW= 154#
Wt= 105#  BMI= 16.0

Diet Order: Regular diet

PMH: alcohol abuse, esophageal cancer

Pertinent Labs:
No pertinent labs

Pertinent Medications: What is their purpose?
Megace
Dulcolax

Additional Tests and Physical Findings:
The patient appears to have muscle wasting
Last BM was 5 days PTA.
Radiation and chemotherapy are scheduled to start

Assessment and Plan:

Estimated Needs:
Kcal: ___________  Protein: ___________  Fluid: ___________

PES Statement: __________________________________________________________
________________________________________________________________________

Nutrition Intervention: ____________________________________________________
________________________________________________________________________
________________________________________________________________________

Supporting Questions:
1) What are the common symptoms with cancer treatment? ______________________
_________________________________________________________________________

2) What symptoms is the patient experiencing and what advice would you offer to help alleviate these symptoms? ______________________
_________________________________________________________________________
Pediatric Case Study – Appendicitis 7 yr old male

**Admitting Diagnosis:** Acute appendicitis

**Reason for Dietitian Assessment:** Nursing nutrition screen received for poor appetite, nausea, and vomiting for at least 3 days prior to admit

**Subjective:** The patient came in accompanied by his mother, who reports symptoms started 3 days ago and include abdominal pain, nausea, vomiting, and subsequently poor appetite. His mom reports last oral intake was yesterday morning at breakfast. He is a well-developed and otherwise healthy, active child with no significant past medical history. He is scheduled for an appendectomy this afternoon.

**Objective**

- Ht: 3’8”
- Wt: 21.8 kg (48 lb)
- BMI: 17.4

**Knowledge Check:** Is BMI interpreted the same way for adults and children? Is this patient at a healthy weight for his age? Explain.

**Diet order:** NPO

**Average PO taken:** none since admission

**Past Medical History:** no significant past medical history

**Pertinent Labs:** Please indicate standard ranges of labs below

<table>
<thead>
<tr>
<th>Test</th>
<th>Value</th>
<th>Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>WBC</td>
<td>16.5H</td>
<td>thou/uL</td>
</tr>
<tr>
<td>Na</td>
<td>132L</td>
<td>mmol/L</td>
</tr>
<tr>
<td>Glu</td>
<td>75</td>
<td>mg/dL</td>
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<tr>
<td>Cr</td>
<td>.47</td>
<td>mg/dL</td>
</tr>
<tr>
<td>Alb</td>
<td>3.5</td>
<td>g/dL</td>
</tr>
</tbody>
</table>

**Pertinent Meds:** Ciprofloxacin, Zofran PRN, Morphine
Additional Tests and Physical Findings: Abdominal pain to the LLQ with associated tenderness, active bowel sounds, last BM reported the day before admission

Assessment/Plan (Please fill in the following)

Nutrition Prescription for pt:

Estimated Needs:

Kcal range:

Protein range:

Fluids:

*Indicate the method used to determine needs (i.e. kcal/kg or other estimation methods)

PES statement for patient:

Patient Specific Intervention planned:

Goals:

Monitoring Indicators:
Critical Care Case Study #1
57 year old male with ARDS

Admitting Diagnosis: respiratory failure, pneumonia, and ARDS

Reason for RD Assessment: TF ordered, the patient is on a vent

Subjective:
The patient is currently intubated and sedated with propofol. Nepro TF has been ordered and is running at 30 ml/hr. (Nepro provides 1800 kcal/day, 81 gm protein/L, and 727 ml free water/L).

Objective:
- Height: 5’7”
- Weight: 177# (80.7 kg)

What would you need to look at to calculate his estimated needs?

Diet Order: NPO/TF

PMH: HTN, hypercholesterolemia

Recent Labs:
- Na= 135 (low)
- K= 5.4 (high)
- Glucose= 167 (high)
- BUN= 73 (high)
- Cr= 3.17 (high)
- GFR= 22 (low)
- Ca= 9.2

Pertinent Medications: What is the significance of this medication?

Current TF provides: (Include any additional kcal from other sources).
- Kcal: ________
- Protein: ________
- Free Water: ________
- Kcal/kg: ________
- Gm/Kg: ________

Assessment and Plan:

Estimated Needs: Based on the Penn State Equation using 101 F and 13.8 L/min.
- Kcal: 2137
- Protein: ________
- Fluid: ________

% of Needs Met:
- Kcal: ________
- Protein: ________
- Fluid: ________

PES Statement: _______________________________
**Nutrition Intervention:**
Is Nepro the appropriate formula? And why or why not? ________________________________

What would your recommendation be? ________________________________________________

---

**TF Recommendation:**
Formula: __________  Rate: ________  Supplements: ________________
Flushes: __________________________________

TF would provide:
Kcal: ________  Protein: ________  Free Water: _______
Kcal/kg: ________  Gm/Kg: ________
TEXAS A&M UNIVERSITY DIETETIC INTERNSHIP
ROTATION INFORMATION:
Outpatient Digestive Disease Center

Location: Memorial Hermann Medical Plaza, Texas Medical Center
Rotation: Variable - 80 to 120 hours

Goals:

1. Increase knowledge and enhance skills in gastrointestinal disease and medical nutrition therapy recommendations for different digestive diseases.
2. Complete a full nutrition assessment that includes all steps in the Nutrition Care Process.
   - Nutrition Assessment through data review, interview and physical examination
   - Nutrition Diagnosis using a PES statement format
   - Nutrition Intervention that is evidence-based
   - Nutrition Monitoring and Evaluation
3. Gain skills in providing nutrition care for home nutrition support patients, including enteral and parenteral nutrition

Rotation Preparation: (Complete prior to starting rotation)
   a) Contact preceptor minimum of 2 weeks prior to the first day of the rotation to make necessary arrangements.
   b) Read the articles on the reading list.

Routine Duties:

   a) Arrive on time daily.
   b) Check email messages daily.
   c) Discuss with preceptor nutrition plan prior to discussing recommendations with patients.
   d) Give diet instruction and nutrition education as needed.
   e) Look up unfamiliar conditions, medications and their relationship with food and nutrition, if any.
   f) Notes on your patients should be written out in the medical record for review and approved or revised by preceptor before the end of the day at least 60 minutes prior to end of work day.
Rotation Assignments:

a) Complete a full nutrition plan by the end of the rotation.
b) Provide 1:1 diet education under supervision of preceptor (will be given opportunity to observe diet educations before being expected to educate on your own).
c) If the opportunity arises, conduct a nutrition interview and evaluation for a patient on home nutrition support.
d) Case studies and other projects as assigned.
e) Attend pertinent lectures and presentations.
f) Review education materials available

Evaluation:

a) Submit complete written assignments to the dietitian as requested.
b) Submit completed evaluation forms and written rotation assignments to the Director no later than 3 days prior to the last day of the rotation.
c) Incomplete or late assignments will usually result in failing the rotation.


SCHEDULE 2

**Dietetic Student/Intern Activities**

**Description of Permitted Activities**
All activities in which the Dietetic Student/Intern is involved must be under the direct supervision of the dialysis facility’s FMS Registered Dietitian.

- Review FMCNS HIPAA New Hire Privacy Training (PowerPoint)
- Review FMCNA Electronic Information Security Awareness Manual (PowerPoint) reviewing sections(s) pertinent to tasks the student will be performing
- Tour of the dialysis facility and meet the facility management and staff
- Review schedule and objectives for rotation
- Review typical work flow for Renal Dietitian
- Discuss dress code
- Sign necessary paperwork – Confidentiality Agreement for Dietetic Students/Interns (Exhibit C)

The Primary Preceptor (PP) will assign all cases to the Dietetic Student/Intern.

Primary Preceptor must obtain verbal consent from the patient prior to the Dietetic Student/Intern having any contact with the patient.*

The Dietetic Student/Intern will introduce him/herself at all times as such in interactions with patients, designated caregivers, families and staff.

The Dietetic Student/Intern’s supervised practice must coincide with the on duty hours of the PP. Dietetic Student/Interns are not permitted to be in the center when the Primary Preceptor is not available.**

The Dietetic Student/Intern may under direct guidance of the Renal Dietitian:
- Conduct a nutrition interview
- Calculate a diet prescription recommendation
- Counsel patients and/or designated caregiver on the prescribed renal diet
- Complete initial, 90 day, semi-annual (if applicable by State), and annual Comprehensive Interdisciplinary Assessments
- Review monthly nutrition data with patients and/or designated caregivers
- Write monthly nutrition progress notes
- Provide input to the development and implementation of nutrition plan of care
- Prepare patient and/or staff education activities
- Participate in Quality Assessment and Performance Improvement and/or other interdisciplinary team meetings

All written documentation by the Dietetic Student/Intern must be reviewed, approved, and signed by the Primary Preceptor prior to inclusion in the medical record. At no time and under no circumstance, will the Dietetic Student/Intern document in the record without following this procedure as specified.

* The Primary Preceptor is responsible for assessing all patients and being familiar with their nutrition status prior to assigning the patient to the Dietetic Student/Intern.
**Under no circumstances is the Dietetic Student/Intern expected to carry a caseload or in any way to be used as an additional nutrition resource by facility management.**

**Description of Suggested Activities**
All activities in which the Dietetic Student/Intern is involved must be under the direct supervision of the dialysis facility’s FMS Registered Dietitian.

The activities in which the Dietetic Student/Intern participates will be determined by the Primary Preceptor (FMS registered dietitian) based on guidance from the school/internship program, the time allowed for the renal rotation, and the resources of the FMS dialysis facility. The following are suggested, not mandatory, activities.

**Orientation to the Dialysis Facility and Renal Rotation**

- Observe on dialysis floor:
  - Connection and disconnection of dialysis from an acceptable distance wearing a cover garment that provides an impervious barrier to fluids
  - Dialysis Machine
- Review the different types of access, dialyzer, HD dialysate solutions, UF, online clearance.
- Treatment Options Video (FMS)
- Meet with Ancillary Staff: PCT, RN, PD Nurse (if available), Social Worker
- Meet with a patient volunteer to hear a patient’s view of the dialysis experience

**Review of Renal Nutrition Basics**

- Nutrition Guidelines for HD/PD (Nutrition Considerations for the CKD Patient)
- Renal Specific Labs
- Renal Medications
- Mineral Metabolism Management principles
- Dialysis Adequacy principles
- Anemia Management principles
- Review of Study Guide given by internship/coordinated program director
- Videos:
  - Action for Albumin Action for Life
  - Strong Bones Healthy Heart: Put Phosphorus in its Place
  - Finding Hidden Sources of Phosphorus at the Grocery Store
- Review resources for use during rotation:
  - FMS resources and Patient Education Handouts
  - Non FMS Patient Education handouts
  - Pocket Guide to Nutrition Assessment of the Patient with Chronic Kidney Disease (CRN/NKF)
  - Clinical Guide to Nutrition Care in Kidney Disease (ADA)
  - Guidelines to the Nutrition Care of the Renal Patient (ADA)

- View renal related websites such as:
  - www.ultracare-dialysis.com
  - www.kidneyschool.org
  - www.kidney.org
  - www.ikidney.com
Under the direct supervision of the Primary Preceptor:

- Complete Initial Comprehensive Patient Assessment (CIA)
- Calculate a diet prescription recommendation
- Provide nutrition counseling to patient/designated caregiver on the prescribed renal diet
- Develop and educate patient/designated caregiver about meal plans and sample menus
- Review monthly nutrition data
- Provide nutrition counseling based on lab and related data
- Complete a Monthly Nutrition Progress Notes
- Complete a 90 day, semi annual (if applicable), and annual CIA
- Assist in development and implementation of nutrition plan of care
- Participate with the Qualified FMS Registered Dietitian in any interdisciplinary team meetings
- Create nutrition related projects for patients or staff (such as, bulletin board, patient/staff education handouts, games, lobby activity)
DSI Renal

Outpatient Dialysis Rotation Description

Goal: To observe and work with the renal dietitian in the dialysis center. To be able to work independently as possible while under the supervision of the renal dietitian observing all rules and regulations on assigned duties and projects. To develop a basic knowledge of renal nutrition by using critical thinking and the nutrition care process.

1. Rotation Preparation: www.Kidneyschool.org
   a. Click on “Learning Modules”
   b. Mandatory completion of Modules 1, 2, 7, 9, 15 and one other module of choice. For each module write down 10 new things learned, 5 important questions that a renal dietitian should be able to answer pertaining to that topic, and 1-2 questions you have on that topic.

2. Routine Duties:
   a. Meet Monday, Wednesday, Friday at 9am unless otherwise specified to discuss progress on weekly assignments, review learning objectives, and answer questions
   b. Cover assigned patients
   c. Complete assignments in a timely manner
   d. Explain and discuss all assignments
   e. Talk with patients, complete patient journal

3. Rotation Assignments: Per “DSI Dialysis Rotation Schedule”

4. Evaluation:
   a. Evaluation will be based upon performance, critical thinking process, assignments, and interaction with patients. All assignments are expected to be turned in on time. The intern is expected to be proactive in getting all questions answered in a timely manner.
   b. Daily meetings will provide opportunity for feedback to intern and from intern.
   c. A written formal evaluation will be given the last day of the rotation and the intern is expected to bring the evaluation forms to the preceptor at the beginning of the last day together.
DSI Dialysis Rotation Description

**Week 1:**

**Dialysis Assignment:**
- Create educational board on topic of choice/ include 2 recipes
  - Flavorful low sodium choices
  - Phosphate additives and fresh alternatives
  - Eating out – best choices in our neighborhood
  - The “Magic” of your Phosphate Binder
  - Identify Specific Brands: Did you know? Great choices at your local Kroger, Walmart and HEB)
- Other approved by preceptor
- Create or modify educational sheet for patients to match board
- Patient Journal

**Education/Competencies:**
1. Review educational priorities for dialysis patients
   - Sodium
   - Phosphorus
   - Potassium
   - Protein
   - Carbohydrates
   - Fluid
2. Review Laboratory Values
   - Albumin
   - Potassium
   - Glucose
   - HgbA1c
   - Triglycerides
   - CO2
   - Kt/V or URR
   - PO4
   - PTH

**Week 2:**

**Dialysis Assignment:**
- Fill in lab sheets with dietitian
- Review labs with 3-5 patients
- Complete documentation on each patient
- Practice dosing Zemplar for 1 shift of patients using protocol
- Patient Journal

**Education/Competencies:**
1. Review principles of motivational interviewing * “Application of Motivational Interviewing Principles for CKD Patients.”
   [http://www.ckd5education.com/on-demand-programs](http://www.ckd5education.com/on-demand-programs)
2. Free access article on MI in CKD that is an excellent review: Steve Martino. “Motivational Interviewing to Engage Patients in CKD Management” Blood Purification 2011; 31:77-81.
   - Ca x PO4 Interaction
   - PTH, Ca & PO4 interaction
   - Vitamin D Receptor Analog Medications
   - Types of Binders
   - Resources to Obtain Binders
   - What is a calcimimetic agent?
**Week 3:**

**Dialysis Assignment:**
- Complete all QAPI documentation
- Complete 1 IDT comprehensive assessment and care-plan
- Review components of dietary assessment for dialysis patients
  - Go through CMS IDT form
  - Go through CMS care-plan form
- Patient Journal

**Education/Competencies:**
- Observe pt put-on and take-off
- Water-treatment tour with James
- Explanation of machine from James
- Articles: Will obtain from preceptor

**Week 4:**

**Dialysis Assignment:**
- 3-day diet plan for one of the patients you saw earlier in the month
- Grocery store assignment per preceptor
- Find 1 article on topic of choice for future student
- Patient Journal

**Education and Competencies:**
- Assessing fluid status and IDWG
  - Article 2: “Advising dialysis patients to restrict fluid intake without restricting sodium intake is not based on evidence and is a waste of time” – Neprol Dial Transplant (2001) 16:1538-1542, Charles RV Tomson
- Short KDIGO/KDOQI guideline review on topic of choice
“You cannot always cure, but you can always care.”

“No disease suffered by a live man can be known, for every living person has his own peculiarities and always has his own peculiar, personal, novel, complicated disease, unknown to medicine –- not a disease of the lungs, liver, skin, heart, nerves, and so on mentioned in medical books, but a disease consisting of one of the innumerable combinations of the maladies of those organs. This simple thought could not occur to the doctors (as it cannot occur to a wizard that he is unable to work his charms) because the business of their lives was to cure, and they received money for it and had spent the best years of their lives on that business. But above all that thought was kept out of their minds by the fact that they saw they were really useful [...] Their usefulness did not depend on making the patient swallow substances for the most part harmful (the harm was scarcely perceptible because they were given in small doses) but they were useful, necessary, and indispensable because they satisfied a mental need of the invalid and those who loved her –- and that is why there are, and always will be, pseudo-healers, wise women, homoeopaths, and allopaths. They satisfied that eternal human need for hope of relief, for sympathy, and that something should be done, which is felt by those who are suffering.”

– Leo Tolstoy

The most important part about health care is talking with the people. Knowing how to build professional relationships of trust, start conversation, ask questions, and listen carefully to what each individual real needs are. Knowledge and competency in your field are only transferable when you have a good relationship with your patient. The most brilliant solutions in healthcare are always offered by the patient, and then shared by the health care professional who listened and understood the problem.

You will be introduced to all the patients on the first day. All the patients will be told that you will be getting to know them and will be asking questions to understand more about dialysis. Each day of your rotation you are expected to talk to at least one patient and ask them a question about their dialysis treatment. All questions should be open-ended, or lead to an open-ended question for discussion. You should summarize their answer daily in your patient journal. Do not include patient names in the journal.

Examples of questions you can ask to patients:

“What are your favorite fruits [vegetables, breads, etc…] to eat?”

“Are there foods you limit now being on dialysis that you miss?”

“What do you do at the holidays to follow your dietary restrictions?”

“What did you think when you first started dialysis?”

“How did you find out that your kidneys had problems?”

“What tricks do you use to not drink too much fluid?”

“How does dialysis feel before, during, and after for you?”

The list is endless as far as questions. Think about what things the patients are interested in. Ask them what you really want to know about what it is like to be a patient or how things could be better.