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Clinical Rotation  
ADIME  
AIDS Chart

## CASE STUDY #32 AIDS

### INTRODUCTION

A patient with AIDS could have pneumonia, a liver complication, renal involvement, endocarditis, or any combination of the above. Usually with these problems, diarrhea, GI cramps, and infections of the mouth and esophagus are common. This complicates nutritional therapy and frequently a TF or TPN is necessary. Each case is different and has to be evaluated with the general nutritional goals plus the additional goals for each complication.

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### SKILLS NEEDED

#### ABBREVIATIONS:

Knowledge of the following abbreviations is required in order to understand this case. You should learn these abbreviations before you begin the study. AIDS, ARC, D<sub>5</sub>W, HIV, TF, and TPN (Appendix C).

#### FORMULAS:

The formulas used in this case study include: ideal body weight, caloric needs using the Harris-Benedict equation, total caloric and protein requirements, simple percentages for tube feeding and I.V. calculations, and flow rates (Appendix A, Tables 7, 8, and 17).

#### MEDICATIONS:

Become familiar with the following medications before reading the case study. Note the diet-drug interactions, dosages and methods of administration, gastrointestinal tract reactions, etc.

1. Retrovir (zidovudine, or formally AZT);
2. Vincasar PFS (vincristine sulfate);
3. Mycostatin (nystatin).

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LT is a 35 YOWM who is employed in a major department store. He is a buyer for the men's clothing department and has been successful in his job for the past 10 years. He brags about how hard he works during the week and how hard he parties on weekends. He calls himself a fast-lane single and does not hesitate to admit that he has tried various drugs. As with many drug users, the pills and marijuana led to I.V. drug abuse. About 2 years ago, he started to notice that he was becoming weaker and easily fatigued. His appetite was poor and he was losing weight. He woke up during the night soaking wet with severe sweats. Before the symptoms started, LT weighed 190 lbs and was 6'1". When he was approaching 170 lbs, he went to a physician. Some blood work was done and indicated that he had elevated WBC, elevated sedimentation rate, and a normocytic normochromic anemia. He was admitted to the hospital. Further tests indicated that he had infective endocarditis. He underwent antibiotic therapy and was sick for several weeks. He continued to lose weight to 165 lbs. While in the hospital, he was also tested for AIDS since endocarditis is not an uncommon complication of I.V. drug abuse. LT tested HIV+. LT did not show any symptoms of AIDS in this hospitalization, but his physician told him that he should be evaluated frequently. Any change in his health status should be reported to the physician immediately.

Since LT had been using I.V. drugs for some time, it was not known how long it was since LT had been exposed to the AIDS virus. Not long after LT's discharge from the hospital, he began to have generalized lymphadenopathy. He returned to his physician and was diagnosed as having ARC. During this time his temperature was elevated and he was still losing weight. He was beginning to experience some abdominal cramps and diarrhea. His physician suggested that he start on zidovudine (Retrovir). Not long after this, LT noticed an unusual bump on his chest. When he went back to his physician, it was diagnosed as Kaposi's sarcoma. He was given vincristine sulfate (Vincasar PFS) to treat the Kaposi's sarcoma.

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**CS#32 AIDS**

7. List any nutritional complications of each of these drugs:

Vincristine sulfate (Vincasar PFS):

Zidovudine (Retrovir):

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Not long after he had taken these medications, LT's symptoms increased with an elevated temperature (which was now 100.6° F), N/V, headaches, diarrhea, malaise, and extreme fatigue. He had to take a leave of absence from work. He developed a bad cough and chest congestion. His physician admitted him to the hospital for tests and found LT to have a Pneumocystis pneumonia caused by Pneumocystis carinii. During LT's hospital stay, he continued to have complications. He experienced infections such as candidiasis. This made it very difficult for him to eat and required another medication, nystatin (Mycostatin). LT also experienced severe diarrhea and he became very depressed. His ser alb was 2.2 g/dl. His desire to eat was affected, so the RD recommended that LT be given a tube feeding. The physician agreed. A feeding tube was placed into the small bowel and two I.V.s were infusing, one with 3NS @ 25 cc/hr for medications and one with D<sub>5</sub>W @ 50 cc/hr.  
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**QUESTIONS CONTINUED:**

8. What diet therapy would you recommend for LT considering the above conditions? Would his stress factor and energy needs change? Explain your answer.

9. Why would candidiasis make it difficult to eat?

10. What is nystatin (Mycostatin)? List its possible adverse reactions.

11. What is the significance of the ser alb being 2.2 g/dl? Discuss the pathophysiological effects this could have on LT's GI tract.

## HIV Chart Notes

### **Assessment**

The patient is a 35 y/o male diagnosed with AIDS.

#### *Anthropometric Data*

Ht: 6'1"

Wt prior to diagnosis: 190 lbs

Wt after diagnosis: 165 lbs

BMI after diagnosis: 21.8 (normal)

*Pertinent Lab Values:* Serum albumin (2.2 g/dL)

*Medical History:* The patient has been diagnosed with the following, elevated WBC, elevated sedimentation rate, and normocytic normochromic anemia. He has also been diagnosed with infective endocarditis, ARC, and Kaposi's sarcoma. Also diagnosed with pneumocystis carinii, and candidiasis.

*Medications:* Retrovir, Vincristine sulfate, Mycostatin

*Diet History:* Before being diagnosed HIV+, the patient started experiencing a decline in his appetite which lead to significant weight loss. Patient is currently on a tube feeding since his condition has worsened which has affected his desire to eat.

### **Diagnosis**

Unintended weight loss related to depression and disordered eating as evidenced by weight loss of 25 lbs, diagnosis of ARC, diagnosis of Kaposi's sarcoma, and candidiasis.

### **Intervention**

1. Normalize patient's serum albumin levels (3.5 – 5.5 g/dL).
2. Continue feeding tube prescription.
3. Recommend throat lozenges to the patient to aid with the candidiasis.

### **Monitoring and Evaluation**

1. Monitor for weight gain or weight loss and change feeding tube prescription as needed.
2. Check candidiasis, if patient is able to masticate and swallow food, modify patient's diet to include pureed food and continue to modify until patient is able to consume a regular diet.

## Questions:

1. Intern's comments about nutritional intervention(s) for this patient. How receptive was / were the patient and family to nutrition intervention? What were the factors that influenced this the most? Patient/family factors? Institutional/environmental factors?

N/A

2. Was the nutrition intervention successful? Why/Why not?

N/A

## Glossary of unfamiliar terms:

**Erythrocyte Sedimentation Rate** – the rate at which red blood cells settle at the bottom of a test tube. The faster they settle, the higher the likelihood that there is inflammation in the body. Inflammation can be caused by different factors such as a chronic disease or immune disorder.

**Lymphadenopathy** – a disease in which lymph nodes increase in size.

**ARC** – stands for AIDS-related complex. ARC is a group of symptoms (fever, weight loss, and lymphadenopathy) that is associated with the presence of HIV antibodies followed by development of AIDS.

**Retrovir** – Retrovir is a medication indicated to be used for the treatment of HIV-1 (in combination with other antiretroviral agents). It is also used to prevent transmission of maternal-fetal HIV-1.

**Vincristine Sulfate** – Medication used for the treatment of acute leukemia.

**Pneumocystis Carinii** – this is a type of lung infection that affects individuals with weakened immune systems. It is caused by a small parasite that can infect the lungs, eyes, ears, skin, liver, and other organs. People with HIV are susceptible to this infection when their CD4 counts fall below 200.

**Mycostatin** – Mycostatin is a cream used topically to treat fungal infections.

## Applies to:

**CRDN 1.6** Incorporate critical-thinking skills in overall practice.

**CRDN 2.1** Practice in compliance with current federal regulations and state statutes and rules, as applicable and in accordance with accreditation standards and the Scope of Nutrition and Dietetics Practice and Code of Ethics for the Profession of Nutrition and Dietetics.

**CRDN 2.2** Demonstrate professional writing skills in preparing professional communications.

**CRDN 2.11** Show cultural competence/ sensitivity in interactions with clients, colleagues and staff.

**CRDN 3.1** Perform the Nutrition Care Process and use standardized nutrition language for individuals, groups and populations of differing ages and health status, in a variety of settings.

**CRDN 3.3** Demonstrate effective communications skills for clinical and customer services in a variety of formats and settings.

**CRDN 4.10** Analyze risk in nutrition and dietetics practice.