

# Essential Role of Parenteral Nutrition

## in the Management of Problem Wounds

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### OBJECTIVE:

Explore potential role of parenteral nutrition in the management of problem wounds. Determine if patients who received standard wound care per the Wound Healing Society, Chronic Wound Care Guidelines and failed to progress may benefit from a complete nutritional assessment in order to optimize nutritional status.

### BACKGROUND:

This is a retrospective study of three (3) patients with non-healing wounds. Each patient received treatment following the Wound Healing Society, Chronic Wound Care Guidelines. All were slow to heal or not responsive to standard wound care. As an adjunct to standard wound care, each patient received a basic nutritional assessment via the Nestle Mini Nutritional Assessment, a baseline pre-albumin and/or albumin level and an oral intake calorie and protein count. All of the patients had a pre-albumin of less than 19 and/or an albumin level of less than 3.5 with a corresponding weight loss equal to or greater than 10% of total body weight. After a comprehensive assessment of each patient's nutritional status, dietary recommendations were made and followed without improved nutritional status resulting in there selection to receive parenteral nutrition. Once parenteral nutrition was initiated, correcting the nutritional deficits, all ulcers progressed rapidly toward healing and wound closure.

### METHODS:

Assessment, pre-albumin level lower than 19 and/or albumin level of less than 3.5, plus a recent weight loss of 10% or greater of total body weight. Dietary recommendations were made and followed, however failed to improve nutritional status. These factors qualified the patients to receive parenteral nutrition therapy.

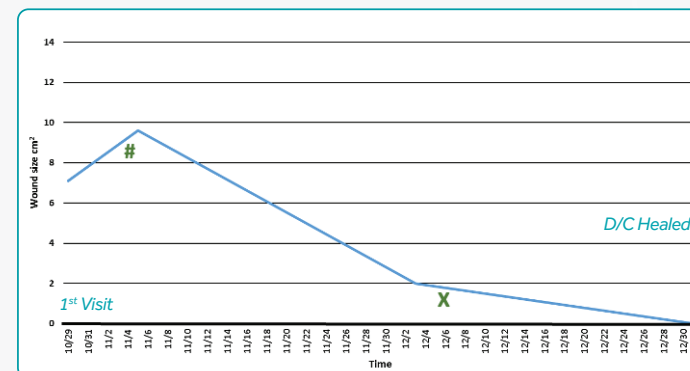
### RESULTS:

Parenteral nutrition therapy corrected the nutritional deficits. Resulting in all wounds rapidly progressing toward healing and wound closure.

#### PATIENT 1:

69 Year old with right gluteus stage 3 pressure injury (PI) post debridement. History of colon cancer. Patient states that the PI gradually appeared during hospital stay for CA. Chemo on hold until PI healed.

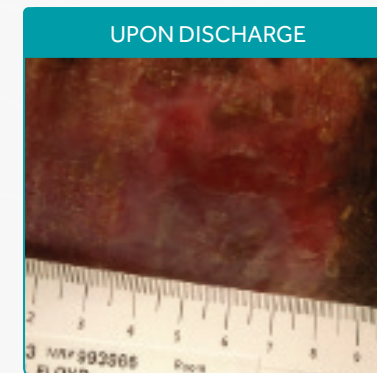
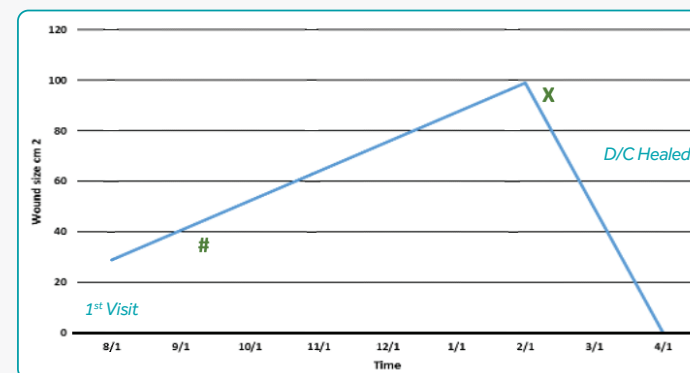
# = Comprehensive Nutritional Evaluation Completed  
X = Parenteral Nutrition Started



#### PATIENT 2:

93 Year old diabetic with an ulcer on the right lateral lower leg, age of ulcer unknown. History of HTN, DVT, A-Fib, and PVD.

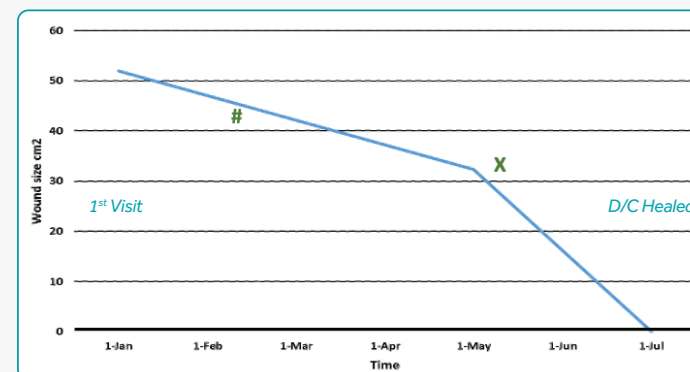
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#### PATIENT 3:

56 Year old diabetic with a Wagner Grade 2 ulcer on the left foot. History of HTN, CHF, and Charcot foot. Patient reported that wound gradually appeared over four months.

# = Comprehensive Nutritional Evaluation Completed  
X = Parenteral Nutrition Started



### CONCLUSIONS:

The role of in-depth nutritional assessment and evaluation for the problem wound patient, who is not responding to traditional care, is strongly supported by the results in these cases. Once nutritional deficits were identified and corrected through parenteral nutrition therapy, all wounds progressed quickly to healing and closure. Our conclusion, there is an essential role for parenteral nutrition in the management of problem wound patients.

### REFERENCES:

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2. Gau, B. R., et al. The impact of nutritional status on treatment outcomes of patients with limb-threatening diabetic foot ulcers. Journal of Diabetes and its Complications. 2016; 30 (1): 138-142.
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