# Nutrition Support with an L-arginine Based Oral Nutritional Supplement is Associated with Improvement in Non-Healing Wounds

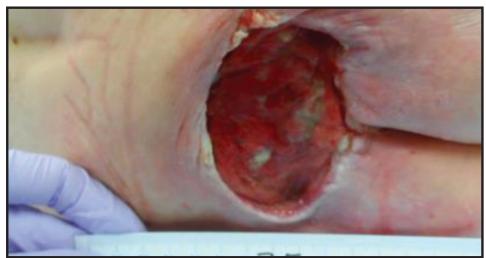
SACRAL ULCER



January 2014
Pre-Supplementation (6cm x 6.3cm x 1.5cm)



June 2014
During supplementation with L-arginine based oral supplement (4.7cm x 7.5cm x 1.4cm)



August 2014 Supplement temporarily discontinued (6cm x 7.4cm x 1.1cm)



May 2015 (2.1cm x 1.6cm x 0.2cm)

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### Introduction:

Nutrition support and correction of nutritional deficiencies is critical to wound healing. Arginine, a conditionally essential amino acid, serves as a substrate for protein synthesis, and is a precursor to nitric oxide (NO) and proline production—all of which play a role in wound healing.

## Case Summary (February 2014):

- 84-year old female originally presents to St Luke's The Woodlands Wound Care Clinic in August 2013
- S/P hip fx secondary to fall, DM, orthostatic hypotension
- Bed bound
- Unintentional weight loss
- Albumin: 2.3 g/dL
- Stage III Pressure Ulcer Sacrum with exposed bone (6cm x 6.3cm x 0.2cm)
- Deep tissue injury Right Calf (August 2014)

#### **Nutrition Intervention:**

- Documented poor oral intake—oral nutrition supplement initiated.
- Arginaid® (Nestlé Health Science, Florham Park, NJ), an L-arginine containing oral supplement, initiated December 2013.
- Patient ran out of L-arginine based supplement late June 2014 to late August 2014.
- L-arginine based supplement restarted end August 2014 due to worsening of sacral wound (6cm x 7.4 cm x 1.1 cm) and new deep tissue injury (right calf) and small lesions (feet and hands).

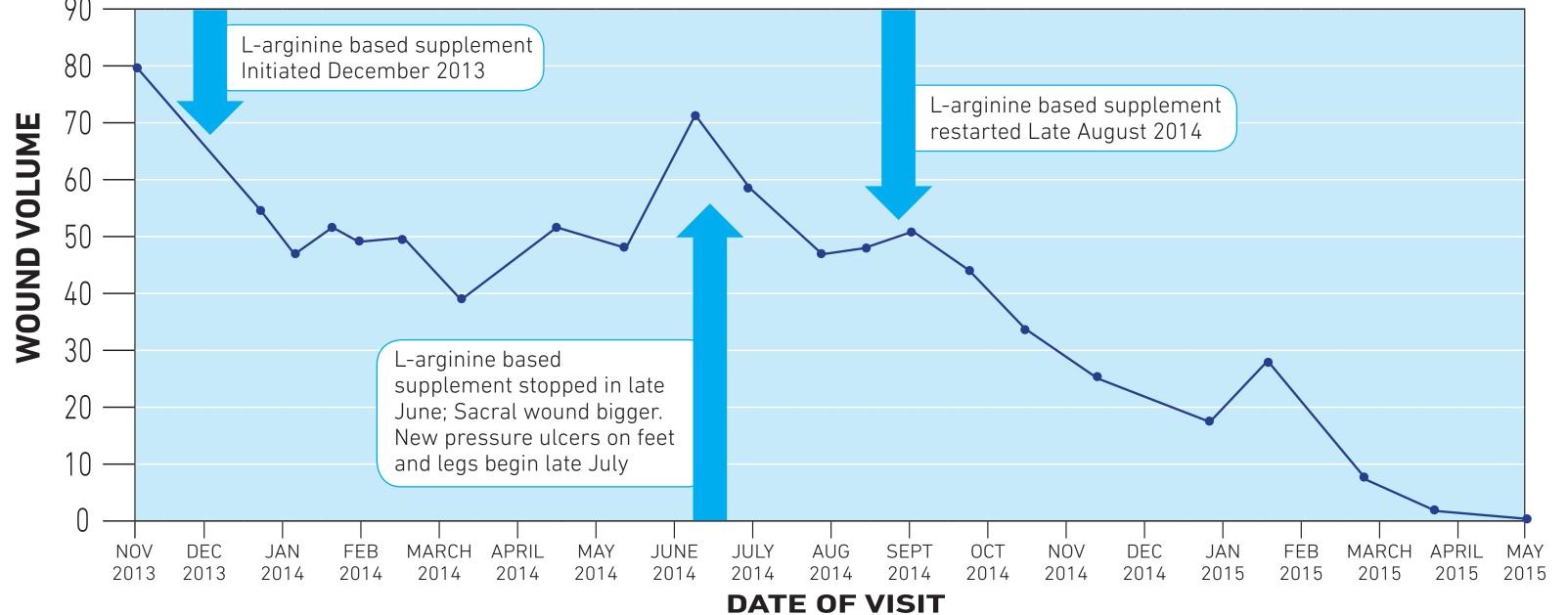
### **Outcomes:**

- Significantly improved sacral wound
- Healed leg wound

### **Conclusions:**

Nutrition support with an L-arginine containing oral supplement has a positive effect on wound healing with pressure ulcer and deep tissue wounds.

# **WOUND PROGRESSION**



#### RIGHT CALF ULCER



Late July 2014



Late August 2014



September 2014



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