# Dolphin™ Fluid Immersion Simulation® (FIS) System Case Study

## Carolinas Specialty Hospital, Charlotte, NC

### Facility Overview

Carolinas Specialty Hospital (CSH) is a 40-bed Long Term Acute Care Hospital specializing in medically complex patients requiring an average length of stay of 25 to 30 days. CSH operates within the 305-bed Mercy Hospital, established in 1906 by the Sisters of Mercy, located in the heart of Charlotte's historic Elizabeth district.

### Problem

Patient was a 90-year-old bedbound female, 105 pounds, with multiple co-morbidities, who routinely refused repositioning in bed and physical therapy. Admission assessment uncovered multiple Stage III pressure ulcers over the sacrum and buttocks. She failed to respond to traditional wound therapy alone, and her health began to deteriorate significantly.

### Intervention

The hospital's standard mattress was replaced by the Dolphin FIS System, with enzymatic debridement to the ischial ulcer and moist wound healing treatment to the other wounds initiated.

### Outcomes

Wound progress and healing data was collected for a total of 19 days of therapy while the patient was in the facility:

- Sacral Stage III pressure ulcer area decreased by 20% and volume achieved 68% healing over the course of therapy.
- Right lateral buttock Stage III pressure ulcer area and volume decreased by 58% during therapy.
- Right ischial pressure ulcer, which on day 1 was completely covered with eschar and unstageable, evolved over the course of therapy as enzymatic debridement and effective pressure redistribution with the Dolphin FIS were achieved.
  - As necrotic tissue was removed from the wound bed, the wound was ultimately revealed to be a Stage III pressure ulcer.
  - By day 5 of the concurrent therapy, 40 – 50% granulation tissue was present in the wound bed, with 70 – 80% granulation tissue present at the end of therapy.
- During the course of therapy, the patient became more interactive with facility staff, and began to participate in her treatment protocols. She was quoted as saying, "I love my Dolphin!"

### Conclusion

Carolinas Specialty Hospital revised their treatment algorithms to incorporate the Dolphin FIS System for all Stage III and Stage IV wounds. Dolphin FIS is also the preferred therapy for patients at risk for skin breakdown.

### Staff Evaluation

"I was frustrated with the progress we could offer our patients. The lack of new, meaningful technologies limited my ability to significantly impact their wound care. I was seriously considering leaving the wound care area. We agreed to trial the Dolphin FIS technology and for the first time in a very long time I could see real improvement in the wound care of my patients. Dolphin really invigorated my passion for treating wounds."

Jan Plyler, RN, WCC

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