**PURPOSE**

Total Contact Casting (TCC) is accepted as the Gold Standard in the treatment of Diabetic Foot Ulcers (DFUs). Evidence suggests that three factors impact patient compliance with basic wound care: complexity, cognitive effort, and the compensation system. The medical and economic factors that DFUs affect 2.5-10.7% of all patients with diabetes which frequently result in amputations. Off-loading to redistribute pressure is a basic principle in healing chronic wounds of the foot including diabetic and neuropathic foot wounds. Using a TCC System is a unique roll-on TCC System* – an easier and quicker sock roll technique casting system. The simplicity and efficacy of the TCC System provided wound care practitioners with the option to implement the gold standard for off-loading of diabetic foot ulcers more effectively within their practice.

**METHODOLOGY**

The wounds were treated according to the protocol as prescribed by the clinicians: including antibiotic and dressing changes. The patients not only had some of the wounds on their plantar surface but some were also on the dorsum of their foot. We used moist wound care, debrided non-viable tissue from the wound and adjacent areas and applied a new cast every week. The TCC System was applied in the clinic to each patient. After the initial application, patients returned each week, or as instructed, for dressing protocol followed for 4 to 6 weeks. We removed the bandage, re-dressed the wound and have a new cast applied.

**RESULTS**

In evaluating the outcomes, it is evident that using TCC has a direct effect on wound healing to include a significant impact on total days to heal. The TCC System provided notable outcomes with an average healing time of 22 days with healing times ranging from 8 to 55 days. The simplicity and efficacy of the TCC System provided wound care practitioners with the option to implement the gold standard for off-loading of diabetic foot wounds more effectively within their practice.

**REFERENCES**

1. Kruse I, Edelman, Clinical Diabetes, April 2006 vol. 24 no. 2 91-93. 2. Fife CE, Off-Loading the Diabetic Foot Ulcer with Total Contact Casting: Using a TCC System and an Average Healing Time of 55 Days. The simplicity and efficacy of the TCC System provided wound care practitioners with the option to implement the gold standard for off-loading of diabetic foot wounds more effectively within their practice.

**CASE 1**

This case involved a 48 y/o male with history of type 2 diabetes mellitus for 10 years. He had been following his 12 months wearing a TCC on the plantar surface of his right foot. He had innocuous foot complaint and had recently placed his feet on an elevated platform and to a new cast to be made. He had wound care of the common area and typically foot care every 4 weeks. He remained employed and participated in swimming and hiking. He had almost complete closure of the ulcer by day 30 with a cast.

**CASE 2**

This case involved a 46 y/o male with non-healing DFU on left hallux for 5 months. Patient had been prescribed a RCW but it caused a hemorrhagic bulla lateral to the 5th left MTP joint. In 2 weeks the wound was almost completely closed. He was re-casted for a week and then remained out of a cast. He had wound care at the community clinic and typically foot care twice per week. He remained employed and participated in swimming and hiking. He had almost complete closure of the ulcer by day 30 with a cast.

**CASE 3**

This case involved a 65 y/o woman with a non-healing DFU on left hallux for 5 months. Patient had been prescribed a RCW but it caused a hemorrhagic bulla lateral to the 5th left MTP joint. In 2 weeks the wound was almost completely closed. He was re-casted for a week and then remained out of a cast. He had wound care at the community clinic and typically foot care twice per week. He remained employed and participated in swimming and hiking. He had almost complete closure of the ulcer by day 30 with a cast.

**CASE 4**

This case involved a male with DFU on right MTP. He had wound care of the ulcer was closed. The wound site was placed in the TCC System. He was sent to a chiropodist to be fitted with appropriate footwear and foot orthotics.

**CASE 5**

This case involved a 50 y/o male with type 1 diabetes mellitus. The patient wound was located on the right great metatarsal head. The wound had been present for 6 months with minimal improvement. We elected to try a TCC on the left ulcer of the foot. Prior to TCC being initiated, the wound measured 1.6cm x 2.0cm x 0.5cm. The wound was close to complete closure while less than 8 months after TCC was initiated, the wound measured 0.5cm x 0.6cm with a cast.

**CASE 6**

This case involved a 52 y/o male with type 2 diabetes mellitus and a recent BSI on his right leg. He was a Stage 1 and had been present for 4 weeks without significant improvement. It measured 1.5 cm x 5.0 cm and was shallow. He had almost complete closure in 1 week and the wound was closed by day 14. He was leaving the province for a month and decided further casting due to these complications we were unable to get pictures of the wound.