



**Service Priorities and Programmes**  
**Electronic Presentations**

**Convention ID:** 951

**Submitting author:** Miss SIU MING LAW

**Post title:** Nurse Consultant, Princess Margaret Hospital

**Retrospective Case Review on Use of Three-layer Tubular Bandage on Venous Leg Ulcers**

LAW SMS(1), CHAN MY(1), LEE HY(1)

(1) Wound and Stoma Care, Princess Margaret Hospital

**Keywords:**

Venous Leg Ulcer  
Compression Bandage  
Three-layer Tubular Bandage  
Wound Healing  
Compliance

**Introduction**

Compression therapy has been recognized as a gold standard of intervention to aid wound healing in venous leg ulcers and that venous ulcers healing rate was increased with compression bandages when compared with no compression. However, the use of high compression bandages depend on the knowledge and skill of nurses in applying compression bandage correctly and the compliance of patients. This is a retrospective case review on the effectiveness of 3-layer tubular bandage on venous leg ulcers in a Wound Care Clinic between January 2015 to December 2016.

**Objectives**

1. to observe the wound healing rate of patients with venous leg ulcers after application of 3-layer tubular bandage
2. to assess the compliance of patients when applying 3-layer tubular bandage

**Methodology**

All patients with confirmed venous leg ulcers and were not receiving any form of high compression therapy were recruited. Initial wound size and tissue status, duration of this venous ulcer, wound pain were recorded monthly for 16 weeks (4 months). After application of appropriate moist wound dressing, a cotton bandage was used to secure wound dressing. Three-layer tubular bandage were then applied from behind toes to (a) below knee, (b) calf and (c) ankle.

**Result**

A total of 14 patients received 3-layer tubular bandage of which 10 (71%) were male, 4 were female (29%).

Duration of ulcers ranged from 1 month to 15 years prior to the application of 3-layer tubular bandage.

Ulcer size ranged from 1.8cm<sup>2</sup> to 41.25cm<sup>2</sup>, with an average ulcer size of 14.1cm<sup>2</sup>. 4 out of 7 (57.1%) patients with ulcer less than one year had their wounds healed.

2 patients with ulcer 1-2 years with wound size improved 33.3% and 73.9% respectively.

5 patients with ulcer over 2 years of which there were 2 (40%) patients with wound size remained static, 2 (40%) patients with wound size improved 14.3% and 25% respectively, 1 patient (20%) had wound healed completely.

All patients compliant to the use of 3-layer tubular bandage throughout with wound pain improved.

The use of 3-layer tubular bandage is easy to apply by nurses after education.

Patient's compliance improved with evidence of some and complete wound healing in ulcers of two years duration.

It is worthwhile to further study on this 3-layer tubular bandage over a longer period of time.