

INTRODUCTION

- Some patients are at a higher risk of wound infection, which can be very costly to the patient and increase their length of stay in the hospital. Examples of high-risk factors are diabetes, poor circulation, high BMI, hypertension, smoking, advanced age. Instillation therapy has the potential to improve the outcomes of these patients, it has been shown in a substantial number of studies to be beneficial in increasing rates of healing and preventing the need for further surgery or implant removal.

- Negative Pressure Wound Therapy with Instillation and Dwell time (NPWTid) is a new wound care technology that is available widely. NPWTid combines traditional negative pressure wound therapy with intermittent instillation of a wound-cleansing solution to enhance the management of complex and infected wounds. The new technology has been accepted for use by global wound care specialists, incorporating recent evidence and clinical experience.
- A study of 10 patients with complex wounds was conducted in Hospital Kuala Lumpur Wound Care Clinic with details in Chart 1.

Chart 1 - DUO Negative Pressure Therapy Instillation and Dwell time

Patient ID	Types of Wound	Medical History
Patient 1	Pressure Injury Grade 3	HPT. Alleged MVA with closed Right midshaft femur fracture, Lower limb DVT, Delirium 2° Sepsis
Patient 2	Pressure Injury Grade 3	Resolved bilateral lower limb cellulitis. COPD, Recent MI
Patient 3	Pressure Injury Grade 3	DM. Post Laparotomy staging and TAHBSO
Patient 4	Pressure Injury Grade 4 with Exposed Bone	ESRF on HD 1,3,5, HPT Urgency
Patient 5	Infected Right Leg AKA Stump	DM. HPT. TAHBSO
Patient 6	Infected Endometrioma	Severe Acute Relapse MI. Likely Aspiration Pneumonia
Patient 7	Laparotomy Wound	Right ACA Infarct. HAI
Patient 8	Post Total Abdominal Hysterectomy and Bilateral Salpingo-Oophorectomy	DM. HPT
Patient 9	Infected urocheal cyst	Morbid Obesity, Surgical Hx: h/o MVA in 2018 with sustained polytrauma
Patient 10	Burst Abdomen with SSI	NKMI. Abdominal wound post bilateral internal iliac artery angiogram and uterine artery embolism

STUDY OBJECTIVES

- The objective of this study is to evaluate the effectiveness of using the DUO device in a high-risk population of patients.
- The skin and wound will be photographed and assessed, along with the patient's comfort with the device, and the ease of application and removal of the device

METHODOLOGY

- The DUO NPWTid device will be used with installation / the same fluid should be used for all patients.
- Peri-skin should be checked prior to application of dressing.
- It is recommended that the pump should be placed on continuous mode.
- Pump should be charged every 10 hour or as needed.
- The dressing will be connected to the pump with the luer lock, and the pump will be turned on to continuous instillation mode.

- The dressing will take a few minutes to become hardened, once the seal is achieved. The film strips can be used around the outer edge of the dressing for extra security, if desired.

RESULTS

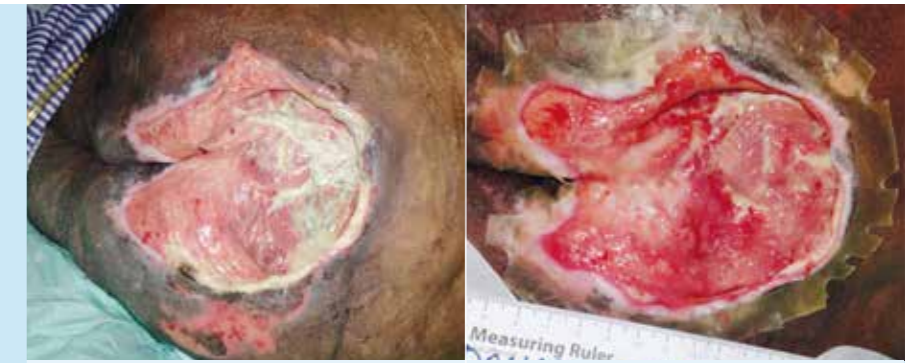
- All 10 patients responded well to DUO Negative Pressure Wound Therapy Installation and Dwell time within the 2nd to 3rd cycle of treatment.

CONCLUSION

- DUO NPWT instillation and dwell time proves to be effective in clearing infection and granulating the wound.
- The superiority of DUO is that it has high volumetric accuracy for instillation +-5% accurately delivering liquid to irrigate the wound and clear the infection in a timely manner. It is user friendly with easy touch screen interface and comes at a more affordable cost.

82 Years Old Male

- Medical Hx: Resolved bilateral lower limb cellulitis, COPD, recent MI
- Current Diagnosis: Pressure injury stage III



19.12.2023

After 3 cycle of NPWT id 19.1.2024

36 Years Old Male

- Medical Hx: Morbid Obesity, Surgical Hx: h/o MVA in 2018 with sustained polytrauma
- Current Diagnosis: Infected Right Leg AKA Stump



18.4.2024

After 3 cycle of NPWT id 23.5.2024

48 Years Old Female

- Medical Hx: Diabetic Mellitus, done Post Laparotomy staging and TAHBSO on 6/12/2023
- Current Diagnosis: Burst abdomen with SSI



27.12.2023

After 2 cycle of NPWT id 9.1.2024

42 Years Old Female

- Medical Hx: DM on OHA, HPT on medications
- Current Diagnosis: Post Total Abdominal Hysterectomy and Bilateral Salpingo-Oophorectomy Post op Day 10 Exploratory Laparotomy wash out, bladder repair done with RPG with SPC insertion



5.2.2024

After 2 cycle of NPWT id 19.2.2024

32 Years Old Male

- Medical hx: No known medical illness
- Surgical Hx: Abdominal wound post bilateral internal iliac artery angiogram and uterine artery embolism
- Recent Diagnosis: Infected Endometrioma



2.8.2024

After 2 cycle of NPWT id 13.8.2024



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