

# TERRAQUANT

## Case Studies, Nursing Home 'A'.

**A report on the use of TerraQuant for wound care in the Nursing Home  
from 9 April, 2004 to 16 June, 2004.**

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Nursing Home 'A'.**

Privacy Statement: Nursing Home 'A', which is a high care residential facility in Victoria, Australia, has granted Nutech Health permission to publish this material. The name of Nursing Home 'A' can be made available only on written request, with the enquirer's details concurrently notified to Nursing Home 'A' Director of Nursing.

### **INTRODUCTION**

**TerraQuant** is a medical device, which combines Low Level Laser Therapy (Class 1M), Infrared, Red Light and Static Magnetic Fields. Nutech Pty Ltd distributes TerraQuant in Australia. TerraQuant is TGA (Therapeutic Goods Administration) approved in Australia as a Medical Device Class IIa product (TGA AustL 94821) and has European Community approval (CE 0344).

**Nursing Home 'A'** is a high care, aged care facility with 65 residents. TerraQuant has been used primarily for wound care of patients in the dementia unit of the facility. Indeed, these are the patients with the highest risk of wounds through incidents resulting from more challenging behaviour than non-demented patients. Most of these residents have very frail skins. More often than not these patients will not tolerate dressings for long before pulling them off, or will present some difficulties in keeping the resident stable and still while renewing the dressings.

### **General comments and report from the Director of Nursing ("DON") and other nursing staff.**

DON: The feedback from the nursing staff is very positive because they can see good results over a short term. They feel they can contribute better towards the quality of life of their residents.

DON: Although we did not trial the TerraQuant on residents as a form of pain relief, staff used the TerraQuant on themselves to treat painful conditions, and successfully resolve aches and pains (e.g. knee).

NURSING STAFF: You can see very quick results. Wounds heal much faster than we would have expected. It is less invasive. Even with demented patients, you can see they are less disturbed during the re-dressings because we do not have to undo the inner layer of a dressing (under the LYOFoAM) to give the treatment. The machine is very user friendly, it can sit on the bed or on a small bedside table, it is easy to carry and it does not take long to unpack or to store.

DON: On the costing side, it is very cost-effective. Our facility has high care category patients, therefore we are unable to take advantage of higher claims in our RCS (Resident Classification Scale) under Technical and Nursing Procedures. However the long-term benefits are the reduction in costs of dressing products and savings of nursing time taken to dress wounds due to the wounds healing in less time. We have used TerraQuant primarily for wound care of patients in the dementia unit of the facility because there is a higher incidence of wounds resulting from more challenging behaviours than non-demented residents and it is usually more difficult to have them keep their dressings intact. There is no doubt that using TerraQuant takes time (10 to 15 minutes per day). The whole dressing needs to be changed less often as the LLLT was used through the dressings so the inner dressing layers

could be left in situ (e.g. Intrasite Gel, Solugel and Lyofoam). We can now use one or two dressing packs per week per wound instead of one per day (\$0.70 each). Bandages were only changed when wounds were redressed or PRN (requested by the resident) rather than daily (\$1.00 each).

There are also savings on the daily use of bandages, dressings, opening of clean packs, Solugel, Intrasite Gel, Saline.

TerraQuant is also being used on skin that is at risk of breaking down, with significant improvement noted as we have maintained the skin integrity, saving what could have been a costly and lengthy procedure in wound management.

We have noticed that we are not ordering as many dressing materials. As an example we used to purchase two large boxes and one small box of Interpose per fortnight (almost \$100.00). We have purchased only a small one in the last month (\$15.00). It enables us to be more flexible with our purchases in our dressing budget.

## CASE STUDIES

### Resident #1

An 80 year old lady with a Left Hip pressure ulcer 3cm x 3cm x 1cm which had been deteriorating rapidly for two weeks. The ulcer was sloughy, and necrotic. The resident is very demented and reacts strongly when dressings are redressed (pushes staff away).

TerraQuant initiated daily on 14 April 2004.

28 April	60% sloughy, 30% necrotic, 10% granulation.
30 April	50% sloughy, 50% granulation, marked reduction in odour.
15 May	2cm x 3cm, depth 0.5 cm at sloughy end of wound.
2 June	Wound clean and reduced in size 2cm x 2cm, sinus cavity patent.
7 June	Wound closing. 1cm opening. Gauze wick in place to keep sinus patent. Patient has no reaction or complaints when dressing changed.



**14 April 2004**

**Prior to treatment with  
TerraQuant**



**30 April 2004**



**6 May 2004**  
**31 May 2004**



**Wick inserted into small sinus.**

**9 June 2004**

**WICK TO KEEP  
SINUS PATENT'**

## **Resident # 2**

This resident is an 81-year-old woman with multiple systems failure with very frail and thin skin. Fall on 19 May 2004 with multiple skin tears on the L hand, R & L knees and R ankle and 7cm long laceration to the scalp. The skin tear to the knees had no skin left to put a flap back into place. The treatment consisted of an initial dressing on the scalp and the other skin tears. Steristrips were applied, and dressed with Solugel, Interpose and Mefix. TerraQuant was used through the dressing on the scalp and knees for seven days, one 10-minute session daily.

All tears healed in 5 to 7 days. "We would have expected all tears to take at least 3 to 4 weeks to heal. One advantage was to be able to give the LLLT treatments through the dressings without having to change them daily and without disturbing the patient."

## **Resident # 3**

This resident is an 86-year-old lady with very frail and thin skin who keeps rubbing her two feet/ankles together. As a consequence, her Left Foot displayed abrasions that, if she had kept rubbing, were at risk of never healing.

TerraQuant treatments were given daily for 7 days. The abrasions healed. The resident ceased rubbing her feet together. "We would have expected to need 3 to 4 weeks of wound management and protective dressing necessary to overcome her abrasions."

## **Resident # 4**

This resident is a very frail 86-year-old woman with multiple diseases. She is currently on various medications including Prednisolone, she also has poor dietary intake and is supplemented with high calorie and protein drink. She developed a leg haematoma (12cm x 3cm), from locking and rubbing her legs together, which was at risk of breaking down.

TerraQuant treatments were given daily for 7 days. Healing was achieved. "We would have expected the haematoma to break down and due to her compromised health status we would have expected any breakdown of the skin integrity would take an extended period to heal".