

November 2015

APEX Domus 3 Clinical Cases

MATIA
INSTITUTO GERONTOLÓGICO

APEX
Care for a Healthy Life

Clinical Partner



The Matia Foundation

The Matia Foundation is a non-profit organisation with over 130 years' experience in the care of the elderly, employing about 1,000 highly-trained staff.

The Matia Foundation conducts research into the clinical needs of older patients, this leads to their R&D facility being able to come up with new innovations which can be disseminated into society to benefit patient care.

Developer



Apex Medical

Apex Medical's head office is in the Taipei and since 1990 Apex has manufactured medical equipment in the following categories:

- Medical devices for the prevention of pressure ulcers.
- Respiratory therapy devices.
- Pain therapies.

Apex Medical's mission is to improve people's quality of life by supplying them high quality equipment. To achieve this aim, Apex Medical plays an active role in institutions such as the Spanish Federation of Orthotists and Prosthetists, FEDOP, or GNEAUPP (the Spanish National Pressure Ulcer Group), and participates in many national and international conferences.

Objective

Pressure ulcers or bedsores are wounds that occur over bony protuberances (for example heels, sacrum, head), as a result of pressure, friction and shear effect. The aim of this study is to evaluate the effectiveness of the Special Pressure-Management Surface (SEMP in Spanish) DOMUS 3, in the prevention and treatment of Pressure Ulcers.



Domus 3

Domus is Apex's pressure-alternating range of SEMP which is ideal for use in community care settings. The Domus 3 is an entry level system ideal for the prevention and cure of less severe pressure ulcers. It is a manually adjusting overlay system, designed to be used in conjunction with a foam mattress. The system has an alarm and static function which will accommodate patient weights of up to 180kg.

Methodology

Each bed was tested by 10 patients with the following profile :

Domus 3		
Mean Age	71,7 YEARS	
Sex	30% MEN	70% WOMEN
Patients with medium and high risk (Norton) but without PU's	6	
With PU's	4	

The evolution of the PU's in these patients was observed and recorded over 4 weeks, using the SEMP Domus 3 and applying protocols for the prevention and treatment of PU's laid down by the Matia Foundation.

Cases of treatment of pressure ulcers

Case 1 Treatment with Domus 3 of a convalescent patient with Grade I PU on their heel.

Background :

91-year-old patient with arthritis and osteomyelitis in the knee and femur because of e-coli

BMI : 21.5

Hours spent in bed : 22 hours.

Hours spent in a chair : 2 hours.

Location of pressure ulcer : High risk (12 on the Norton scale)
Grade I ulcers on the left heel (5x5 cm)

Treatment protocol :

Use of Domus 3 surface.

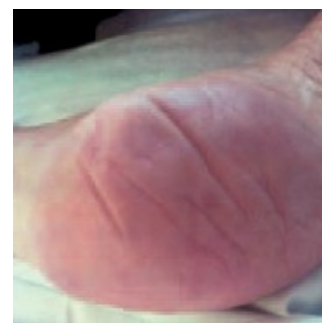
Application of hyperoxygenated fatty acids on the pressure points.

Lying the patient on their side and change of position every 3 hours.
Mepentol.

Use of a heel support.

Results :

After applying the protocol for 4 weeks, the ulcers on the heel had diminished to 3x3 cm.



1st week



4th week

Case 2 Treatment with Domus 3 of a patient with Grade III PU on the buttock.

Background :

75-year-old patient with dilated cardiomyopathy, type 2 diabetes, hypercholesterolemia, COPD and hyperuricemia.

BMI : 31.9

Hours spent in bed : 20 hours.

Hours spent in a chair : 4 hours.

Location of pressure ulcer : High risk (12 on the Norton scale)
Grade III ulcers on the right buttock (4x1.5 cm)

Treatment protocol :

Use of Domus 3 surface.

Application of hyperoxygenated fatty acids on the pressure points.

Lying the patient on their side and change of position every 3 hours.
Mepentol.

Results :

After applying the protocol for 4 weeks, the ulcer had gone from Grade III (4cmx1.5 cm) to Grade II (1cmx0.8 cm) and was no longer weeping.



1st week



4th week

Case 3 Treatment with Domus 3 of a patient with vascular insufficiency with Grade I PU on their heel.

Background :

96-year-old patient with left hemiparesis and severe vascular insufficiency

BMI : 40.7

Location of pressure ulcer : High risk (Norton scale)

Grade I ulcers on the left heel (5x5 cm)

Treatment protocol :

Use of Domus 3 surface.

Application of hyperoxygenated fatty acids on the pressure points.

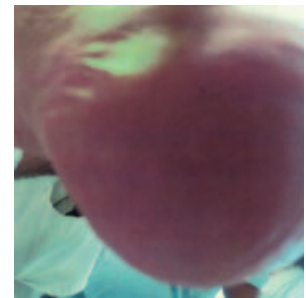
Lying the patient on their side and change of position every 3 hours.

Mepentol.

Use of a heel support.

Results :

After applying the protocol for 4 weeks, the ulcers on the heel had diminished to 5x4.5 cm.



1st week



4th week

Case 4 Treatment with Domus 3 of a patient with Grade III PU on the sacrum.

Background :

81-year-old patient with osteoarthritis and kidney failure.

BMI : 33.6

Hours spent in bed : 14 hours.

Hours spent in a chair : 10 hours. Walks once in the evening with a walking frame.

Location of pressure ulcer : High risk (12 on the Norton scale)

Grade III ulcers on the sacrum (5x4 cm)

Treatment protocol :

Use of Domus 3 surface.

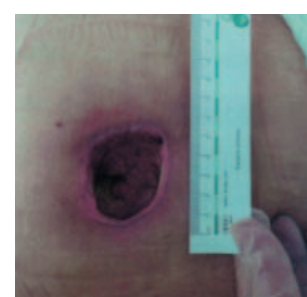
Metronizadol gel 2%, surgical debridement.

Results :

After applying the protocol for 4 weeks, the ulcer had diminished to 4x4 cm.



1th week



4th week

Cases of prevention of pressure ulcers

Case 5 Prevention using Domus 3 in patient with multiple sclerosis. High risk.

Background :

52-year-old patient with multiple sclerosis, paraplegia, dysphagia and double incontinence.

BMI : 19

Hours spent in bed : 18 hours.

Hours spent in a chair : 3 hours in the morning and 3 in the afternoon.

Location of pressure ulcer : None, patient at high risk (12 on the Norton scale)

Treatment protocol :

Use of Domus 3 surface.

Application of hyperoxygenated fatty acids on the pressure points.

Lying the patient on their side and change of position every 3 hours.

Results :

By applying the prevention protocol for 4 weeks, the appearance of pressure ulcers was prevented.

Case 6 Prevention using Domus 3 in patient with multiple sclerosis. High risk.

Background :

56-year-old patient with multiple sclerosis, tetraplegia, dysphagia and double incontinence.

BMI : 31

Hours spent in bed : 18 hours.

Hours spent in a chair : 3 hours in the morning and 3 in the afternoon.

Location of pressure ulcer: None, patient at high risk (12 on the Norton scale).

Treatment protocol :

Use of Domus 3 surface.

Application of hyperoxygenated fatty acids on the pressure points.

Lying the patient on their side and change of position every 3 hours.

Results :

By applying the prevention protocol for 4 weeks, the appearance of pressure ulcers was prevented.

Case 7 Prevention using Domus 3 in patient with multiple sclerosis. High risk.

Background :

93-year-old patient with intestinal infection because of clostridium and intestinovesical fistulae.

BMI : 23.4

Hours spent in bed : 24 hours.

Location of pressure ulcer's : High risk (10 on the Norton scale).
Multiple moisture lesions in the sacrum-buttocks area.

Treatment protocol :

Use of Domus 3 surface.

Application of hyperoxygenated fatty acids on the pressure points.

Lying the patient on their side and change of position every 3 hours.

Results :

By applying the prevention protocol for 4 weeks, the appearance of pressure ulcers was prevented.

Total cure of the moisture lesion.

Case 8 Prevention using Domus 3 in patient with multiple sclerosis. Medium risk.

Background :

58-year-old patient with multiple sclerosis, neurogenic bladder and mild dysphagia.

BMI : 26.7

Hours spent in bed : 16 hours.

Hours spent in a chair : 4 hours in the morning and 4 in the afternoon.

Location of the pressure ulcer : None, patient at medium risk (13 on the Norton scale)

Treatment protocol :

Use of Domus 3 surface.

Application of hyperoxygenated fatty acids on the pressure points.

Lying the patient on their side and change of position every 3 hours.

Results :

By applying the prevention protocol for 4 weeks, the appearance of pressure ulcers was prevented.

Case 9 Prevention using Domus 3 in patient with pneumococcal meningitis. Medium risk.

Background :

52-year-old patient with pneumococcal meningitis, tetraplegia and double incontinence.

BMI : 18.5

Hours spent in bed : 18 hours.

Hours spent in a chair : 3 hours in the morning and 3 in the afternoon.

Location of pressure ulcer : None, patient at medium risk (13 on the Norton scale)

Treatment protocol :

Use of Domus 3 surface.

Application of hyperoxygenated fatty acids on the pressure points.

Lying the patient on their side and change of position every 3 hours.

Results :

By applying the prevention protocol for 4 weeks, the appearance of pressure ulcers was prevented.

Case 10 Prevention using Domus 3 in patient with myelopathy. Medium risk.

Background :

63-year-old patient with myelopathy, spastic paraplegia and double incontinence.

Feeding by gastrostomy tube.

BMI : 19

Hours spent in bed : 17 hours.

Hours spent in a chair : 3 hours in the morning and 4 in the afternoon.

Location of pressure ulcers : None, patient at medium risk (13 on the Norton scale)

Treatment protocol :

Use of Domus 3 surface.

Application of hyperoxygenated fatty acids on the pressure points.

Lying the patient on their side and change of position every 3 hours.

Results :

By applying the prevention protocol for 4 weeks, the appearance of pressure ulcers was prevented.