

An evaluation of pressure reducing hybrid mattress systems at Tallaght Hospital.

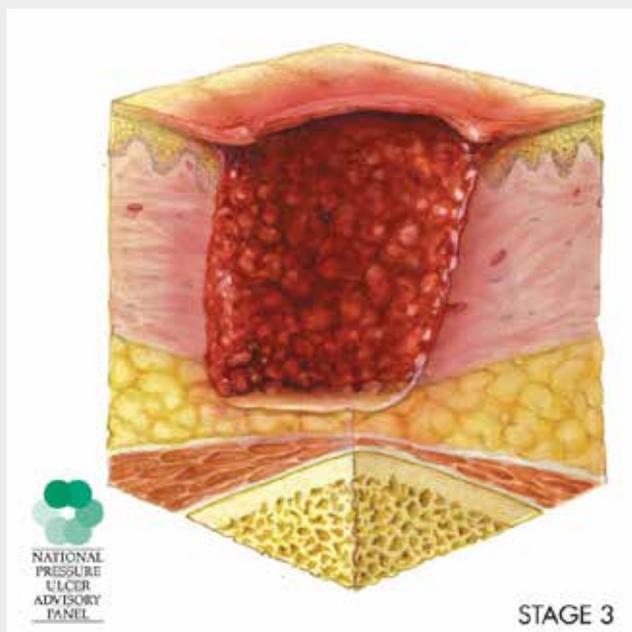
Introduction

Tallaght Hospital is a public, voluntary, university teaching hospital. Established in 1998 at a capital cost of £140m, the state of the art facility at Tallaght has 625 beds and provides care for adults, children and older people. The ethos of the hospital is to provide the best evidenced based care for patients, and are always looking at ways to improve patient care. The hospital is very active in its work to prevent and manage pressure ulcers.

A pressure ulcer can be described as an area of localised damage to the skin and underlying tissue caused by pressure or shear or a combination of these (European Pressure Ulcer Advisory Panel, EPUAP, 2014). Pressure ulcers range in severity from skin discolouration to severe open wounds where the muscle and bone are visible.

forces from pressure or pressure with a combination of shear cause stresses and strains on the tissue. These stresses and strains occlude circulation, thus reducing oxygen and other vital nutrients reaching the tissue. Lymphatic drainage is also thought to be impaired, causing a build of metabolic waste.

People who are immobile are at risk of developing pressure ulcers. Immobility can be impacted by other factors such as obesity, malnutrition, incontinence, reduced circulation or a history of previous tissue damage.



Pressure ulcers develop as a response to external forces causing localised ischemia (a restriction in blood supply). It is generally believed that external



Recommendations for the prevention of pressure ulcers include methods for identification of 'At Risk' patients and then implementing appropriate preventive measures. Treatment of pressure ulcers include pressure redistribution along with nutrition and wound management.

When given the opportunity to trial a pressure reducing hybrid mattress system from Invacare, the clinical team at Tallaght Hospital were delighted to participate. The aim of the trial was to prevent or reduce the number of pressure ulcers in one ward in the hospital.

The plan

The ward chosen was a busy medical ward. On average 60% of the patients in this particular ward need total nursing care, and at least 70 % of them requiring a pressure redistributing mattresses. It was decided to implement the trial and all the mattresses in use on the ward would be removed and replaced with the Soffform Premier Active 2 hybrid mattress system. A total of 31 mattresses were replaced. Education on the mattresses was provided for all Nurses and Health Care assistants on the ward by the supplier.

Soffform Premier Active 2 hybrid mattress system

The Invacare Soffform Premier Active 2 is a hybrid mattress system. It has been designed to provide effective pressure reduction for patients considered to be at 'Very High Risk' of developing pressure ulcers. The mattress system consists of an upper surface of castellated **high specification foam**, with an inner system of alternating pressure air cells. The mattress is used with an optional pump, that can be deployed should the patient's pressure ulcer risk increase, and for patients with an existing pressure ulcer who require therapeutic intervention in the form of alternating pressure.

EPUAP recommend using a high specification reactive foam mattress (EPUAP 2014)



Aims and objectives of the trial:

The objective of the trial was to evaluate the suitability of the Soffform Premier Active 2 in providing an effective solution for reducing the incidence of Pressure Ulcers and therefore provide a positive impact on patient outcomes. The mattress was also evaluated for ease of use to ensure full staff engagement.

Implementation:

Over two days all mattresses on the ward were replaced with the Invacare Premier Active 2. Education was provided on how to use the mattress for all nursing and health care staff.

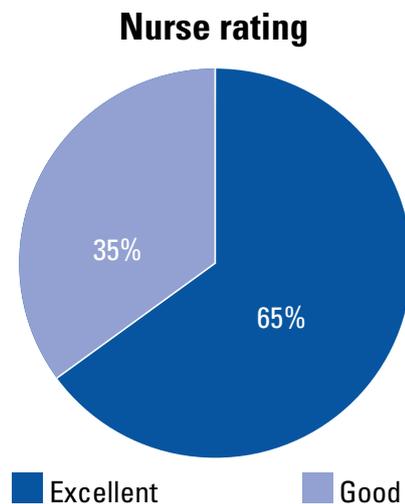
Evaluation:

The method used was an evaluation form in place on the ward, for the nurses to complete in private so they could give an unbiased opinion (See Appendix A for copy of evaluation form). The forms were collected in a marked box. The evaluation forms were then collated by the Tissue Viability Clinical Nurse Specialist.

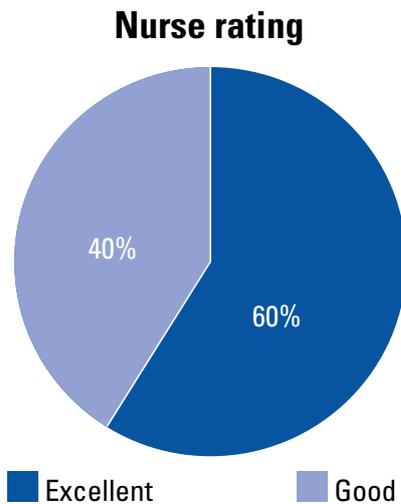
Preliminary findings

Staff feedback was very positive. The main findings were

1) The ability of the mattress to maintain skin integrity



2) The ability of the mattress to improve skin integrity



3) Patient comfort

- 70% of staff responded that their patients stated comfort and stability was excellent
- Ease of mobilisation/chair transfers is considered to be excellent by nursing staff
- Ease of repositioning is considered to be excellent by all nursing staff involved in the evaluation



4) CPR function

All Nurses rated the CPR function as excellent.

5) Moving and Handling

The nurses and health care assistants found the Invacare Premier Active 2 mattress easy to use, resulting in less need for lifting of patients and mattresses reducing the need for manual handling.

6) Set-up and on-going Ease of Use

- All respondents consider the Softform Premier Active 2 to be easy to install and use.
- 75% of Care staff rated that the quiet noise of the pump as excellent
- Almost all (95%) of Nurses rated as excellent the plug and play nature of the Softform Premier Active 2 in terms of set up

When patients required their mattresses to be upgraded all that was required was to attach a small light weight pump to the mattresses. This could be carried out without disturbing the patients or the need for a hoist to lift the patient. This had a big impact on manual handling for patients and their cares. Prior to using the Invacare Softform Premier Active 2 an immobile patient requiring their mattresses up graded would have to be hoisted off their mattress for a Dynamic Therapy Mattress to be placed underneath them instead.

It has also reduced the need to store mattresses while the Dynamic Therapy Mattress was in use.



7) Infection control

100% of staff rated the Softform Premier Active 2 with its unique SRT cover as excellent.



Designed to combat rigorous hospital cleaning procedures. Made from breathable, yet highly durable and highly chemical resistant polyurethane polymer, which makes it more resistant to abrasion and damage

Other general feedback from clinical staff involved with the trial:

- "I have found a big improvement in reported patient comfort"
- "Patients stated that the mattress was very comfortable"
- "Very convenient, if a patient needs to upgrade mattress just attach a pump"
- "Very happy with the mattress"

Conclusion

Following the deployment and subsequent feedback of the Invacare Soffform Premier Active 2 the overall findings were extremely positive. The patients found the surface to be very comfortable. Patients' skin integrity overall was excellent. The improvement in manual handling resulted in reducing the amount of time required to upgrade a mattresses by 20 minutes. This was achieved by negating the time required for two people to get a hoist to lift the patient, which in itself is a 5 minutes job for one person. Implications for delays in instigating therapy can be catastrophic, so accelerating the time to install an alternating support surface is now contributing to improved patient outcomes.

*This information has been prepared by Invacare and in conjunction with **The Adelaide and Meath Hospital Dublin.***

References:

- National Pressure Ulcer Advisory Panel, European Pressure Ulcer Advisory Panel and Pan Pacific Pressure Injury Alliance. Prevention and Treatment of Pressure Ulcers: Clinical Practice Guideline. Emily Haesler (Ed.). Cambridge Media: Osborne Park, Western Australia; 2014.

For further information relating to this trial please contact Vincent Ward, Product Specialist, Invacare. Email: vward@invacare.com



Yes, you can.®



www.thinkpressurecare.com

Invacare Limited
Pencoed Technology Park - Pencoed -
Bridgend CF35 5AQ - United Kingdom
Tel: +44 1 656 776 222
Fax: +44 1656 776 220
E-mail: uk@invacare.com
Sales Order E-mail: ordersuk@invacare.com
www.invacare.co.uk

Invacare Ireland Ltd
Unit 5 - Seatown Business Campus
Seatown Road - SWORDS -
County Dublin - Ireland
Tel. +353 1 8107084 - Fax +353 1 8107085
Email: Ireland@invacare.com
www.invacare.ie



© 2015 Invacare International Sàrl. All rights reserved.

All information quoted is believed to be correct at time of print.

Invacare reserves the right to alter product specifications without prior consultation.

The reproduction or use of this work, or of any substantial part of this work, in any form or by any electronic, mechanical or other means, including photocopying, scanning and recording, and in any information storage and retrieval system, including electronic transmission, is forbidden without the prior written permission of Invacare International Sàrl.

Invacare Soffform Premier Active 2 Evaluation in a Hospital Setting - UK - 05/2015