



Supporting innovation across NHS Scotland



An innovative solution for weighing immobile patients Patient Transfer Scale (PTS)

With over 160,000 staff working in health and social care across Scotland it is a rich resource of ideas and innovations. However translating innovative products from original idea to widespread adoption requires a range of skills, many of which are not readily available within each Health Board; skills such as assessing ideas, product development and prototypes, protecting intellectual property, raising finance, building a business, sales and marketing.

Authors:
Gillian Taylor, Inventor; Sheena MacCormick, Innovation Manager, SHIL

“The only way to weigh an immobile patient was to use a hoist scale or a bed scale, but both were time consuming, and could be cumbersome. I realised that if a patient is weighed as they are transferred to a bed, using a transfer board, an immediate weight reading could be obtained and used to accurately administer medication.”

Gillian Taylor, Inventor of the Patient Transfer Scale



AIMS AND OBJECTIVES

Gillian Taylor, an Emergency Department nurse in NHS Lanarkshire came up with an innovative solution designed to weigh immobile patients faster and more easily than current solutions.

Accurate weight reading is important when drug dosages need to be administered quickly for conditions like stroke and sepsis. The aim was to develop a product that:

- Allows patient transfer and weight measurement to be completed in tandem
- Weighs to the level of accuracy required for scales being used in a medical setting (NAWI Class III)
- Is portable and slim in line with current Patient Transfer Boards.

METHODOLOGY

As the only organisation set up to work with NHS Scotland on commercialisation activity, SHIL worked with Gillian to:

- Evaluate idea
- Secure funding
- Develop prototype
- Protect the IP
- License the IP (to commercial partner Marsden).



OUTCOMES AND RESULTS

The Patient Transfer Scale passed regulatory approvals and will launch towards the end of 2018. It is the first scale of its type in the world, accelerating the speed at which time critical medications can be administered. This offers significant benefit to patients and staff:

- **Simple to use** - working in same way as a traditional patient transfer method minimises training needs
- **Proven effective** - the scale is NAWI Class III Approved, Class I Medical Devices Directive Approved, and tested by multi-disciplinary teams in 30+ hospitals
- **Portable** - the scale can be taken to the patient by a single member of staff, minimising disruption and saving time
- **Competitive** –comparable pricing to other products on the market.

“Getting an accurate weight quickly can help save a life. We believe that the Patient Transfer Scale will have huge benefits for patient outcomes. We are grateful for the support we received from the Chief Scientist Office Scotland, Scottish Health Innovations Limited and Marsden. We are very proud of Gillian and of the part we played to help turn her idea into a tangible product. Hopefully this will inspire other NHS staff to identify opportunities and make them aware that support is available to make them a reality.”

Raymond Hamill, Senior Research & Development Manager, NHS Lanarkshire

CONCLUSION

The PTS is an exemplar of front line health professionals identifying new, more efficient ways to improve patient care. Translating innovative products from original idea to widespread adoption requires a range of skills, and through close collaboration with the inventor, NHS Lanarkshire and Marsden, the PTS has been developed from an idea into a viable, commercial product ready for launch later this year. It is testament to the rich resource of ideas and innovations across NHS Scotland.

References

The Scottish Government, Achieving Sustainable Quality in Scotland’s Healthcare: A 2020 Vision, gov.scot (2012), <http://www.gov.scot/Topics/Health/Policy/2020-Vision/Strategic-Narrative>
Health and Social Care Delivery Plan, Scottish Government (December 2016) <http://www.gov.scot/Resource/0051/00511950.pdf>
www.shil.co.uk www.marsdens.co.uk