

# Introducing a Screening Tool for Patients Attending a Photopheresis Unit: The Rotherham Outpatient Pressure Sore Screening Tool (ROST)

C.Rushton, R.Goodgrove, L.Robertson, T.Taylor, A.Alfred, P.Taylor

*The Rotherham NHS Foundation Trust (UK)*

## Introduction

As demand for Extracorporeal Photopheresis (ECP) increases and a range of conditions are treated it is important to establish which patients are at risk of developing pressure sores.

The patient groups presenting for ECP are likely to have a higher risk of developing pressure sores due to reduced skin integrity, long term steroid use and immunosuppressive usage, reduced mobility, pain, low haemoglobin/platelets and malnutrition.

## AIMS AND OBJECTIVES

The aims and objectives were to identify patients at a higher risk of developing a pressure sore and to provide pressure relieving cushions to the patients at risk. However the methods currently available were not relevant to an out patient setting, where patients are in the unit for up to 3 hours sat in the same position. Therefore a new tool need to be developed and tested.

GOST Build/Weight for height	Score	Nutritional Risk Screening	Score	Continence	Score
Average	0	0	0	Complete or catheterised	0
Above average	1	1	1	Occasionally Incontinent	1
Obese	2	2+	2		
Below Average	3				
Gender/Age	Score	Mobility		Risk areas visual skin type	
Male	1	Fully mobile	0	Healthy	0
Female	2	Prone to shear & friction	1	Tissue Paper	1
14-49	1	Difficulty mobilising	2	Dry	1
50-64	2	Restricted	3	Oedematous	2
65-74	3			Clammy	3
75-80	4			Skin Wounds	4
81+	5			Pressure Ulcer	5
Neurological Deficit		Steroid Dose		Total Score=	
Diabetic- Tablet controlled	2	Low below 7.5mg	1		
Diabetic- Insulin controlled	4	Medium 7.5 - 40mg	2	10 to 20 at risk	
		High above 40mg	3	20+ complete trust paper work	

Figure 1 The Rotherham Outpatient Screening Tool (ROST)

## Results

65 treatments were included in the study. On 6 treatment occasions (9.2%) the nursing staff gave the patient a pressure relieving cushion before completing the ROST (Fig 3).

Of those 6 treatments, 4 (66% of those given cushions) scored 10 or above using the ROST.

The ROST indicated that 22 treatments of the total 65 treatments (33.8%) scored 10 or above (Fig 4) and only 4 (6.1%) of those treatments received a pressure relieving cushion prior to using the tool. This meant 18 treatments (27.6%) would not have received a pressure relieving cushion had it not been for the tool.

## Conclusion

The data collected showed that nursing staff's intuition and patient prompting highlighted a small portion of patients that would benefit from a pressure relieving cushion. However the ROST has highlighted even more patients that would benefit (Fig 5). Therefore to optimise patient care and prevent the risk of a pressure sore developing the ROST should be used as well as nursing intuition.

The patients currently attending the unit have no record of pressure sores. The tool highlights the patients at a higher risk; therefore by providing a cushion we reduce the risk of a pressure sore developing.

In addition to the tool, a wound assessment chart should be used to document any sore the patient may already have so this can be treated accordingly.

Prior ROST



■ Received a pressure relieving cushion  
■ Did not receive a pressure relieving cushion

Figure 3 Proportion of treatments in which patients received a pressure relieving cushion prior to the use of ROST

Post ROST



■ Score ≥10  
■ Score <10

Figure 4 Proportion of treatments in which patients had a ROST score of 10 or more and therefore received a pressure relieving cushion.

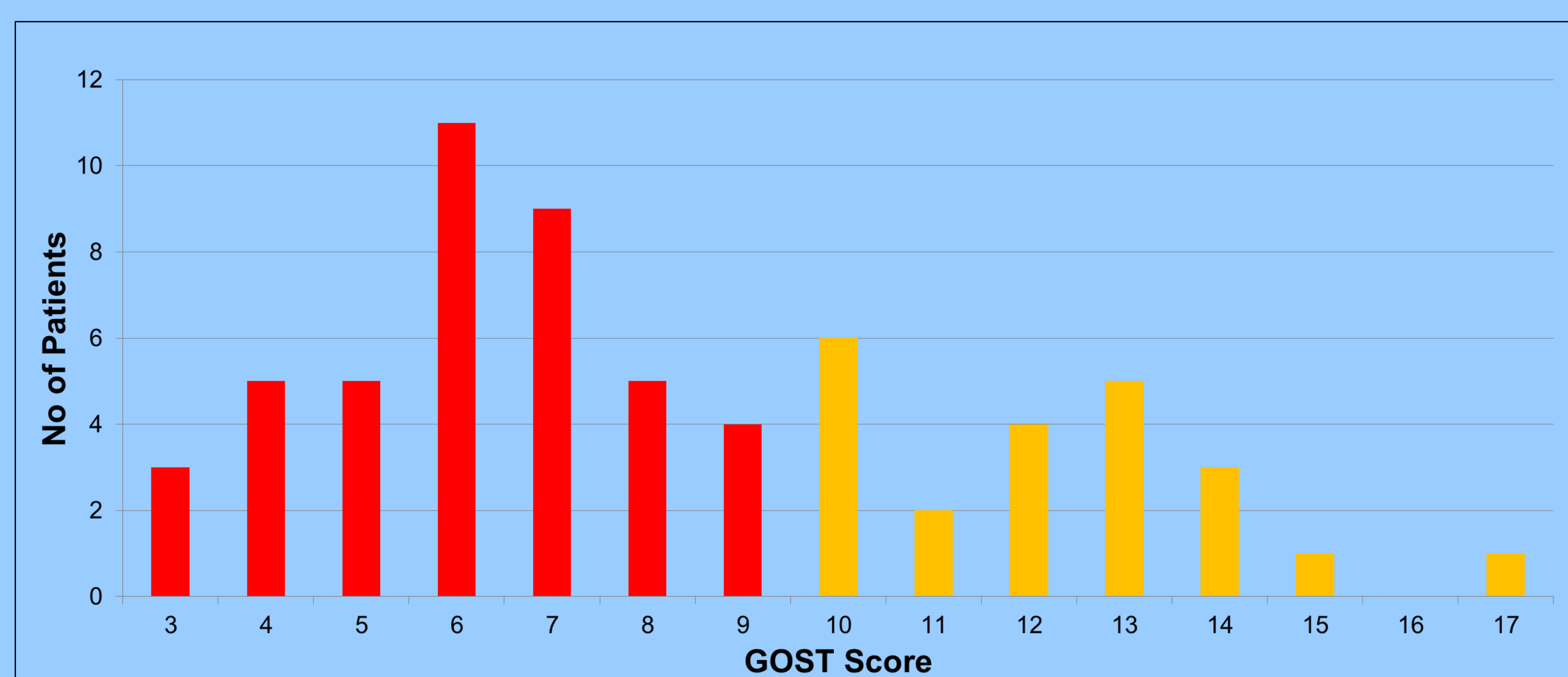


Figure 5 The number of patients with each ROST score, with those above the cut-off for receiving a pressure relieving cushion indicated in yellow.

## Method

A screening tool, Rotherham Outpatient Screening Tool (ROST) was produced (Fig 1). It was adapted from a combination of the Waterlow score and a modified MUST nutrition score (Fig 2). A ROST score of 10 or above indicated that the patient was at a higher risk of developing a pressure sore, therefore would require a pressure relieving cushion during treatment. A comparison study was undertaken to ensure its reliability and validity in practice. The ROST score was compared against nursing staff intuition and prompts from patients as to whether a patient required a pressure relieving cushion.

The comparison study ran for a four week period. Nursing staff gave a pressure relieving cushion to any patient who voiced that their sacrum felt sore or that they were uncomfortable sat for long periods and this was recorded. Then the nursing staff used the ROST to ascertain if they scored 10 or above, if they did a cushion was provided, if one had not been already and the results documented.

Nutritional Score Step 1	Score
Height (m) or Ulna length (cm) converted to Height (m)	
Weight (kg)	
BMI (kg/m <sup>2</sup> ) or BMI category	
BMI score	
Weight loss (kg)	
Weight loss score	
Overall Score	

Figure 2 The modified MUST Nutrition Score

## ACKNOWLEDGEMENTS

Thank you to the patients for participating.  
Thank you to Catriona Barker, Nick Matthews, Maggie Foster, Tracy Maher, Julie Ball, Janet Mayo, Cheryl Swift for their assistance.