

# Norton Pressure Ulcer Risk Scale

## Assessment Overview

### Assessment Area

**ICF Domain:**

Body Function

**Subcategory:**

Functions of the skin

**Subscales (domains):**

Physical condition, mental condition, activity, mobility, and incontinence

### You Will Need

**Length:**

5-10 minutes, 5 items

**Scoring:**

Scales are scored on a domain specific ordinal scale from 1 to 4. A summary score ranging from 5 – 20 is calculated. Higher scores equal better prognosis.

**Training:**

None, but pressure ulcer risk assessment experience is needed.

### Summary

The Norton Pressure Ulcer Risk Scale was the first pressure ulcer risk assessment developed and was intended for use with a geriatric hospital population. It is a clinician-administered scale and is commonly used in a variety of populations. However, it omits several items previously found to be important predictors of pressure ulcer development for people with SCI.

It considers five domains relevant to skin condition:

- 1) Physical condition
- 2) Mental condition
- 3) Activity
- 4) Mobility
- 5) Incontinence

### Availability

Available for free here: [http://scireproject.com/wp-content/uploads/Norton\\_pressure\\_sore\\_risk\\_assessment\\_scale.pdf](http://scireproject.com/wp-content/uploads/Norton_pressure_sore_risk_assessment_scale.pdf)

**Languages:** English

## Assessment Interpretability

### Minimal Clinically Important Difference

Not established in SCI

### Statistical Error

Not established in SCI

### Typical Values

**Mean (Range) Scores:**

All patients: 12.2 (11.9-12.5)

Patients w/ PUs at any stage (n=80): 11.6 (11.2-12.0)

Patients w/o PUs at any stage (n=64): 13.1 (12.6-13.6)

(Ash, 2002; n=144; mixed injury type, mean time from injury to discharge = 152 (range: 9–506) days)

**Threshold Values:**

Not established for SCI. But for the general population, a score of < 14 has been suggested to identify individuals at risk for developing pressure sores.

(Norton et al 1962)

However, there is currently no research evidence to support this value.

## Measurement Properties

### Validity – **Low** to **Moderate**

#### **Moderate** correlation with Waterlow Pressure Ulcer

##### Scale:

$r = -0.50$  to  $-0.56$

#### **Moderate** correlation with Braden Scale:

$r = 0.48$ - $0.49$

#### **Low** correlation with Stirling's Pressure Ulcer Severity

##### Scale:

$r = -0.28$

(Wellard et al., 2000; n=60, SCI individuals with 1+ PU admission to hospital, mixed injury types, mean (SD) length of stay in the hospital: 91 (98) days )

#### **Moderate** ROC Analysis;

AUC = 0.72

(Ash, 2002; n=144; mixed injury type, mean time from injury to discharge = 152 (range: 9–506) days)

**Number of studies reporting validity data: 3**

### Reliability – **Not Established in SCI**

Not established in SCI

**Number of studies reporting reliability data: 0**

## Responsiveness

### Floor/Ceiling Effect:

Floor: 86% determined as no risk, 8% at risk, 2% at high risk

(Wellard et al., 2000; n=60, SCI individuals with 1+ PU admission to hospital, mixed injury types, mean (SD) length of stay in the hospital: 91 (98) days )

### Effect Size:

Not established in SCI

**Number of studies reporting responsiveness data: 1**