Multi-disciplinary risk assessment: a revised approach to pressure ulcer management

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Pressure ulcers – the current situation

- Pressure ulcers are the most common complication of delivering healthcare (Safety Thermometer 2014)
- They affect approximately 15% of hospital and 4-7% of community patients (Briggs et al. 2013, Stevenson et al. 2013)
- They impact greatly on wellbeing with distressing symptoms such as pain, exudate and odour; increased care burden, prolonged rehabilitation, requirement for bed-rest, hospitalisation and, where people with chronic long-term conditions work, causing prolonged work-related sickness absence (Gorecki, C., et al. 2009)
Impact on Care Providers

• In 2004 UK costs were estimated to be £1.4-2.1 billion annually, equivalent to 4% of total NHS expenditure (Bennett, D. G., et al. 2004)
  – due to increased length of hospital stay, hospital admission, community nursing, treatments (reconstruction surgery/ mattresses/ dressings/ technical therapies) and complications (serious infection).

• Litigation is also a burden to NHS resources and is predicted to increase due to both general societal trends, and changes in the law which has led to investigation of severe PUs by government agencies to detect institutional and professional neglect of vulnerable people.
Why do people develop pressure ulcers?

• Aetiology: direct or localised pressure at the interface between skin and a support surface, may be accompanied by sheer and/or friction

• Injury depends on the ability of the skin to maintain and effectively restore blood flow
  – Intensity and duration of pressure
  – Tolerance of the skin to pressure
Risk factors

• Systematic review of risk factors (Coleman et al. 2013)
  – 5462 abstracts retrieved, 365 were identified as potentially eligible and 54 fulfilled the eligibility criteria. The 54 studies included 34,449 patients and acute and community patient populations
  – Risk factors emerging most frequently as independent predictors of pressure ulcer development included three primary domains of
    • mobility/activity,
    • perfusion (including diabetes)
    • skin/pressure ulcer status.
  – Skin moisture, age, haematological measures, nutrition and general health status are also important, but did not emerge as frequently as the three main domains.
  – Body temperature and immunity may be important but require further confirmatory research. There is limited evidence that either race or gender is important
Risk Assessment Scales

Benefits:
• raises awareness of risk factors
• minimum standard of risks assessed
• improved documentation
• crude indicator of risk
• framework for care

Limitations of current scales:
• lack of agreement of which risk factor should be included and some important risk factors are not included e.g. skin condition, perfusion
• variable validity and reliability
• do not distinguish between those with pressure ulcers and those without
• full assessment undertaken on all patients even those obviously not at risk
Main differences between PURPOSE T and other widely used tools

PURPOSE T development:
• based on Systematic Review evidence and PURPOSE Pain Cohort Study
• involved international inter-disciplinary experts in the PU field
• involved pre-testing and field testing with clinical nurses
• undertaken in partnership with service users (PURSUN)
Main differences between PURPOSE T and other widely used tools

• screening stage for all patients and full assessment for those at potential/actual risk – saving time in practice
• supports care planning in response to the patient’s risk profile (factors) rather than a condensed score
• use of colour to support decision making
• incorporates skin/PU status
• clear distinction between primary (at risk, but no PU) and secondary prevention and treatment pathway (existing PU or scarring from previous PU)
• incorporates minimum data set to facilitate future modelling
## Step 1 - screening

### Mobility status - tick all applicable
- Walks independently with or without walking aids
- Needs the help of another person to walk
- Spends all or the majority of time in bed or chair
- Remains in the same position for long periods

If **ANY** yellow boxes are ticked, **go to Step 2**

### Skin status - tick all applicable
- Normal skin
- Current PU category 1 or above?
- Reported history of previous PU?
- Vulnerable skin e.g. blanchable redness that persists, dryness, paper thin, moist

If **ONLY blue box** is ticked

If **ANY** yellow or pink boxes are ticked, **go to Step 2**

### No pressure ulcer not currently at risk
- **Tick if applicable**
  - Not currently at risk pathway
### Step 2 - full assessment

#### Analysis of independent movement

- **Tick the applicable box (where frequency and extent categories meet)**
  - Extent of independent movement
    - Relief of all pressure areas
  - Slight position changes
  - Major position changes
- **Frequency of position changes**
  - Doesn’t move
  - Moves occasionally
  - Moves frequently

#### Sensory perception and response

- **Tick as applicable**
  - No problem
  - Patient is unable to feel and/or respond appropriately to discomfort from pressure

#### Moisture due to perspiration, urine, faeces or exudate

- **Tick as applicable**
  - No problem/Occasional
  - Frequent (2-4 times a day)
  - Constant

#### Diabetes

- **Tick as applicable**
  - Not diabetic
  - Diabetic

#### Perfusion

- **Tick all applicable**
  - No problem
  - Conditions affecting central circulation eg. shock, heart failure, hypotension
  - Conditions affecting peripheral circulation eg. peripheral vascular/arterial disease

#### Nutrition

- **Tick all applicable**
  - No problem
  - Unplanned weight loss
  - Poor nutritional intake
  - Low BMI (less than 18.5)
  - High BMI (30 or more)

#### Vulnerable skin (precursor to PU)

- e.g. blanchable redness that persists, dryness, paper thin, moist.
- NPUAP/EPiAP Pressure Ulcer Classification System (2009)
  - Cat 1 Non-blanchable redness of intact skin
  - Cat 2 Partial thickness skin loss or blister
  - Cat 3 Full thickness skin loss (fat visible)
  - Cat 4 Full thickness tissue loss (muscle/bone visible)
  - Cat U (Unstageable/Unclassified): full thickness skin or tissue loss - depth unknown

#### Current Detailed Skin Assessment

- For each skin site tick applicable column for either normal skin, vulnerable skin or record PU category if applicable. Tick if pain, soreness or discomfort present at any skin site as applicable.

#### Previous PU history

- **Tick as applicable**
  - No known PU history
  - PU history - complete below
  - Number of previous pressure ulcer(s):
    - Detail of previous PU (if more than 1 previous PU give detail of the PU that left a scar or worst category).
  - Approx date
  - Site
  - PU cat
  - Scar
  - No scar

#### Other relevant information (if required):
Vulnerable skin – blanchable redness that persists

Category 1
**Step 3 - assessment decision**

If **ANY pink boxes** are ticked/completed, the patient has an existing pressure ulcer or scarring from previous pressure ulcers.

- **PU Category 1 or above** or scarring from previous pressure ulcers
  - **Tick if applicable**
  - Secondary prevention and treatment pathway

If **ANY orange boxes** are ticked (but no pink boxes), the patient is at risk.

- **No pressure ulcer but at risk**
  - **Tick if applicable**
  - Primary prevention pathway

If **only yellow and blue boxes** are ticked, the nurse must consider the risk profile (risk factors present) to decide whether the patient is at risk or not currently at risk.

- **No pressure ulcer not currently at risk**
  - **Tick if applicable**
  - Not currently at risk pathway

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http://ctruleeds.ac.uk/Skin/SummaryOfPressureUlcerPreventionPathways/Access
Planning Care

Care plan should:
• address the patient’s risk profile (factors)
• consider patient preferences & ability to self-care
Patients should be involved in decisions about their care

Essential Elements of Care include:
• promotion of movement
• re-positioning
• support surface provision
• Active monitoring of skin response
Multi-disciplinary care: consider your contribution

- Independent movement
- Sensory perception and response
- Moisture
- Diabetes
- Perfusion
- Nutrition
- Skin status
- Pain
MDT investigations: Case study

• Background
  - 64 year old female, BMI = 38, known pancreatic Ca, DM, chronic back pain, previous stroke, acute admission following deterioration, R swollen leg and hypoglycaemic episode on admission. Category 1 pressure damage to sacrum and buttocks on admission.

• Investigation findings
  - Raised CRP, uraemic, low albumin on admission not identified as risk factors and not communicated with nurses
  - Period of time in chair prior to, and during first few days, not identified as increasing risk
  - Difficulties/ delays in CT resulted in unclear diagnosis and management plan
  - Impact of physical size, cognitive impairment and anxiety on ability to move was not recognised early
  - Recurrent hypoglycaemic episodes could have been better managed with additional input e.g. dietician and endocrinologist
Summary

• Pressure ulcers are a huge problem
• Not only the domain of one profession
• Multi-disciplinary endeavour
• Care is based on objective, subjective and intuitive perspectives