Pressure ulcer prevention should be a high priority for all healthcare staff, and regularly assessing patients' risk of developing pressure ulcers is a key component of care. Communicating and transferring information about all elements of pressure ulcer prevention is an under-researched area, even though it is identified as one of the most common issues in root-cause analyses of pressure ulcer incidents and patient complaints about care (ACT Academy, 2018).

Using a structured risk assessment tool can help staff to communicate with other members of the clinical team and to do so with patients and carers to help them understand which factors increase their risk.

A risk assessment module forms part of the aSKING framework used in the new core curriculum for pressure ulcer education developed to enable nurses and other practitioners to understand and undertake risk assessment as a key component of successful care delivery. This article, the second in an eight-part series on the new education curriculum, outlines the key factors in assessing risk for effective pressure ulcer prevention.

Key points
- Risk assessment is the first step in preventing pressure ulcers
- A risk assessment forms the basis for planning, implementing and evaluating preventive care
- It is important to assess risk as soon as possible and to review it regularly
- Use of risk assessment tools needs to be paired with clinical judgement
- A key element of assessing risk is the clear, thorough and timely documentation of that risk

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Abstract
Risk assessment is the first step in pressure ulcer prevention to identify patients most at risk, plan and implement interventions, and ensure resources are used appropriately. A risk assessment module forms part of a new core curriculum for pressure ulcer education developed to enable nurses and other practitioners to understand and undertake risk assessment as a key component of successful care delivery. This article, the second in an eight-part series on the new education curriculum, outlines the key factors in assessing risk for effective pressure ulcer prevention.

Citation

Pressure ulcer education 2: assessing patients’ risk of pressure ulcers

Pressure ulcer prevention should be a high priority for all healthcare staff, and regularly assessing patients’ risk of developing pressure ulcers is a key component of care. Communicating and transferring information about all elements of pressure ulcer prevention is an under-researched area, even though it is identified as one of the most common issues in root-cause analyses of pressure ulcer incidents and patient complaints about care (ACT Academy, 2018). Using a structured risk assessment tool can help staff to communicate with other members of the clinical team and to do so with patients and carers to help them understand which factors increase their risk.

A risk assessment module forms part of the aSKING framework used in the new core curriculum for pressure ulcer education (NHS Improvement, 2018) (described in Part 1 of this series). The module ensures that practitioners understand, and can undertake, pressure ulcer risk assessment by developing their:
- Understanding of risk factors associated with compromised skin integrity;
- Ability to identify and undertake relevant risk assessments;
- Ability to implement interventions to reduce and manage pressure ulcer development risk.

Why assess risk?
Pressure ulcers affect patients in all areas of care, in every care setting, from birth to death. Risk assessment is not only relevant when a patient is acutely unwell and requires hospitalisation; elements are required for any patient requiring help and support from social services as well as health services. This may take the form of screening rather than detailed assessment, but it should be used to flag changes in condition and increase in risk.

The reasons for conducting a risk assessment are outlined in Box 1. They include identifying patients most at risk of developing pressure ulcers, planning and implementing interventions, and ensuring resources are used appropriately. It is important to assess risk as soon as possible.
Clinical Practice Review

and to review it regularly; the frequency of review should be based on the person’s overall condition and the care setting. Risk must always be reassessed when the care setting changes; for example, upon transfer between wards, from hospital to home or from home to any care setting.

How to assess risk
Risk can be assessed in a variety of ways depending on the care setting and who is involved in the risk assessment. Carers, and sometimes patients themselves, can articulate changes in risk very clearly if educated appropriately and empowered to participate in their own care or the care process.

Pressure ulcer risk assessment to identify persons most at risk of developing pressure ulcers is considered the first step in prevention (Balzer et al, 2014) and forms the basis for planning, implementing and evaluating pressure ulcer prevention care. Although the National Institute for Health and Care Excellence (2014) specifies when to carry out risk assessment and reassessment, in practice, it can occur at any opportunity during caregiving (for example, washing, toileting, mobilising, therapy).

NICE (2014) suggests pressure ulcer risk assessment should be based on clinical judgement and/or use of a validated tool. However, a systematic review of the impact of risk assessment on the occurrence of pressure ulcers suggested a risk assessment tool alone does not prevent them (Pancorbo-Hidalgo et al, 2006), while Balzer et al (2014) found that clinical judgement alone was subjective and depended on knowledge and experience of risk factors. A Cochrane review by Moore and Patton (2019) concluded that it is uncertain whether use of a risk assessment tool makes any difference in preventing pressure ulcers, compared with clinical judgement. Although a validated risk assessment tool gives a logical and structured assessment, which is easily documented and reviewed, it should be used alongside clinical judgement.

Box 1. Assessing pressure ulcer risk

<table>
<thead>
<tr>
<th>Why?</th>
<th>The main reasons are to:</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Identify those at risk</td>
<td></td>
</tr>
<tr>
<td>2. Plan, implement and evaluate care interventions</td>
<td></td>
</tr>
<tr>
<td>3. Ensure appropriate use of resources</td>
<td></td>
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</tbody>
</table>

| Who? | Any person receiving care from a health professional |

<table>
<thead>
<tr>
<th>Where?</th>
<th>Any healthcare institution</th>
</tr>
</thead>
<tbody>
<tr>
<td>2. Any person’s home that health professionals visit</td>
<td></td>
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</table>

<table>
<thead>
<tr>
<th>When</th>
<th>Any opportunity</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Within six hours of admission to a healthcare setting</td>
<td></td>
</tr>
<tr>
<td>2. At first face-to-face contact in a community setting by clinical staff</td>
<td></td>
</tr>
<tr>
<td>3. On change of clinical condition or circumstances (NICE, 2015; NICE, 2014) or change of care setting</td>
<td></td>
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<table>
<thead>
<tr>
<th>How?</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Clinical judgement</td>
</tr>
<tr>
<td>2. Pre-screening tools</td>
</tr>
<tr>
<td>3. Risk-assessment tools</td>
</tr>
</tbody>
</table>

Ensure you: Look – at your patient, the environment and equipment used
Listen – to your patient, colleagues
Learn – read clinical notes, ask questions, take a history

<table>
<thead>
<tr>
<th>What if?</th>
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</thead>
<tbody>
<tr>
<td>1. Patient is unwilling/unable to adhere to the care plan – consider the Mental Capacity Act (2005), including ‘best interests’ and Deprivation of Liberty Safeguards</td>
</tr>
<tr>
<td>2. Safeguarding concern – escalate, ensure safety</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Need more help?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ask colleagues or involve multidisciplinary team/AHPs, specialist teams</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>What if you don’t assess the risk?</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. The patient is not identified as being at risk and care is not implemented</td>
</tr>
<tr>
<td>2. The patient’s risk of developing pressure ulcers is increased</td>
</tr>
<tr>
<td>3. Infection risk is increased if the patient develops a pressure ulcer, leading to prolonged hospital admission, poor quality of life, increased morbidity, litigation</td>
</tr>
<tr>
<td>4. Failure to assess may result in investigations, safeguarding issues, referral to the Nursing and Midwifery Council</td>
</tr>
</tbody>
</table>

AHP = allied health professional. NICE = National Institute for Health and Care Excellence

Quick Fact

Number of pressure ulcer risk assessment tools used in clinical practice

Clinical judgement
Clinical judgement is sometimes called ‘clinicians’ instinct’; it is assumed an experienced clinician will ‘just know’ when a patient is at risk of pressure ulcers. Practitioners use their clinical judgement by looking, listening and learning. They also need to be knowledgeable about, and aware of, known risk factors; these relate to the susceptibility or tolerance of the individual or the mechanical boundary conditions, as shown in Box 2 (National Pressure Ulcer Advisory Panel et al, 2014).

Clinical judgement has the advantage of enabling quick assessment and early intervention for preventative care. It allows an individualised assessment, based on observations and knowledge of a specific patient, and can be performed by any practitioner (trained or untrained) at any moment or opportunity. The disadvantage of it is that it is an informal measurement and relies on an individual health professional’s knowledge and experience; as such, it can be difficult to validate or replicate compared with formal score-based tools.

Validated risk assessment tools
A risk assessment tool is a formal tool that uses a point scale or traffic-light system to rate a selection of known risk factors. There are more than 50 pressure ulcer risk tools/scales in use today, some of which are highlighted in Box 3. Some are general, while...
Risk factors for pressure ulcer development

Susceptibility and tolerance of the individual
- Individual mechanical properties of tissue (how well tissue can cope with pressure shear or friction)
- Individual morphology (size and shape) of the tissue and bones
- Individual physiology and repair
- Individual transport and thermal properties
- Nutrition/hydration
- Diabetes
- Body build
- Age
- Sensory impairment
- Mental/cognitive impairment

Mechanical boundary conditions
- Magnitude of mechanical load (how much pressure shear/friction is applied)
- Duration of mechanical load (how long the pressure shear or friction is applied)
- Type of loading (shear, pressure, friction)
- Moisture
- Poor moving and handling
- Reduced mobility
- Incontinence

Source: based on Coleman et al, 2013

Examples of validated risk assessment tools

Risk assessment tools
- Waterlow Score Card: Bit.ly/WaterlowCard
- Braden/Braden Q (Bergstrom and Braden, 1992)
- PURPOSE T (Nixon et al, 2015)
- Norton (Norton et al, 1975)

Pre-screening tools
- Anderson
- PURPOSE T part One
- Pre-PURA (Scotland)

Pre-screening tools – some of which are validated

Pre-PURA (Scotland)
- PURPOSE T (Nixon et al, 2015)
- Norton (Norton et al, 1975)
- Davenport (1992)

As pressure on health services increases, some rapid-turnover departments, such as accident and emergency, can struggle to manage the often-competing priorities of assessing patient and delivering care. This has seen the emergence of pre-screening tools to help quickly identify pressure ulcer risk. Like risk assessment tools, these are based on a score (usually traffic-light or yes/no results) from a few key questions.

Care plan

Risk assessment is the first step in preventing the occurrence of pressure ulcers; if patients most at risk are identified, appropriate preventative actions can be put in place. These are addressed in the Skin, Surface Keep moving, Incontinence and Nutrition (SSKIN) elements of the aSSKINg framework (which are covered in later articles in this series) and should relate directly to areas of risk highlighted within the risk assessment for that individual patient. Not all patients agree with their recommended plan of care so practitioners should ensure they understand why it has been proposed and the consequences of not following it. Many patients have good reasons for not wishing to follow a recommended care plan, so it is worth taking the time to find out what the problem is and try to agree a reasonable compromise. If this is not possible, it is important to document carefully what steps have been taken and escalate concerns where appropriate.