

# The 3-risk approach to pressure ulcer assessment in Norway — safe or a risky business?

## KEY WORDS

- ▶ At-risk patients
- ▶ Norway
- ▶ Pressure ulcers
- ▶ Risk assessment

Successful prevention of Pressure Ulcers (PU) requires that at-risk patients are identified and provided with a package of measures. In Norway, the use of numerical risk assessment tools like Braden, Norton and Waterlow has never been widespread. Instead, a non-numerical approach based on immobility and clinical judgment is recommended by the National Patient Safety Programme to identify those at risk. This article describes the 3-risk approach to risk assessment, its development and whether an even simpler approach could be safe.

Worldwide, the prevention of harm to patients is given much attention since the World Health Organization launched its patient safety programme in 2004 (World Health Organization, 2017), partly based on a report from the UK estimating that 10% of patients in the NHS hospitals experience adverse events (Department of Health, 2000). In Norway, the patient safety campaign 'In Safe Hands – 24/7' was launched by the Ministry of Health and Care Services in 2011 and followed up by a 5-year programme (2014–2018) (Pasientsikkerhetsprogrammet, 2016). The prevention of pressure ulcers was chosen as one of the key areas when the patient safety campaign was initiated and is now one of sixteen priority areas, each provided with a package of measures to prevent harm to patients (Pasientsikkerhetsprogrammet, 2016).

## PRESSURE ULCER PREVALENCE

When 'In Safe Hands – 24/7' was launched, few studies existed on PUs in Norwegian hospitals, leaving us with an incomplete picture of the scale of the problem. Internationally, PU prevalence and incidence vary between wards, but studies show that around 20% of all hospitalised patients suffer from PU (Vanderwee et al, 2007). It was assumed that similar findings could apply to the Norwegian context. Research

into PUs in Norwegian hospitals is still limited. However, PUs has been given more attention and recent studies have shown prevalence around 18% (Bredesen et al, 2015; Johansen et al, 2017), supporting the international findings (Vanderwee et al, 2007).

## RISK ASSESSMENT

Most PUs can be prevented (Institute for Healthcare Improvement, 2017), it is therefore important to identify 'at risk' patients, so that appropriate preventive measures can be provided. PU risk assessment is regarded a key to prevention but there is no agreed approach for how the assessment should be conducted (National Pressure Ulcer Advisory Panel (NPUAP), European Pressure Ulcer Advisory Panel (EPUAP), Pan Pacific Pressure Injury Alliance (PPPIA) et al, 2014). Although the use of a risk assessment tool is recommended by guidelines internationally, it is not known whether using a numerical risk assessment tool makes any difference to patient outcomes (Moore and Cowman, 2014; Webster et al, 2011). Despite this, the routine use of such tools is common throughout the world, except in Norway (Moore et al, 2013). Therefore, when the patient safety campaign was rolled out, Norwegian healthcare workers had hardly any experience and little knowledge of numerical instruments such as Waterlow, Norton, Modified

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Norton or Braden (Johansen et al, 2014). Straightforward clinical judgment had been the universally accepted way to identify at-risk patients (Johansen et al, 2014).

In 2011, the author became a member of the expert panel who was asked to provide the Norwegian patient safety campaign with an evidence-based package of measures to prevent PUs. The experts had to decide on the best method for hospital staff to identify at-risk patients. Because risk assessment tools were not widespread and possibly not superior to clinical judgment (Webster et al, 2011), an opportunity emerged to critically review available evidence about risk assessment tools and existing clinical practice.

#### GO WITH THE FLOW OR CHANGE DIRECTION?

When existing tools and practices were compared, an important argument was to provide a consistent and structured approach to risk assessment as recommended by NPUAP, EPUAP, PPIA (2014). The expert panel therefore had to agree on a structured approach involving clinical judgment, a numerical, or a non-numerical risk assessment tool.

When a risk-assessment tool is not used, nurses must rely on experience and observations when they consider whether a patient is at risk of developing PU or not (Sharp et al, 2005). It means that, in context where risk assessment tools are sparsely used, nurses use their experience and knowledge. However, knowledge and attitudes toward PU may be insufficient among hospital staff (Beekman et al, 2011; Gunningberg et al, 2015). Yet, in countries like Norway, where PU had been given limited attention among researchers, attention to risk assessment and preventive practice was therefore at risk of relying on the personal knowledge and attitude among carers.

It may be impossible to design a risk assessment tool that will meet the needs of all patients (Moore and Cowman, 2014) but to be clinically useful, a tool must support carers in a complex and hectic sector. What is regarded to be reliable, valid and useful from a research or statistical viewpoint may not always be clinically

valuable. Some tools may actually be time consuming and confusing (Sharp and McLaws, 2006). The use of risk-assessment instruments may therefore depend on the ease of use, caregivers preferences and existing practice within a clinical setting (Chou et al, 2013). These considerations were important for the Norwegian context in 2011.

The expert group looked at existing research which argued that reliability and validity testing in existing numerical risk assessment tools was sparse (Sharp and McLaws, 2006; García-Fernández et al, 2013) and that sub-scores and cut-off points were being questioned (Papanikolaou et al, 2007). According to Moore and Cowman (2014), there was also no statistically significant difference in PU incidence between people assessed with Braden risk assessment tool and those who received unstructured risk assessment. Not unexpectedly, in the expert group there were some who argued for and others that argued against the introduction of numerical risk assessment scales into the Norwegian hospital sector.

Risk assessment scales, like Norton, Braden and Waterlow, are numerical leaving the assessor with a sum score based on sub-scores within the tool. According to Sharp and McLaws (2006), the Ramstadius Pressure Ulcer Risk Assessment and Intervention Tool is the only validated and published non-numerical tool. This non-numerical risk assessment tool assesses patients' skin (skin integrity/existing PU) and their ability to reposition themselves (Ramstadius, 2000; Webster et al, 2011). If the patients can reposition themselves independently, the assessment is complete and the patient is classified as not being at risk of PU (Sharp and McLaws, 2006). Immobility is regarded a key risk factor or a necessary condition for other PU risk factors to have any value (NPUAP, EPUAP, PPIA, 2014; Sharp and McLaws, 2006) and nurses have verified the importance of immobility in previous studies (Johansen et al, 2014; Sharp et al, 2005). The assessment of immobility, or the inability of patients to reposition themselves, was therefore regarded as being highly important in the package of measures to prevent PU by the author. Further

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**Risk assessment with 3 questions:**

1. Does the patient have a pressure ulcer (PU)?
2. Is the patient in need of help to reposition himself in bed or chair?
3. Is it likely that the patient may get a PU?

If the answer is YES to any of the above questions, the patient is at risk of PU.

**Figure 1. The 3-risk-approach used in Norway**

literature reviewing revealed that having an existing PU may increase the risk of getting more PU (NPUAP, EPUAP, PPIA, 2014) and was therefore included in the 3-risk-approach. Being wise after this decision, this element should be questioned because patients may have developed a PU while being immobile and if they become mobile, the risk of getting more PU should not be the case.

Regardless of how the risk assessment is structured, it should always be combined with clinical judgment (NPUAP, EPUAP, PPIA, 2014). Knowing that clinical judgment relies on nurses' knowledge, attitude and experience, it was decided to emphasise the importance of applying clinical judgment together with an assessment of existing PU and immobility. This led to a 3-risk-approach developed by the author (*Figure 1*).

Because it is not proven that any approach to risk assessment is superior to another, the Norwegian patient Safety Programme — in safe hands 24/7 — decided to leave it to the trusts to decide whether they preferred to use the 3-risk-approach, or a numerical risk assessment tool like Braden, Norton or others. Without any hard evidence, we can confirm that the 3-risk-approach is widely adopted in Norwegian hospitals.

## CONCLUSION AND RECOMMENDATIONS

The fact that the 3-risk-approach is widely adopted in Norwegian hospitals may indicate that it is regarded as being valid and useful by clinicians. However, only one published study (poster) exists on the use of this 3-risk-approach (Holter and Skogestad, 2016). Although this was a limited study, it concluded that this 3-risk-approach was simple and safe for patients in medical wards. Overall, however, there is a need to carry out research to assess whether the existing tool contributes to patient safety or is in fact a risky business. It should also investigate whether an existing PU in the mobile population is really a risk factor, or not.



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