1. Risk Assessment Tools

1.1 Welcome

Narration

No narration, only music.
1.2 Assessment Scales

Narration

JILL: Hi ... I’m Jill along with Mark. Welcome to the second part of Module 3. We will be doing a brief overview of the tools that are commonly used to identify the patients and residents most at-risk for developing a pressure ulcer.

MARK: You are talking about the specialized forms we fill out when we are assessing a patient for pressure ulcers, right?

JILL: Yes, that is correct. A large number of scales have been developed to provide a structured approach to risk assessment. These scales can provide useful information about who is likely to develop pressure ulcers.

However, as with all such tools, they have their limitations and should not be used alone. These tools must be used in combination with a comprehensive skin assessment and your best clinical judgment.

Once you have identified those at high risk for developing pressure ulcers, preventive care plans can be developed and implemented. Risk assessments are also useful in identifying the
extent to which a person exhibits a specific risk factor, thus providing information for appropriate interventions.

**MARK:** Are we going to look at all the risk-assessment scales in detail?

**JILL:** No Mark. That would be beyond the scope of this course. We are going to provide a brief overview of some of the most common scales, along with a few of the advantages and disadvantages of each. If your nursing involves pressure ulcers, then you should be thoroughly familiar with the risk-assessment scales used by your healthcare facility.
1.3 The Right Scale

Choosing the Right Scale

Risk factors converted to a score
Clinical judgment to interpret scores
No one scale can perfectly predict

Narration

MARK: Jill, what are these risk-assessment scales designed to do?

JILL: In an effort to create a simple screening tool for clinical use, the scales reduce a complex number of patient and environmental factors into a simple score. Clinical judgment must be exercised to interpret these scores within the context of often-complex patient and clinical conditions.

MARK: How good are these scales?

JILL: Studies by researchers on various risk-assessment scales have concluded that no one scale can perfectly predict a patient’s risk for developing pressure ulcers. However, overall these tools do improve pressure ulcer prediction, and therefore help in their prevention.
1.4 Braden Scale

Narration

**JILL:** Let’s start our overview of the risk-assessment tools with the Braden Scale. The Braden Scale is one of the most commonly used scales. It has the strongest evidence supporting its validity and reliability.

**MARK:** So what does the Braden Scale measure?

**JILL:** The Braden Scale is made up of six subscales that address the main factors associated with pressure ulcer development: mobility, activity level, sensory perception, exposure to moisture, nutritional status, and exposure to friction and shear forces.

**MARK:** Well, those factors look familiar.

**JILL:** Well of course. These are the risk factors that we learned about in Module 2.
1.5 Braden Scale 2

The Braden Scale

Scores range from 6 to 23
Score below 18 indicates high risk
Details on each aspect of risk assessment
Indicates level of sensory perception
Uses physical assessment and interviews

Narration

MARK: What are the scores on the Braden Scale and how do you interpret them?

JILL: Scores on the Braden Scale can range from 6 to 23 – the lower the score, the higher the risk for the patient developing a pressure ulcer. Researchers have found that that a score of 18 or lower identifies those patients most at-risk.

MARK: What about the subscales?

JILL: The Braden Scales provides details for each factor being assessed. This allows nurses to red-flag areas that may require more in-depth assessment and specific preventative strategies. The scale also provides information on the levels of sensory perception. This makes it possible to determine whether the patients have no sensation and cannot mobilize to protect their bodies from the effects of pressure. This information is invaluable for prevention purposes.

When administering the Braden Scale, nurses should use physical assessment and interviews to elicit the data. It is important not to alter the scale by adding or deleting items or modifying definitions. Such changes may affect its predictive accuracy.
1.6 Braden Q Scale

![The Braden Q Scale](image)

**Narration**

**JILL:** The next risk-assessment tool is the Braden Q Scale. Mark, why don’t you describe this one?

**MARK:** Sure. The Braden Q Scale is a modified version of the Braden Scale. It has been developed and tested with pediatric patients. Its subscales reflect the developmental needs of infants and children.

The Braden Q Scale was developed for pressure ulcer risk identification in children ages 21 days to 8 years. Scores range from 7 to 28, with low scores indicating higher risk for pressure ulcer development and high scores indicating lower risk.

The Braden Q consists of 7 subscales: mobility, activity, sensory perception, moisture, friction or shear, nutrition, and tissue perfusion and oxygenation.

**JILL:** Great, thanks.
1.7 Glamorgan Scale

The Glamorgan Scale
Pediatric pressure ulcer risk-assessment scale
For children from birth to 18 years
Score of 10 or higher indicates at risk

Narration

JILL: The Glamorgan Pediatric Pressure Ulcer Risk Assessment Scale claims to be the first such scale that was developed statistically using patient data. It is suitable for use with children from birth to the age of 18 years and may be suitable for preterm neonates. A score of 10 or higher indicates a risk for developing pressure ulcers.
1.8 Norton Scale

Narration

**JILL:** The next risk-assessment tool is the Norton Scale. This one was developed for the elderly population in the United Kingdom. Mark?

**MARK:** The Norton consists of five subscales: physical condition, mental condition, activity, mobility and incontinence.
1.9 Norton Scale 2

The Norton Scale

Scores 5 (high risk) to 20 (low risk)

Weaknesses:
- nutrition not assessed
- lack of descriptions

Narration

**MARK**: The total score ranges from 5 – which is high risk, to 20 – which is low risk. The cut-off point is 14. A patient at or below a score of 14 is at increased risk for developing a pressure ulcer.

The Norton scale shows good sensitivity and specificity in its validity testing. However, this scale has been criticized for a couple of reasons. First, nutrition is not assessed as a risk factor in the scale. We know that nutrition is an important factor in preventing and healing pressure ulcers.

Second, the scale does not provide descriptions of its five risk components. If users are not properly trained on the Norton Scale, they may incorrectly assess a patient’s risk for developing pressure ulcers.

**JILL**: Thanks for doing that Mark.
1.10 Waterlow Scale

Waterlow Scale

Most widely used in Europe
Designed to:
1. Assess risk for pressure ulcers
2. Suggest preventive measures
3. Grading system supported by EPUAP

Assesses normal risk and special risk

Narration

JILL: The Waterlow Scale was originally developed in England. It is now the most widely used pressure ulcer risk-assessment scale in Europe.

The Waterlow Scale was designed to serve three purposes:

1. To provide a risk assessment for pressure ulcers
2. To make recommendations for preventive measures depending on the patient’s specific risk areas
3. To list the pressure ulcer grading system supported by the EPUAP.

The scale assesses normal risk and special risk.

MARK: What normal risk factors does the Waterlow assess?
1.11 Waterlow Scale 2

Narration

**JILL:** The normal risk section assesses the following: build/weight for height; skin type and visual areas; gender ...

**MARK:** How is gender a risk factor?

**JILL:** The Waterlow scores females as a higher risk due to anatomical differences. It is more difficult to keep women clean, dry and free from the effects of urinary incontinence.

**MARK:** Oh, I see. Sorry to interrupt, please continue.

**JILL:** The remaining risk factors measured by the Waterlow are ... age, malnutrition, continence and mobility.

**MARK:** Most factors here are the usual ones we see in the other scales.

**JILL:** Yep.
1.12 Waterlow Scale 3

Waterlow Scale

Interpretation of risk scores:

- 10+ = at risk
- 15+ = at high risk
- 20+ = at very high risk

Tends to over-predict
Lack of explanatory comments

Narration

JILL: The cut-off point for the Waterlow score is 10 for being at-risk. Any score above 15 is high risk while a score of 20 and above signifies a very high risk. By defining the risk scores in this manner, it allows nursing staff to immediately recognize the level of risk. They can then develop an appropriate pressure ulcer prevention plan.

Studies have found that the Waterlow Scale often over-predicts the number of patients that will develop pressure ulcers. Researchers have also criticized the scale because of lack of explanatory comments for each of the risk-assessment areas. This makes it easy for nurses to misjudge each patient’s actual level of risk.

This brings us to the end of our review of pressure ulcer risk-assessment tools. Any thoughts Mark?

MARK: It was a good overview. Obviously each scale has its strengths and weaknesses. I guess it is important to remember that these scales are useful tools. But they need to be used by trained healthcare professionals familiar with the specific scale and the results combined with clinical judgment.
1.13 Summary

Summary
Common PU risk assessment tools
Useful but not perfect
Reviewed Braden, Braden Q, Glamorgan, Norton & Waterlow
Know your risk assessment scale
Use with skin assessment and best clinical judgment

Narration

JILL: Mark, why don’t you summarize what we covered in this presentation?

MARK: Okay. We discussed how risk-assessment scales have been developed to identify the patients and residents that are likely to develop pressure ulcers. These scales are useful tools, but none are perfect predictors.

We briefly reviewed the most common tools used. These include the Braden, Glamorgan, Norton and Waterlow. All have their advantages and some weaknesses. It was not our intent to provide detailed instructions on how to use any of these scales. However, you should be familiar with the pressure ulcer risk-assessment tools that your healthcare organization uses. Finally, these tools should be used along with comprehensive skin assessments and your clinical judgments to obtain the best predictive results.

JILL: Thanks Mark. This is the end of our presentation. Goodbye for now. Mark and I will see you again soon.

MARK: See you later.
[No narration, only music]