South West **LHIN**

Wound Assessment

South West Regional Wound Care Program

SOUTHWEST REGIONAL WOUND CARE PROGRAM

Ontario

Objectives

- SWRWCP Team overview
- Validated assessment tool
- Identifying wound location
- Determine the age of the wound
- Measure the wound
- Identify the moisture level
- Identify tissue type

SWRWCP

- Integrated, evidenced-informed skin and wound care every person, every health care sector, every day

Preparing for Assessment

Patient – Jessica Green

Jessica L. Green

Name: Jessica L. Green

Age: 67 years old

Primary Care Location: Community Health Centre

Health Status:

* Type 2 Diabetes
* High Blood Pressure controlled by medication
* Obese
* Smoker – had quit but started again when her husband became ill
* Moderate depression – her husband recently passed away
* Arthritis in right knee – candidate for joint replacement surgery
* Leg ulcer

What do you need to do before you assess?

- Review relevant health care documentation
- Gather wound measurement supplies
- Hand Hygiene
- Collect PPE
- Have a wound assessment tool available

Validated Assessment Tool

Validated Assessment Tools

- Allows for collection of data to show change over time
- Is the wound better, worse, or the same?
- Examples (multiple available):

Assessment Tool	Number of characteristics	Score range
PUSH (Pressure Ulcer Scale for Healing)	3	17
BWAT (Bates-Jensen Wound Assessment Tool)	13	13-65
PWAT (Photographic Wound Assessment Tool)	8	32

PUSH Tool

NATIONAL PRESSURE ULCER ADVISORY PANEL

Pressure Ulcer Scale for Healing (PUSH)

PUSH Tool 3.0

Patient Name_____ Patient ID# _____

Ulcer Location _____ Date _____

PUSH Tool

Directions:

Observe and measure the pressure ulcer. Categorize the ulcer with respect to surface area, exudate, and type of wound tissue. Record a sub-score for each of these ulcer characteristics. Add the sub-scores to obtain the total score. A comparison of total scores measured over time provides an indication of the improvement or deterioration in pressure ulcer healing.

LENGTH X WIDTH (in cm^2)	**0** 0	**1** < 0.3	**2** 0.3 – 0.6	**3** 0.7 – 1.0	**4** 1.1 – 2.0	**5** 2.1 – 3.0	**Sub-score**
		6 3.1 – 4.0	**7** 4.1 – 8.0	**8** 8.1 – 12.0	**9** 12.1 – 24.0	**10** > 24.0	
EXUDATE AMOUNT	**0** None	**1** Light	**2** Moderate	**3** Heavy			**Sub-score**
TISSUE TYPE	**0** Closed	**1** Epithelial Tissue	**2** Granulation Tissue	**3** Slough	**4** Necrotic Tissue		**Sub-score**
							TOTAL SCORE

PUSH Tool

Length x Width: Measure the greatest length (head to toe) and the greatest width (side to side) using a centimeter ruler. Multiply these two measurements (length x width) to obtain an estimate of surface area in square centimeters (cm^2). Caveat: Do not guess! Always use a centimeter ruler and always use the same method each time the ulcer is measured.

Exudate Amount: Estimate the amount of exudate (drainage) present after removal of the dressing and before applying any topical agent to the ulcer. Estimate the exudate (drainage) as none, light, moderate, or heavy.

Tissue Type: This refers to the types of tissue that are present in the wound (ulcer) bed. Score as a "4" if there is any necrotic tissue present. Score as a "3" if there is any amount of slough present and necrotic tissue is absent. Score as a "2" if the wound is clean and contains granulation tissue. A superficial wound that is reepithelializing is scored as a "1". When the wound is closed, score as a "0".

- **4 – Necrotic Tissue (Eschar):** black, brown, or tan tissue that adheres firmly to the wound bed or ulcer edges and may be either firmer or softer than surrounding skin.
- **3 – Slough:** yellow or white tissue that adheres to the ulcer bed in strings or thick clumps, or is mucinous.
- **2 – Granulation Tissue:** pink or beefy red tissue with a shiny, moist, granular appearance.
- **1 – Epithelial Tissue:** for superficial ulcers, new pink or shiny tissue (skin) that grows in from the edges or as islands on the ulcer surface.
- **0 – Closed/Resurfaced:** the wound is completely covered with epithelium (new skin).

PUSH Tool

Directions:
Observe and measure pressure ulcers at regular intervals using the PUSH Tool.
Date and record PUSH Sub-scores and Total Scores on the Pressure Ulcer Healing Record below.

Pressure Ulcer Healing Record														
Date														
Length x Width														
Exudate Amount														
Tissue Type														
PUSH Total Score														

Graph the PUSH Total Scores on the Pressure Ulcer Healing Graph below.

PUSH Total Score	Pressure Ulcer Healing Graph													
17														
16														
15														
14														
13														
12														
11														
10														
9														
8														
7														
6														
5														
4														
3														
2														
1														
Healed = 0														
Date														

Identify Wound Location

Why is it important to identify wound location?

- Helps determine the cause
- Helps identify the risk for developing an infection
- Helps identify team members who may be needed to support wound healing

Jessica's wound

Identify the Wound Location

- WHAT'S INVOLVED IN THIS STEP?

- Identify the correct anatomical location of each wound.

- WHAT MUST BE RECORDED?

- Which side of the body (right or left)
- Proximal or distal or medial
- Anatomical location

Location of Jessica's wound?

Left lateral lower Leg above the ankle

Determine the Age of the Wound

Why is it important to determine the age of the wound?

- One of the most important indicators of a wound's ability to heal
- Can influence the care plan

- The age of the wound will help you to determine whether the wound is:
  Acute – less than four weeks old
  Chronic – greater than four weeks old

  The age of the wound will help guide treatment and will inform you about the 'healability' of the wound. In general, wounds less than 2 years old are more likely to heal than those more than 2 years old.

How old is Jessica's wound?

"When did it become open? Well, let me see. Around the time my husband was diagnosed with cancer, I noticed some red spots. That was June 5th. I thought it was related to stress. About two months ago it was way worse and that was when I first noticed open areas."

- Jessica

How old is Jessica's wound?

"I'm sure this has been very difficult time for you. That's very helpful information. Let me make sure I got this right. In early June you saw some red spots – so that was 5 months and 2 weeks ago. And one of the spots became bigger and opened 8 weeks ago."

- Yu Yan

Determine the Age of the Wound

- WHAT'S INVOLVED IN THIS STEP?

- Describe the age of each wound in terms of days, weeks, months, and/or years.

- WHAT MUST BE RECORDED?

- The method of recording will depend on your organization's policies. Often, the number of weeks old should be documented. If the age of the wound is over one year, record as one year + number of months (e.g. one year, 2 months). Once the wound is over 2 years, just record the years.

In this case Jessica noticed skin changes 6 months ago.

Her wound is 8 weeks old.

Measure the Wound

Why is it important to measure the wound?

- It is one of the easiest ways to track if the wound is progressing towards healing
- It can help determine if the treatment plan is helping to heal the wound
- It is part of thorough documentation and is a vital piece of information for other members of the health care team

Wound measurement device

Measure the Wound

- WHAT'S INVOLVED IN THIS STEP?

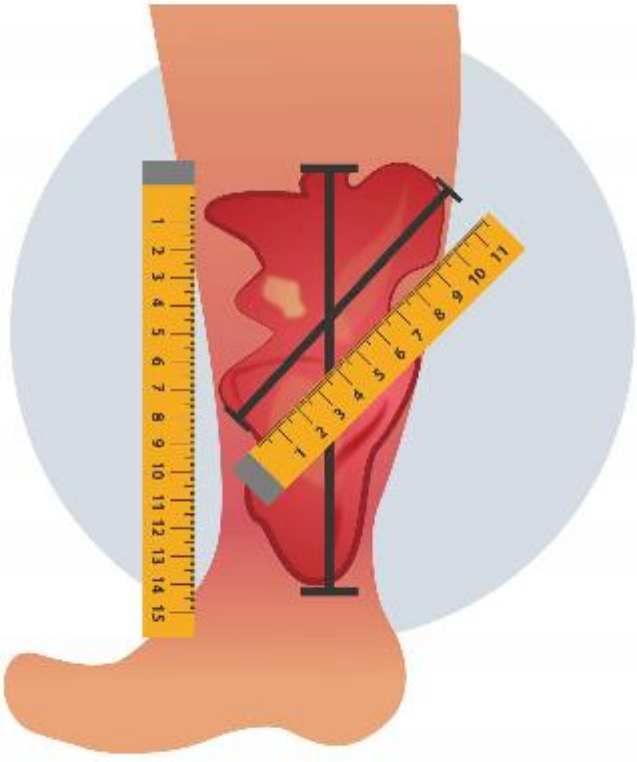
- Measuring the length and width of the wound.
- Then calculating the area (length x width).

- WHAT MUST BE RECORDED?

- Length
- Width
- Area

Look at these 2 ways of measuring Jessica's wound.

Option 1



Option 2

Which was correct?

- Measuring the longest and widest points on a 90 degree angle is the most correct.

- ***However, there is no gold standard for wound measurement method. Please refer to your organizations policy and procedure for measuring a wound****

Undermining & Tunneling

- When assessing wounds you may also observe open areas under the skin.
- One type is called **undermining**. Undermining happens in several directions and is measured using the clock method with the head being 12 o'clock
- **Tunneling** wounds have channels that extend from a wound, generally in one direction. Tunnels are measured using a sterile probe.

PUSH Tool

Directions:

Observe and measure the pressure ulcer. Categorize the ulcer with respect to surface area, exudate, and type of wound tissue. Record a sub-score for each of these ulcer characteristics. Add the sub-scores to obtain the total score. A comparison of total scores measured over time provides an indication of the improvement or deterioration in pressure ulcer healing.

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EXUDATE AMOUNT	**0** None	**1** Light	**2** Moderate	**3** Heavy			**Sub-score**
TISSUE TYPE	**0** Closed	**1** Epithelial Tissue	**2** Granulation Tissue	**3** Slough	**4** Necrotic Tissue		**Sub-score**
							TOTAL SCORE

Identify the Moisture Level

Why is it important to know the moisture level in a wound?

- Increased drainage can be a sign of infection
- It guides the type of dressing that should be used
- It guides the frequency of dressing changes

Yu Yan looking at Jessica's wound.

Identify the Moisture Level

- WHAT'S INVOLVED IN THIS STEP?

You must assess:

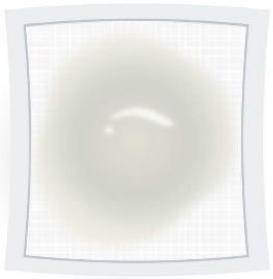
- Exudate colour and consistency
- Exudate amount

Colour & Consistency

Serous

Colour: Clear/light yellow
Consitency: Thin/watery

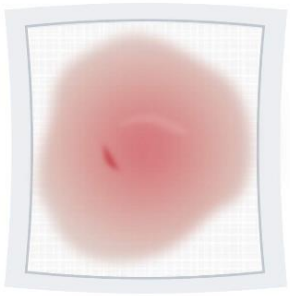
Serous = of a watery nature; resembling serum



Serosanguinous

Colour: Pink to light red
Consistency: Thin/watery

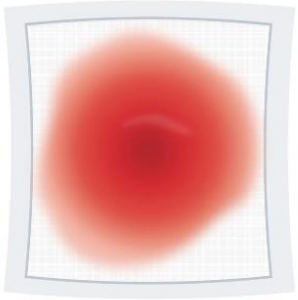
Sero = serum Sanguine = bloody



Sanguinous

Colour: Bright red
Consistency: Thin/watery

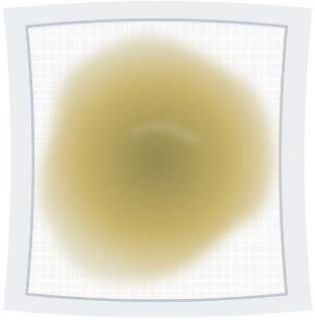
Sanguine = bloody



Purulent

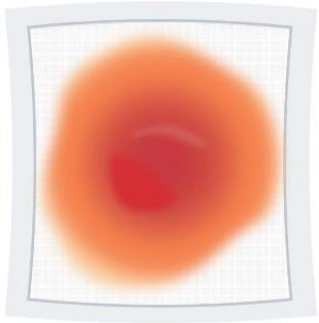
Colour: Darker yellow/tan or blue/green
Consistency: May be thin, thick, watery or opaque

Purulent = consisting of, containing, or discharging pus



Other

Some dressings and topicals can alter the appearance of exudate, i.e. silver, cadexomer iodine, etc.



What type of exudate does Jessica's wound have?

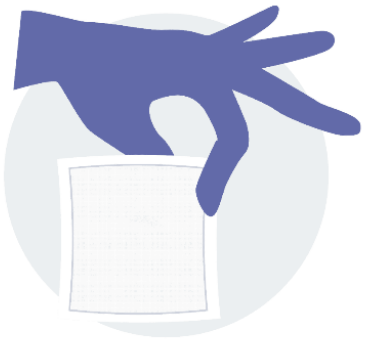
Jessica's Dressing

- Serous

Exudate Amount

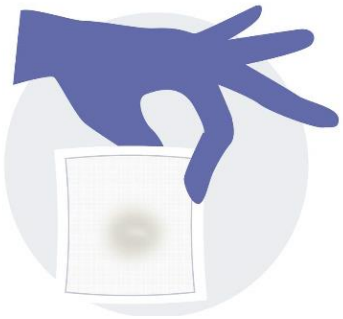
None

- No visible exudate on the dressing or on the wound.



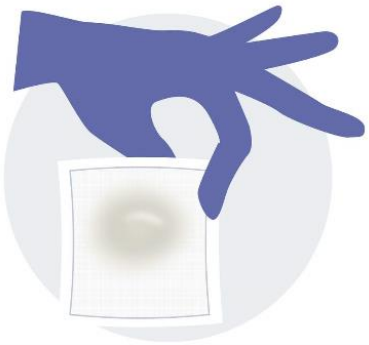
Scant/Small - Light

- Less than 25% of the dressing has drainage on it.
- Wound tissues are visibly moist.
- Moisture is evenly distributed in the wound.



Moderate - Moderate

- Drainage involves 25% to 75% of the dressing.
- Wound tissues are saturated.
- Moisture is/isn't evenly distributed in the wound.



Large - Heavy

- Drainage involves greater than 75% of the dressing.
- Wound tissues are saturated.
- Drainage is freely expressed from the tissue.
- Moisture is/isn't evenly distributed in the wound.

How would you describe Jessica's exudate quantity?

- Large – Heavy

PUSH Tool

Directions:

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EXUDATE AMOUNT	**0** None	**1** Light	**2** Moderate	**3** Heavy			**Sub-score**
TISSUE TYPE	**0** Closed	**1** Epithelial Tissue	**2** Granulation Tissue	**3** Slough	**4** Necrotic Tissue		**Sub-score**
							TOTAL SCORE

Identify Tissue Types

Why is it important to know the tissue types in a wound?

- Since unhealthy tissue impairs healing, it is important to know how much non-viable tissue there is to set realistic expectations about healing time
- Type of tissue present will impact the care plan
- Tissue type may affect the patient's emotional reaction to their wound – this may impact quality of life

Three main categories of tissue types

Good Tissue

Healthy tissue.

- Wound Bed is clean and tissue is red/pink.
- > **Goal:** Maintain moist wound healing environment.

Granulation

- ➜ The growth of small blood vessels and connective tissue into the wound cavity
- ➜ Healthy when bright beefy red, shiny, and granular with a velvety appearance

Epithelial

- ➜ Process of epidermal resurfacing
- ➜ Appears as red or pink skin
- ➜ May migrate from islands on the wounds surface

Three main categories of tissue types

So So Tissue

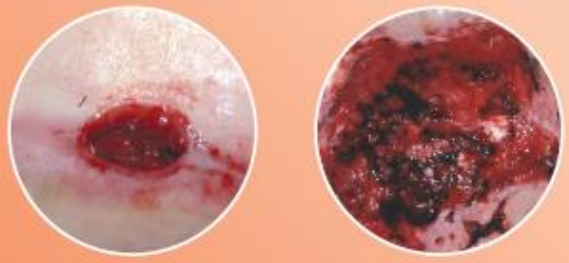
Wound bed has slough/fibrin present and tissue may be a combination of red/pink + ivory, canary yellow or green (depending if infection is present).

- Not all yellow is bad.
- Slough = moist devitalized host tissue that is cream/yellow/tan in colour - depending on hydration. It can be firmly or loosely attached, slimy, stringy, clumpy, or have a fibrinous consistency.
- Fibrin = insoluable protein formed from fibrinogen during clotting of blood.
- > **Goal:** Maintain moist wound healing environment while managing excess exudate and remove slough.

Slough

- Moist devitalized host tissue
- Colour can vary from cream, yellow, and tan
- Can be firmly or loosely attached
- May be slimy, gelatinous, clumpy or fibrinous in consistency

Friable



- Readily bleeding granulation tissue may indicate ischemia, infection or a co-morbidity such as anemia

Three main categories of tissue types

Bad Tissue

Non-viable tissue present.

- Colour may be dark brown, black or grey
  +/- red/pink or
  +/- ivory, canary yellow or green
- > **Goal:** Remove non-viable tissue except eschar on heel (eschar = dry dead host tissue)

Eschar

- Dead skin
- Can occur due to multiple reasons such as: pressure, haematoma, or ischemia
- Can range in colour from black, grey, tan, brown
- Physical barrier to granulation, contraction and re-epithelialization
- Can harbor bacteria

What tissue type(s) does Jessica have?

- Granulation
- Slough

PUSH Tool

Directions:

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		6 3.1 – 4.0	**7** 4.1 – 8.0	**8** 8.1 – 12.0	**9** 12.1 – 24.0	**10** > 24.0	
EXUDATE AMOUNT	**0** None	**1** Light	**2** Moderate	**3** Heavy			**Sub-score** 3
TISSUE TYPE	**0** Closed	**1** Epithelial Tissue	**2** Granulation Tissue	**3** Slough	**4** Necrotic Tissue		**Sub-score** 3
							TOTAL SCORE 16

Tracking Change Over Time

PUSH Tool

Directions:
Observe and measure pressure ulcers at regular intervals using the PUSH Tool.
Date and record PUSH Sub-scores and Total Scores on the Pressure Ulcer Healing Record below.

Pressure Ulcer Healing Record														
Date	6/10	6/17	6/24	7/1	7/8									
Length x Width	10	10	10	10	9									
Exudate Amount	3	3	2	2	2									
Tissue Type	3	2	2	2	2									
PUSH Total Score	16	15	14	14	13									

Graph the PUSH Total Scores on the Pressure Ulcer Healing Graph below.

PUSH Total Score	Pressure Ulcer Healing Graph													
17														
16	X													
15		X												
14			X	X										
13					X									
12														
11														
10														
9														
8														
7														
6														
5														
4														
3														
2														
1														
Healed = 0														
Date														


QUESTION &
ANSWER