

Appendix 1

Checklist for Managing Wound Care, Based on Assessment and Problem Identification

Assessment Element	Finding(s)	Action(s) Taken
	<i>Check box to indicate finding is present</i>	<i>If finding is present, check boxes below to indicate action completed</i>
General Factors		
Ethical considerations	<input type="checkbox"/> Advance directives or other care instructions limit scope, frequency, or intensity of care to be provided	<input type="checkbox"/> Document limitations and adjust care plan accordingly
General medical stability	<input type="checkbox"/> Individual is not stable medically	<input type="checkbox"/> Assess for cause(s) of instability, including systemic infection <input type="checkbox"/> Document when medical instability (multi-systems failure, multiple active chronic conditions, serious acute illness, medical complications, progressive decline, terminal illness) may influence wound development or complicate wound healing <input type="checkbox"/> Indicate short- and longer-term prognosis for improvement in medical status
	<input type="checkbox"/> Signs and symptoms of systemic infection present	<input type="checkbox"/> Initiate appropriate treatment if consistent with care goals and patient wishes
Comorbidities	<input type="checkbox"/> Active comorbid conditions (CHF, diabetes, etc.) are affecting prognosis <input type="checkbox"/> Active comorbid conditions are affecting wound healing	<input type="checkbox"/> Manage comorbid conditions to extent possible, based on patient's treatment goals and wishes <input type="checkbox"/> Document when comorbid conditions may be complicating wound healing <input type="checkbox"/> Document when comorbid conditions may be affecting patient's short-term or long-term prognosis
	<input type="checkbox"/> Major comorbid conditions are affecting both wound healing and patient's general prognosis	<input type="checkbox"/> Reassess care instructions and overall treatment goals, and consider possible end-of-life decisions
Nutrition and hydration status	<input type="checkbox"/> No significant observable or lab evidence of undernutrition <input type="checkbox"/> No recent weight-loss	<input type="checkbox"/> Review intake <input type="checkbox"/> Remove all non-essential dietary restrictions and encourage oral intake, where feasible
	<input type="checkbox"/> Oral intake has declined recently <input type="checkbox"/> Individual has recently started to lose weight <input type="checkbox"/> Individual is mildly undernourished	<i>Level 1:</i> <input type="checkbox"/> Review advance directives or obtain relevant care instructions <input type="checkbox"/> Do calorie count <input type="checkbox"/> Assess reasons for reduced intake <input type="checkbox"/> Remove all non-essential dietary restrictions and encourage oral intake, as appropriate <input type="checkbox"/> Review drug regimen for medications that may be affecting appetite or causing weight loss

Nutrition and hydration status (<i>cont.</i>)		<i>Level 1 (cont.):</i> <input type="checkbox"/> Review for physical causes of weight loss (depression, occult infection, COPD, thyroid dysfunction, CHF) <input type="checkbox"/> Document that nutrition factors are influencing wound healing
	<input type="checkbox"/> Patient continues to lose weight despite above interventions or has had a more prolonged weight loss <input type="checkbox"/> Individual is moderately undernourished	<i>Level 2:</i> <input type="checkbox"/> Provide nutritional supplementation with medication pass or inbetween meals based on the individual's intake and other factors affecting nutritional status (such as concurrent infection)
	<input type="checkbox"/> Individual is severely undernourished or underweight <input type="checkbox"/> Individual continues to lose weight despite prior efforts at expanding intake/supplementation <input type="checkbox"/> Individual has been losing weight over time	<i>Level 3:</i> <input type="checkbox"/> Based on calorie count and initial efforts to expand intake, consider increasing amount of supplementation, alternate means of providing nutrition (such as tube feeding), or discuss end-of-life choices <input type="checkbox"/> Document when weight loss or failure to gain weight is medically unavoidable
	<input type="checkbox"/> Evidence of change in hydration status	<input type="checkbox"/> Review medications, illnesses, conditions and other factors influencing hydration status <input type="checkbox"/> Provide additional hydration based on scope of fluid deficit, goals and prognosis
Functional status	<input type="checkbox"/> Limitations in functional status, mobility, seating and ability to relieve pressure	<input type="checkbox"/> Appropriate consultations and interventions to improve functional status, where feasible
Evidence of infection	<input type="checkbox"/> Signs and symptoms of soft-tissue infection present	<input type="checkbox"/> Initiate appropriate treatment as indicated
	<input type="checkbox"/> Factors indicating infection or increasing infection risk (sinus tract, fistula, tunneling, or undermining) observed or suspected	<input type="checkbox"/> Assess for possible surgical debridement
	<input type="checkbox"/> Evidence of significant colonization present	<input type="checkbox"/> Review and possibly expand wound debriding and cleansing methods
Pain	<input type="checkbox"/> Pain possibly related to wound	<input type="checkbox"/> Assess for local causes <input type="checkbox"/> Assess for other/additional causes of pain <input type="checkbox"/> Treat pain aggressively with adequate analgesia <input type="checkbox"/> Consider changing treatments that may be contributing to pain
Wound Management		
General		<input type="checkbox"/> Document appearance of wound bed and edges <input type="checkbox"/> Document type of ulcer, wound dimensions, and stage <input type="checkbox"/> Document amount of exudates
Location		<input type="checkbox"/> Document location of all ulcers <input type="checkbox"/> Identify and address problems and complications related to wound location, including urinary or fecal contamination

Necrotic (dead) tissue	<input type="checkbox"/> Necrotic tissue and slough present	<input type="checkbox"/> Document presence of necrotic tissue and slough <input type="checkbox"/> Select a debridement method
Pressure reduction	<input type="checkbox"/> Patient cannot maintain pressure reduction unaided	<input type="checkbox"/> Select and institute appropriate pressure reduction measures
Covering and protecting wound	<input type="checkbox"/> Open wound is present <input type="checkbox"/> Intact skin requires significant protection	<input type="checkbox"/> Select appropriate dressings and bandaging
Monitoring progress of wound healing	<input type="checkbox"/> Evidence of significant wound healing after 2 weeks treatment or revision of previous treatment	<input type="checkbox"/> Decide and document whether current treatment should continue or be modified
	<input type="checkbox"/> Little or no evidence of significant wound healing	<input type="checkbox"/> Assess for medical or mechanical factors that are inhibiting healing <input type="checkbox"/> Review for presence of underlying infection or cellulitis <input type="checkbox"/> Review possible need for more aggressive debridement <input type="checkbox"/> Review possible need for altered/additional nutritional interventions <input type="checkbox"/> Decide and document whether current treatment should continue or be modified <input type="checkbox"/> Consider adding or changing pressure reduction devices as indicated <input type="checkbox"/> Consider topical antibacterial therapies or adjunctive treatments
Protecting Intact Skin		
Intact skin	<input type="checkbox"/> Skin around ulcer is dry and intact <input type="checkbox"/> Skin around ulcer is moist but intact	<input type="checkbox"/> Control wound exudate; identify and treat its source <input type="checkbox"/> Consider using a skin protectant
	<input type="checkbox"/> Skin surrounding ulcer is moist and breaking down (macerated)	<input type="checkbox"/> Review for cause(s) such as urinary incontinence or possible infection or necrotic tissue producing copious exudate <input type="checkbox"/> Review possible role of current wound treatments in causing or contributing to skin breakdown <input type="checkbox"/> Use absorbent dressing as indicated
	<input type="checkbox"/> Skin in general is very dry	<input type="checkbox"/> Apply moisturizer in moderation, as indicated
General skin fragility	<input type="checkbox"/> Skin in general is thin, fragile, easily bruised	<input type="checkbox"/> Document that skin abnormality may predispose to skin breakdown <input type="checkbox"/> Assess for any additional measures needed to try to protect skin
Psychological Factors		
Lifestyle/habits	<input type="checkbox"/> Individual has lifestyle or habits that are affecting wound healing	<input type="checkbox"/> Document relevant issues and attempt to advise patient or adjust care plan accordingly
Ability to cooperate	<input type="checkbox"/> Patient is unwilling or unable to cooperate to some extent with treatment plan	<input type="checkbox"/> Document specific issues and attempt alternative approaches, if feasible

Braden Risk Assessment Scale

NOTE: Bed and chairbound individuals or those with impaired ability to reposition should be assessed upon admission for their risk of developing pressure ulcers. Patients with established pressure ulcers should be reassessed periodically.

Patient Name: _____ Room Number: _____ Date: _____

Sensory Perception	1. Completely Limited	2. Very Limited	3. Slightly Limited	4. No Impairment	Indicate Appropriate Numbers Below
Ability to respond meaningfully to pressure-related discomfort	Unresponsive (does not moan, flinch or grasp) to painful stimuli, due to diminished level of consciousness or sedation. OR limited ability to feel pain over most of body surface.	Responds only to painful stimuli. Cannot communicate discomfort except by moaning or restlessness. OR has a sensory impairment which limits the ability to feel pain or discomfort over 1/2 of body.	Responds to verbal commands, but cannot always communicate discomfort or need to be turned. OR has some sensory impairment which limits ability to feel pain or discomfort in 1 or 2 extremities.	Responds to verbal commands. Has no sensory deficit which would limit ability to feel or voice pain or discomfort.	
Moisture	1. Constantly Moist	2. Very Moist	3. Occasionally Moist	4. Rarely Moist	
Degree to which skin is exposed to moisture	Skin is kept moist almost constantly by perspiration, urine, etc. Dampness is detected every time patient is moved or turned.	Skin is often, but not always, moist. Linen must be changed at least once a shift.	Skin is occasionally moist, requiring an extra linen change approximately once a day.	Skin is usually dry. Linen only requires changing at routine intervals.	
Activity	1. Bedfast	2. Chairfast	3. Walks Occasionally	4. Walks Frequently	
Degree of physical activity	Confined to bed.	Ability to walk severely limited or non-existent. Cannot bear own weight and/or must be assisted into chair or wheelchair.	Walks occasionally during day, but for very short distances, with or without assistance. Spends majority of each shift in bed or chair.	Walks outside the room at least twice a day and inside room at least once every 2 hours during waking hours.	
Mobility	1. Completely Immobile	2. Very Limited	3. Slightly Limited	4. No Limitations	
Ability to change and control body position	Does not make even slight changes in body or extremity position without assistance.	Makes occasional slight changes in body or extremity position but unable to make frequent or significant changes independently.	Makes frequent though slight changes in body or extremity position independently.	Makes major and frequent changes in position without assistance.	
Nutrition	1. Very Poor	2. Probably Inadequate	3. Adequate	4. Excellent	
Usual food intake pattern	Never eats a complete meal. Rarely eats more than 1/3 of any food offered. Eats 2 servings or less of protein (meat or dairy products) per day. Takes fluids poorly. Does not take a liquid dietary supplement. OR is NPO and/or maintained on clear liquids or I.V.'s for more than 5 days.	Rarely eats a complete meal and generally eats only about 1/2 of any food offered. Protein intake includes only 3 servings of meat or dairy products per day. Occasionally will take a dietary supplement. OR receives less than optimum amount of liquid diet or tube feeding.	Eats over half of most meals. Eats a total of 4 servings of protein (meat, dairy products) each day. Occasionally will refuse a meal, but will usually take a supplement if offered. OR is on a tube feeding or TPN regimen which probably meets most of nutritional needs.	Eats most of every meal. Never refuses a meal. Usually eats a total of 4 or more servings of meat and dairy products. Occasionally eats between meals. Does not require supplementation.	
Friction and Shear	1. Problem	2. Potential Problem	3. No Apparent Problem		
	Requires moderate to maximum assistance in moving. Complete lifting without sliding against sheets is impossible. Frequently slides down in bed or chair, requiring frequent repositioning with maximum assistance. Spasticity, contractures or agitation lead to almost constant friction.	Moves feebly or requires minimum assistance. During a move, skin probably slides to some extent against sheets, chair restraints, or other devices. Maintains relatively good position in chair or bed most of the time, but occasionally slides down.	Moves in bed and in chair independently and has sufficient muscle strength to lift up completely during move. Maintains good position in bed or chair at all times.		
NOTE: Patients with a total score of 16 or less are considered to be at risk of developing pressure ulcers. (15 or 16 = low risk; 13 or 14 = moderate risk; 12 or less = high risk)					Total Score:

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<p>AT RISK (15-18)*</p> <p>FREQUENT TURNING MAXIMAL REMOBILIZATION PROTECT HEELS MANAGE MOISTURE, NUTRITION AND FRICTION AND SHEAR PRESSURE-REDUCTION SUPPORT SURFACE IF BED- OR CHAIR-BOUND</p> <p>* If other major risk factors are present <i>(advanced age, fever, poor dietary intake of protein, diastolic pressure below 60, hemodynamic instability)</i> advance to next level of risk</p>	<p>MANAGE MOISTURE</p> <p>USE COMMERCIAL MOISTURE BARRIER USE ABSORBANT PADS OR DIAPERS THAT WICK & HOLD MOISTURE ADDRESS CAUSE IF POSSIBLE OFFER BEDPAN/URINAL AND GLASS OF WATER IN CONJUNCTION WITH TURNING SCHEDULES</p>
<p>MODERATE RISK (13-14)*</p> <p>TURNING SCHEDULE USE FOAM WEDGES FOR 30E LATERAL POSITIONING PRESSURE-REDUCTION SUPPORT SURFACE MAXIMAL REMOBILIZATION PROTECT HEELS MANAGE MOISTURE, NUTRITION AND FRICTION AND SHEAR</p> <p>* If other major risk factors present, advance to next level of risk</p>	<p>MANAGE NUTRITION</p> <p>INCREASE PROTEIN INTAKE INCREASE CALORIE INTAKE TO SPARE PROTEINS. SUPPLEMENT WITH MULTI-VITAMIN (SHOULD HAVE VIT A, C & E) ACT QUICKLY TO ALLEVIATE DEFICITS CONSULT DIETITIAN</p>
<p>HIGH RISK (10-12)</p> <p>INCREASE FREQUENCY OF TURNING SUPPLEMENT WITH SMALL SHIFTS PRESSURE REDUCTION SUPPORT SURFACE USE FOAM WEDGES FOR 30E LATERAL POSITIONING MAXIMAL REMOBILIZATION PROTECT HEELS MANAGE MOISTURE, NUTRITION AND FRICTION AND SHEAR</p>	<p>MANAGE FRICTION & SHEAR</p> <p>ELEVATE HOB NO MORE THAN 30E USE TRAPEZE WHEN INDICATED USE LIFT SHEET TO MOVE PATIENT PROTECT ELBOWS & HEELS IF BEING EXPOSED TO FRICTION</p>
<p>VERY HIGH RISK (9 or below)</p> <p>ALL OF THE ABOVE + USE PRESSURE-RELIEVING SURFACE IF PATIENT HAS INTRACTABLE PAIN OR SEVERE PAIN EXACERBATED BY TURNING OR ADDITIONAL RISK FACTORS</p> <p>*low air loss beds do not substitute for turning schedules</p>	<p>OTHER GENERAL CARE ISSUES</p> <p>NO MASSAGE OF REDDENED BONY PROMINENCES NO DO-NUT TYPE DEVICES MAINTAIN GOOD HYDRATION AVOID DRYING THE SKIN</p>

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PUSH Tool 3.0

Patient Name: _____ Patient ID#: _____

Ulcer Location: _____ Date: _____

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	0	1	2	3	4	5	
	0 cm ²	<0.3 cm ²	0.3-0.6 cm ²	0.7-1.0 cm ²	1.1-2.0 cm ²	2.1-3.0 cm ²	
x Width		6	7	8	9	10	Sub-score
		3.1- 4.0 cm ²	4.1-8.0 cm ²	8.1-12.0 cm ²	12.1-24.0 cm ²	>24.0 cm ²	
Exudate Amount	0	1	2	3			Sub-score
	None	Light	Moderate	Heavy			
Tissue Type	0	1	2	3	4		Sub-score
	Closed	Epithelial Tissue	Granulation Tissue	Slough	Necrotic Tissue		
							Total Score

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 (cm²). **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).

Version 3.0: 9/15/98

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PRESSURE ULCER HEALING CHART
(To Monitor Trends in PUSH Scores Over Time)

(use a separate page for each pressure ulcer)

Patient Name: _____ Patient ID#: _____

Ulcer Location: _____ Date: _____

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

PRESSURE ULCER HEALING RECORD												
DATE	.	.	.	.	.	.	.	.	.	.	.	.
Length x Width	.	.	.	.	.	.	.	.	.	.	.	.
Exudate Amount	.	.	.	.	.	.	.	.	.	.	.	.
Tissue Type	.	.	.	.	.	.	.	.	.	.	.	.
Total Score	.	.	.	.	.	.	.	.	.	.	.	.

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

PRESSURE ULCER HEALING GRAPH													
PUSH Total Score													
17													
16													
15													
14													
13													
12													
11													
10													
9													
8													
7													
6													
5													
4													
3													
2													
1													
Healed 0													
DATE													

PUSH Tool Version 3.0: 9/15/98

Instructions for Using the PUSH Tool

To use the PUSH Tool, the pressure ulcer is assessed and scored on the three elements in the tool:

- Length x Width --> scored from 0 to 10
- Exudate Amount ---> scored from 0 (none) to 3 (heavy)
- Tissue Type ---> scored from 0 (closed) to 4 (necrotic tissue)

In order to insure consistency in applying the tool to monitor wound healing, definitions for each element are supplied at the bottom of the tool.

Step 1: Using the definition for length x width, a centimeter ruler measurement is made of the greatest head to toe diameter. A second measurement is made of the greatest

width (left to right). Multiple these two measurements to get square centimeters and then select the corresponding category for size on the scale and record the score.

Step 2: Estimate the amount of exudate after removal of the dressing and before applying any topical agents. Select the corresponding category for amount & record the score.

Step 3: Identify the type of tissue. **Note:** if there is ANY necrotic tissue, it is scored a 4. Or, if there is ANY slough, it is scored a 3, even though most of the wound is covered with granulation tissue.

Step 4: Sum the scores on the three elements of the tool to derive a total PUSH Score.

Step 5: Transfer the total score to the Pressure Ulcer Healing Graph. Changes in the score over time provide an indication of the changing status of the ulcer. If the score goes down, the wound is healing. If it gets larger, the wound is deteriorating.