

AMITY

HEALTHCARE GROUP

Wound assessment, home care

Revised: February 17, 2022

■ Introduction

A thorough wound assessment should consist of objective criteria and measurements that promote accurate, consistent comparisons to determine the extent of the wound and the effectiveness of wound healing. Comprehensive wound assessment is necessary during every dressing change and includes data on wound type, location, drainage, color, size and shape, presence of tunneling, condition of the wound edges, and condition of the surrounding tissue. Comparing assessment results to previous findings helps to monitor, communicate, treat, and document wound healing progression or complications.¹

■ Equipment

- Fluid-impermeable pads
- Sealable waterproof trash bag
- Gloves
- Normal saline solution
- Disposable wound-measuring device
- Sterile cotton-tipped applicator
- Gauze pads
- Dressing supplies
- Written educational materials
- Agency-approved pain assessment tool
- Optional: prescribed pain medication, personal protective equipment, sterile-tipped measuring device, prescribed wound cleanser, prescribed topical wound treatments

■ Preparation of Equipment

Inspect all equipment and supplies. If a product is expired, is defective, or has compromised integrity, remove it from patient use, label it as expired or defective, and report the expiration or defect as directed by your agency.

■ Implementation

- Review referral information, care plan, and prior visit documentation, if available. Note the type of wound, prior assessment data, and past and current interventions used for the patient's wound and their effectiveness.^{1 2}
- Verify the practitioner's orders.^{3 4 5 6}
- Gather and prepare the necessary equipment and supplies.
- Introduce yourself and state the purpose of your visit.
- Confirm the patient's identity using at least two patient identifiers.⁷
- Ask the patient and family (if appropriate) about any recent changes in the patient's health status, including practitioner visits, tests, or changes in medications, diet, or activity level.²
- Perform hand hygiene.^{8 9 10 11 12}
- Explain the procedure to the patient and family (if appropriate) according to their individual communication and learning needs *to increase their understanding, allay their fears, and enhance cooperation.*^{13 14 15 16}
- Screen for and assess the patient's pain using agency-defined criteria that are consistent with the patient's age, condition, and ability to understand.¹⁷
- *Because wound care can be painful*, ensure that the patient is premedicated with the prescribed pain medication.¹ If not, administer pain medication, as needed and prescribed, following safe medication administration practices¹⁸ and allow adequate time for the medication to take effect. Also use nonpharmacologic pain management strategies, as needed.¹⁷

- Organize equipment and supplies on a clean surface. Place a fluid-impermeable pad between the environment and equipment, if necessary.^{[8][19]} Arrange the equipment and supplies according to their order of use *to avoid cross-contamination while performing wound care.*^[20]
- Place a sealable waterproof trash bag within reach *to discard soiled dressings.*
- Perform hand hygiene.^{[8][9][10][11][12]}
- Put on gloves and, as needed, other personal protective equipment *to comply with standard precautions.*^{[8][21][22][23][24]}
- Assist the patient to a position that maximizes comfort while allowing easy access to the wound. Expose only the wound and surrounding area *to maintain warmth and privacy.*^[25]
- Place a fluid-impermeable pad under the wound *to prevent soiling.*
- Remove the old dressing carefully by pulling it gently on a horizontal plane away from the patient's skin while simultaneously stabilizing the patient's skin *to avoid tearing the skin.*^[26] If necessary, loosen the old dressing using a small amount of normal saline solution *to decrease the pain of removal and trauma to the skin and wound.*
- Inspect the soiled dressing and note the type and amount of drainage. (See [Wound drainage descriptors.](#))^[1]

WOUND DRAINAGE DESCRIPTORS

During the removal of a patient's wound dressing, inspect the dressing to evaluate the type and amount of wound drainage.

Type

- Serous: clear or light yellow with a thin, watery consistency
- Sanguineous: red with a thin consistency
- Serosanguineous: pink to light red with a thin, watery consistency
- Purulent: opaque white, yellow, green, tan with a thick consistency

Amount

- None
- Scant: drainage covers less than $\frac{1}{3}$ of the dressing surface
- Moderate: drainage covers between $\frac{1}{3}$ and $\frac{2}{3}$ of the dressing surface
- Large: drainage covers more than $\frac{2}{3}$ of the dressing surface

- Discard the soiled dressing in the waterproof trash bag.^[23]
- Remove and discard your soiled gloves, perform hand hygiene, and put on new gloves.^{[8][9][10][11][12][21][22][23][24]}
- Observe the general condition of the wound. Note the type of the wound, anatomic location, shape and, if present, odor.^[1] (See [Types of wounds common in home care.](#))

TYPES OF WOUNDS COMMON IN HOME CARE

Wounds commonly managed in home care include pressure injuries, arterial leg and foot ulcers, venous leg ulcers, diabetic foot ulcers, skin tears, and surgical wounds.

Pressure injuries

Pressure injuries (shown below) are areas of localized damage to the skin or underlying soft tissue or both, usually over a bony prominence (such as the sacrum, heels, or elbows) or related to a medical or other device. Pressure injuries can develop as a result of intense or prolonged pressure or pressure combined with shearing force.



©M. Bates-Jensen

Arterial leg and foot ulcers

Arterial leg and foot ulcers (shown below) are ischemic wounds resulting from poor blood flow to the lower extremities, usually from atherosclerosis or occlusion. *Because of poor perfusion*, these wounds are very painful and may result in necrosis and gangrene.



Venous leg ulcers

Venous leg ulcers (shown below) are wounds that result from venous insufficiency or stasis. When blood pools in the lower extremities, an inflammatory process occurs, resulting in platelet aggregation, endothelial damage, edema and, ultimately, wound formation.



Diabetic foot ulcers

Diabetic foot ulcers (shown below) are wounds that occur on the feet of patients with diabetes complications (peripheral vascular disease and neuropathy). These wounds commonly become infected and may require amputation.



Skin tears

Skin tears (shown below) are traumatic wounds that occur when friction or shearing force separates the epidermis from the dermis (partial-thickness wound) or separates both the epidermis and dermis from the underlying tissue (full-thickness wound), leaving a skin flap.



©ISTAP 2014

Surgical wounds

Surgical wounds managed in the home typically include those that are slow to heal, have drains or sutures, or have partially or completely dehisced (as shown below).



- Assess the color of the wound using the red-yellow-black classification system *to determine the types of tissue present in the wound*. If two or three colors are present, classify the wound by the least healthy color. (See [Wound color](#).)

WOUND COLOR

The red-yellow-black classification system is a common approach to wound assessment that can help determine the types of tissue present in the wound and gauge the progress of wound healing.

Red

Red, the color of healthy granulation tissue, indicates normal healing. When a wound begins to heal, a layer of pale pink granulation tissue covers the wound bed. As this layer thickens, it becomes beefy red (as shown

below). Considerations for this type of wound include keeping the wound moist and clean and protecting it from trauma.



Yellow

Yellow is the color of exudate produced by microorganisms in an open wound. When a wound heals without complications, the immune system removes microorganisms. However, if there are too many microorganisms to remove, exudate accumulates and becomes visible (as shown below). Exudate usually appears whitish yellow, creamy yellow, yellowish green, or beige. Dry exudate appears darker.



Black

Black, the least healthy wound color, signals necrosis (as shown below). Dead, avascular tissue slows healing and provides a site for proliferation of microorganisms. Removal of eschar is necessary to determine an accurate wound depth.



- Determine whether the wound is a partial-thickness or full-thickness wound:¹
 - A partial-thickness wound involves the epidermis and may extend into but not totally through the dermis.
 - A full-thickness wound extends through the dermis and may expose adipose tissue, muscle, or bone.
- Measure the wound's length and width with a disposable wound-measuring device (such as a paper ruler or square or a transparent card with concentric circles arranged in a bull's-eye fashion and bordered with a straight-edge ruler). Use a uniform, consistent method for measuring the wound *to facilitate meaningful comparisons for evaluating wound healing.*¹²⁷ (See [Measuring a wound.](#))

MEASURING A WOUND

The easiest, most common method for measuring a wound is the linear method using a paper or plastic ruler marked in centimeters or millimeters. To use this method, measure the longest area of the wound using head-to-toe orientation; then measure the widest width, perpendicular to the length (as shown below).



Describe your measurements using the face of a clock; use a 12-to-6 direction for the length and a 3-to-9 direction for the width. You can also use a transparent measuring guide with a measurement grid and disposable backing *to keep it sterile*.^[27]

Multiply wound length by wound width to obtain the overall wound measurement, which you can use to evaluate wound care outcomes. After obtaining two overall wound measurements, you can calculate the percentage of wound reduction (and subsequent healing) from the time of the first measurement. Use this formula to calculate the percentage of wound reduction:

Percent reduction = (initial wound surface area [length × width] – current wound surface area) ÷ initial wound surface area × 100.^[27]

- Determine the wound's depth by placing a sterile cotton-tipped applicator into the deepest portion of the wound *and* then comparing the depth to the wound-measuring device. Alternatively, use a sterile measuring device.^{[1][28]}
- Assess for and measure wound tunneling by probing the wound bed gently with a gloved finger or cotton-tipped applicator moistened with normal saline solution and then comparing the depth to the wound-measuring device. *Be sure to note the relative location of the wound tunneling.* Alternatively, use a sterile measuring device.^{[1][28]}
- Assess the condition of the wound edges for attachment, regeneration of the epidermis (epithelialization), rolling (epibole), and undermining. If undermining is present, measure it by probing the wound edge gently with a gloved finger or cotton-tipped applicator moistened with normal saline solution and then comparing the depth to the wound-measuring device. *Be sure to note the relative location of the undermining.*^[1]
- Assess the surrounding areas of skin for intactness, erythema or other discoloration, moisture (maceration or desiccation), temperature, edema, and firmness (induration or boggy). Measure and record these areas, denoting them as surrounding tissue findings but not as part of the wound itself.^[1]
- Use a staging or classification system designed for the specific wound type *to assess the severity of the wound.* For example, if the wound is a pressure injury, use the classification system developed by the National Pressure Injury Advisory Panel at <https://npiap.com/page/PressureInjuryStages>.
- Classify the wound as acute or chronic. Consider the date of onset, etiology of the wound, type of wound, and progress in healing. Use caution when making your determination *because you can't base it solely on time; guidelines specify no set time frame to define when an acute wound becomes chronic.*^[1]
- Clean the wound with gauze moistened with normal saline solution or other prescribed wound cleanser, apply topical wound treatments (if prescribed), and redress the wound, as ordered. (See the "[Wound dressing application, home care](#)" procedure.)
- Seal the waterproof trash bag and discard used supplies in appropriate receptacles.^{[22][23][29][30]}
- Remove and discard your gloves and other personal protective equipment, if worn.^[23]
- Perform hand hygiene.^{[8][9][10][11][12]}

- Reassess and respond to the patient's pain by evaluating the response to treatment and progress toward pain management goals. Assess for adverse reactions and risk factors for adverse events that may result from treatment.^[17]
- Review progress toward the goals in the patient's care plan with the patient and family, as appropriate.^[2]^[31]
- Make arrangements for the next visit, as appropriate, and ensure that the patient and family have adequate supplies for self-care until then.
- Provide and review written educational materials, the visit schedule, and contact information should concerns arise between visits.^[32]^[33]^[34]^[35]
- Report changes in the patient's condition and progress toward goals to the patient's practitioner, as appropriate.^[36]^[37]^[38]^[39]
- Coordinate care with other services, such as a wound, ostomy, and continence nurse, as appropriate.^[40]^[41]^[42]^[43]
- Document the procedure.^[44]^[45]^[46]^[47]

■ Special Considerations

- Photography may be used as an adjunctive method for documentation *to provide a visual record of the wound and surrounding tissue*. If you're using photography, be sure to label it with the patient's identifiers and the date and time it was taken. Also include a measuring device in the photograph *to indicate the actual size of the wound*.^[1]
- Sterile technique may be required to assess the wound and perform wound care in select clinical situations, such as in surgical wounds that have dehisced or in patients who are at increased risk for infection.^[20]^[48]

■ Patient Teaching

Teach the patient and family (if appropriate) about the normal healing process. Discuss the causes of wounds as well as the strategies used to manage them, including pain management, skin care, repositioning, and adequate nutrition and hydration. Instruct the patient and family to notify the practitioner if wound symptoms (such as pain, drainage, and odor) worsen despite treatment or if signs of a systemic infection (such as fever and chills) develop.^[49]

■ Complications

Wound care can cause pain, tissue injury, bleeding, and infection.

■ Documentation

Record the date and time of wound assessment. Document your assessment of the wound, including type and general condition; anatomic location; type and amount of drainage; presence of odor, color, size, and shape; presence of tunneling; condition of the wound edges; and condition of the surrounding tissue. Also document the patient's pain assessments, tolerance of the procedure, and any interventions implemented, including medications administered. If you contacted the practitioner, record the date, the time, and the information conveyed as well as any information received. Document teaching provided to the patient and family (if applicable), their understanding of that teaching, and any need for follow-up teaching.

This procedure has been co-developed and reviewed by
the National Association for Home Care & Hospice.



■ Related Procedures

- [Traumatic abrasion wound care](#)
- [Traumatic abrasion wound care, ambulatory care](#)
- [Traumatic amputation wound care](#)
- [Traumatic bite wound care, ambulatory care](#)

- [Traumatic laceration wound care](#)
- [Traumatic puncture wound care](#)
- [Traumatic puncture wound care, ambulatory care](#)
- [Traumatic simple laceration wound care, ambulatory care](#)
- [Wound palliative care, home care](#)

■ References

([Rating System for the Hierarchy of Evidence for Intervention/Treatment Questions](#))

1. Baranoski, S., & Ayello, E. A. (2020). *Wound care essentials: Practice principles* (5th ed.). Wolters Kluwer.
2. Community Health Accreditation Partner. (2018, updated 2019). Standard PC.7.I.M1. *Home health standards of excellence*. (Level VII)
3. Accreditation Commission for Health Care (ACHC). (2021). Standard HH5-3B. *ACHC accreditation standards*. (Level VII)
4. Community Health Accreditation Partner. (2018, updated 2019). Standard CDT.4.I.M1. *Home health standards of excellence*. (Level VII)
5. Centers for Medicare and Medicaid Services. (2020). Condition of participation: Care planning, coordination of services, and quality of care. 42 C.F.R. § 484.60(b)(1).
6. The Joint Commission. (2022). Standard PC.02.01.03. *Comprehensive accreditation manual for home care*. (Level VII)
7. The Joint Commission. (2022). Standard NPSG.01.01.01. *Comprehensive accreditation manual for home care*. (Level VII)
8. Accreditation Commission for Health Care (ACHC). (2021). Standard HH7-1A. *ACHC accreditation standards*. (Level VII)
9. Centers for Disease Control and Prevention. (2002). Guideline for hand hygiene in health-care settings: Recommendations of the Healthcare Infection Control Practices Advisory Committee and the HICPAC/SHEA/APIC/IDSA Hand Hygiene Task Force. *MMWR Recommendations and Reports*, 51(RR-16), 1–45. Retrieved January 2022 from <https://www.cdc.gov/mmwr/pdf/rr/rr5116.pdf> (Level II)
10. Community Health Accreditation Partner. (2018, updated 2019). Standard IPC.3.I.M1. *Home health standards of excellence*. (Level VII)
11. The Joint Commission. (2022). Standard NPSG.07.01.01. *Comprehensive accreditation manual for home care*. (Level VII)
12. World Health Organization (WHO). (2009). *WHO guidelines on hand hygiene in health care: First global patient safety challenge, clean care is safer care*. Retrieved January 2022 from https://apps.who.int/iris/bitstream/handle/10665/44102/9789241597906_eng.pdf?sequence=1 (Level IV)
13. Accreditation Commission for Health Care (ACHC). (2021). Standard HH2-8A. *ACHC accreditation standards*. (Level VII)
14. Community Health Accreditation Partner. (2018, updated 2019). Standard PC.8.I.M1. *Home health standards of excellence*. (Level VII)
15. Centers for Medicare and Medicaid Services. (2020). Condition of participation: Patient rights. 42 C.F.R. § 484.50(f).
16. The Joint Commission. (2022). Standard RI.01.01.03. *Comprehensive accreditation manual for home care*. (Level VII)
17. The Joint Commission. (2022). Standard PC.01.02.07. *Comprehensive accreditation manual for home care*. (Level VII)
18. The Joint Commission. (2022). Standard MM.06.01.01. *Comprehensive accreditation manual for home care*. (Level VII)
19. Community Health Accreditation Partner. (2018, updated 2019). Standard IPC.6.I.M1. *Home health standards of excellence*. (Level VII)
20. Wound, Ostomy, and Continence Nurses Society. (2012). Clean vs. sterile dressing techniques for management of chronic wounds: A fact sheet. *Journal of Wound, Ostomy, and Continence Nursing*, 39(2S), S30–S34. Retrieved January 2022 from https://journals.lww.com/jwocnonline/fulltext/2012/03001/clean_vs_sterile_dressing_techniques_for.7.aspx (Level VII)

21. Community Health Accreditation Partner. (2018, updated 2019). Standard IPC.1.I.M1. *Home health standards of excellence*. (Level VII)
22. The Joint Commission. (2022). Standard IC.02.01.01. *Comprehensive accreditation manual for home care*. (Level VII)
23. Occupational Safety and Health Administration. (2012). *Bloodborne pathogens, standard number 1910.1030*. Retrieved January 2022 from <https://www.osha.gov/laws-regs/regulations/standardnumber/1910/1910.1030> (Level VII)
24. Siegel, J. D., et al. (2007, revised 2019). *2007 guideline for isolation precautions: Preventing transmission of infectious agents in healthcare settings*. Retrieved January 2022 from <https://www.cdc.gov/infectioncontrol/pdf/guidelines/isolation-guidelines-H.pdf> (Level II)
25. The Joint Commission. (2022). Standard RI.01.01.01. *Comprehensive accreditation manual for home care*. (Level VII)
26. Taroc, A. (2017). A guide for adhesive removal: Principles, practice and products. *American Nurse Today*, 12(10), 24–26. Retrieved January 2022 from <https://www.myamericannurse.com/adhesive-removal/>
27. Rijswijk, L. V. (2013). Wound wise: Measuring wounds to improve outcomes. *American Journal of Nursing*, 113(8), 60–61. Retrieved January 2022 from https://www.nursingcenter.com/journalarticle?Article_ID=1575606&Journal_ID=54030&Issue_ID=1575434
[Abstract](#) | [Complete Reference](#)
28. European Pressure Ulcer Advisory Panel, et al. (2019). *Prevention and treatment of pressure ulcers/injuries: Quick reference guide*. Retrieved January 2022 from http://www.internationalguideline.com/static/pdfs/Quick_Reference_Guide-10Mar2019.pdf (Level VII)
29. Accreditation Commission for Health Care (ACHC). (2021). Standard HH7-6B.01. *ACHC accreditation standards*. (Level VII)
30. Community Health Accreditation Partner. (2018, updated 2019). Standard IPC.6.I.M2. *Home health standards of excellence*. (Level VII)
31. Accreditation Commission for Health Care (ACHC). (2021). Standard HH5-3A. *ACHC accreditation standards*. (Level VII)
32. Accreditation Commission for Health Care (ACHC). (2021). Standard HH5-3C. *ACHC accreditation standards*. (Level VII)
33. Community Health Accreditation Partner. (2018, updated 2019). Standard PC.8.I.M3. *Home health standards of excellence*. (Level VII)
34. Centers for Medicare and Medicaid Services. (2020). Condition of participation: Care planning, coordination of services, and quality of care. 42 C.F.R. § 484.60(e).
35. The Joint Commission. (2022). Standard PC.02.03.01. *Comprehensive accreditation manual for home care*. (Level VII)
36. Accreditation Commission for Health Care (ACHC). (2021). Standard HH5-8B. *ACHC accreditation standards*. (Level VII)
37. Community Health Accreditation Partner. (2018, updated 2019). Standard PC.9.I.M3. *Home health standards of excellence*. (Level VII)
38. Centers for Medicare and Medicaid Services. (2020). Condition of participation: Care planning, coordination of services, and quality of care. 42 C.F.R. § 484.60(c)(1).
39. The Joint Commission. (2022). Standard PC.02.01.05. *Comprehensive accreditation manual for home care*. (Level VII)
40. Accreditation Commission for Health Care (ACHC). (2021). Standard HH5-4A. *ACHC accreditation standards*. (Level VII)
41. Community Health Accreditation Partner. (2018, updated 2019). Standard PC.9.I.M4. *Home health standards of excellence*. (Level VII)
42. Centers for Medicare and Medicaid Services. (2020). Condition of participation: Care planning, coordination of services, and quality of care. 42 C.F.R. § 484.60(d)(3).
43. The Joint Commission. (2022). Standard PC.02.02.01. *Comprehensive accreditation manual for home care*. (Level VII)
44. Accreditation Commission for Health Care (ACHC). (2021). Standard HH5-1A. *ACHC accreditation standards*. (Level VII)

45. Community Health Accreditation Partner. (2018, updated 2019). Standard IM.7.I.M1. *Home health standards of excellence*. (Level VII)
46. Centers for Medicare and Medicaid Services. (2020). Condition of participation: Clinical records. 42 C.F.R. § 484.110(a).
47. The Joint Commission. (2022). Standard RC.01.03.01. *Comprehensive accreditation manual for home care*. (Level VII)
48. Kent, D. J., et al. (2018). Does the use of clean or sterile dressing technique affect the incidence of wound infection? *Journal of Wound, Ostomy, and Continence Nursing*, 45(3), 265–269. Retrieved January 2022 from <https://nursing.ceconnection.com/ovidfiles/00152192-201805000-00009.pdf> (Level I)
49. Kirkland-Kyhn, H., et al. (2018). Teaching wound care to family caregivers. *American Journal of Nursing*, 118(3), 63–67. Retrieved January 2022 from https://journals.lww.com/ajnonline/fulltext/2018/03000/teaching_wound_care_to_family_caregivers.29.aspx

■ Additional References

- Centers for Medicare and Medicaid Services. (2019). *Outcome and assessment information set: OASIS-D guidance manual*. Retrieved January 2022 from <https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/HomeHealthQualityInits/Downloads/OASIS-D-Guidance-Manual-final.pdf>
- Cox, J. (2019). Wound care 101. *Nursing*, 49(10), 32 –39. Retrieved January 2022 from https://journals.lww.com/nursing/Fulltext/2019/10000/Wound_Care_101.10.aspx
- Daley, B. J. (2020). *Wound care treatment & management*. Retrieved January 2022 from <https://emedicine.medscape.com/article/194018-treatment>

Rating System for the Hierarchy of Evidence for Intervention/Treatment Questions

The following leveling system is from *Evidence-Based Practice in Nursing and Healthcare: A Guide to Best Practice* (2nd ed.) by Bernadette Mazurek Melnyk and Ellen Fineout-Overholt.

- Level I: Evidence from a systematic review or meta-analysis of all relevant randomized controlled trials (RCTs)
- Level II: Evidence obtained from well-designed RCTs
- Level III: Evidence obtained from well-designed controlled trials without randomization
- Level IV: Evidence from well-designed case-control and cohort studies
- Level V: Evidence from systematic reviews of descriptive and qualitative studies
- Level VI: Evidence from single descriptive or qualitative studies
- Level VII: Evidence from the opinion of authorities and/or reports of expert committees

Modified from Guyatt, G. & Rennie, D. (2002). Users' Guides to the Medical Literature. Chicago, IL: American Medical Association; Harris, R.P., Helfand, M., Woolf, S.H., Lohr, K.N., Mulrow, C.D., Teutsch, S.M., et al. (2001). Current Methods of the U.S. Preventive Services Task Force: A Review of the Process. American Journal of Preventive Medicine, 20, 21-35.

IP Address: 107.2.190.2, Server: AUSE1PLNSWEB2.WKRainier.com
Version: 02.01.01.002
Session: 340964DDB73BD87B8F2C21A3F1C5ECB0

©2022 Wolters Kluwer Health, Inc. and/or its subsidiaries. All rights reserved. License Agreement & Disclaimer Privacy Statement