



# PRESSURE ULCER PREVENTION:

## Training Module

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# About This Module

**T**his training module presents instructions and tools for preventing pressure ulcers in nursing home residents. It starts with a list of objectives. Following that is a discussion of the problem, with a summary of its solution.

The next three sections present procedures for the following:

- Pressure ulcer risk assessment
- Preventive care
- Wound assessment

Elsewhere in this module - Links and Related Studies - we provide guidance and referrals to other resources to help you improve overall PU management within your facility.

## **CONTACT US**

We've tried to be comprehensive, but if there is something you can't find, or if you have unanswered questions, comments, or concerns, please feel free to contact us at the Center for Quality Aging:

Vanderbilt University Medical Center  
Center for Quality Aging  
1611 21<sup>st</sup> Ave South Rm S1121  
Medical Center North  
Nashville, TN 37232-2400  
[www.vanderbiltcqa.org](http://www.vanderbiltcqa.org)

# Learning Objectives

**A**t the end of this training module, you will be able to:

- Explain why pressure ulcer (PU) care is of continuing concern to federal nursing home regulators.
- Demonstrate knowledge of the recommended frequency for PU risk assessments and give the rationale for this recommendation.
- Describe at least two validated instruments for assessing pressure ulcer risk.
- Exercise clinical decision making over which PU risk residents are regularly reassessed.
- List three recommended interventions for preventing pressure ulcers.
- Conduct a performance assessment that identifies residents who can reposition themselves independently and explain the importance of this assessment.
- Demonstrate knowledge of the clinical importance of wound assessment.

All procedures presented in this module are in accordance with the federal regulations that govern nursing home care and best practice guidelines for pressure ulcer prevention.

## Step 1: Overview

How is pressure ulcer care actually delivered in nursing homes? This overview lays the foundation for improving care and meeting federal standards in your facility.

### WHAT WE KNOW ABOUT PRESSURE ULCER CARE—A LOT

**A** current count shows there are seven clinical practice guidelines on pressure ulcer care:

- “[Pressure Ulcer Prevention](#)” and “[Pressure Ulcer Treatment](#),” both available from the Agency for Healthcare Research and Quality
- “Pressure Ulcers” and “Pressure Ulcer Therapy Companion,” both available from the [American Medical Directors Association](#)
- “[Prevention of Pressure Ulcers](#),” by and available from the Gerontological Nursing Interventions Research Center, Research Dissemination Core
- “Guideline for the Prevention and Management of Pressure Ulcers,” by and available from the [Wound, Ostomy, and Continence Nurses Society](#), Glenview, IL.
- “[Pressure Ulcer Prevention and Treatment following Spinal Cord Injury: A Clinical Practice Guideline for Health-Care Professionals](#),” by and available from the Paralyzed Veterans of America, Washington, D.C.

There also are three validated, published pressure ulcer risk assessment instruments:

- [Braden Scale](#)
- [Gosnell Scale](#)
- [Norton Scale](#)

In addition, there is an evidence-based wound assessment tool:

- [PUSH Tool 3.0](#), available for free from the National Pressure Ulcer Advisory Panel

These guidelines and tools are a testament to how much we know about how best to prevent, treat, and manage pressure ulcers (PU), or the lesions “caused by unrelieved pressure resulting in damage of underlying tissue (1).” Clearly we know a lot.

### WHAT WE DON'T KNOW ABOUT PRESSURE ULCER CARE IN NURSING HOMES—A LOT

Nationally, the prevalence of PU among nursing home residents is 14% (2) for high-risk individuals, but go up to 24% (3), both unacceptably high rates for a serious health problem often considered preventable. Not surprisingly, this costly, too common problem has fueled a rise in PU-related litigation. A report by LUMETRA (4) cites evidence that claims per occupied nursing home bed have increased at an annual rate of 14% while the average court settlement has risen to \$250,000.

The incidence and prevalence of pressure ulcers in nursing homes is high enough to have sparked concern among regulators, who consider PU rates a measure of the quality of care in nursing homes. As a result, publicly reported quality measures

now alert consumers to nursing homes with high PU prevalence rates. The problem is that, for all we know about ideal PU care, we do not yet know enough about how it actually is delivered in nursing homes.

## **WE DECIDE TO INVESTIGATE**

We know how to prevent, treat, and manage PUs. So where exactly is that care process breaking down in nursing homes? We decided to find out. The results of this investigation (5) and the recommendations they point to constitute the basis of this training module. We present this information in subsequent sections, but first we describe key features of the methodology we used, for as you will see, these strategies are echoed in our recommendations.

## **WE CONDUCTED OUR OWN ASSESSMENTS**

Although we used some secondary data sources, usually medical records, to evaluate PU care in nursing homes, we primarily collected information using our own eyes and ears (and then often used these data to verify information in the medical charts).

We conducted skin assessments, checked at regular intervals to see whether PU risk residents were lying or sitting on pressure reduction surfaces, used wireless thigh movement monitors to find out how often at-risk residents were repositioned, directly observed mealtimes, and asked residents about the incontinence care they received.

Although medical records and especially information from Minimum Data Set (MDS) assessments are widely used to evaluate quality of care in nursing homes, we have repeatedly found this information to be

inaccurate. Consequently, we try to use it sparingly, and then only in conjunction with data gleaned from other assessment strategies, such as resident reports and direct observations.

## **WE USED QUALITY INDICATORS TO EVALUATE CARE**

We used a series of 11 quality indicators (QI) related to PU care for nursing home residents. Presented as a series of if/then statements, these QIs outline the PU assessment and treatment process, thereby providing a basis for evaluating actual care practices.

It should be noted that these QIs are not, technically speaking, practice guidelines, though they are based closely on existing guidelines. Practice guidelines “aim to define optimal or ideal care in the context of complex decision-making,” writes RAND, the southern California think tank that helped us develop the QIs. In most nursing homes, however, optimal care is virtually synonymous with impossible care: it almost invariably requires more staff time than most nursing homes can afford and consequently cannot be implemented under usual conditions. So with a nod to real life, the QIs lower the bar. Explains RAND (6): They “set a minimal standard for acceptable care—*standards that, if not met, almost ensure that the care is of poor quality.*”

Based on expert opinion and existing best-practice guidelines, all of our QI-associated PU care tasks are *both* related to positive outcomes for residents *and* feasible for nursing home staff to implement.

## **OVERVIEW OF FINDINGS**

The study was led by Dr. John F. Schnelle and conducted in 16 nursing homes in Southern California. These facilities

comprised two groups: Six of them had scores among the lowest on the MDS quality indicator (QI) “prevalence of PU,” and the remaining 10 had scores among the highest on this QI. Presumably, differences in QI scores are explained by differences in the quality of care provided. Thus, low-prevalence homes supposedly provide better PU care than high-prevalence homes.

The results of this study disproved this assumption, however. The only difference between the two groups—and it was a small difference—is that the supposedly “bad” nursing homes were doing a *better* job of documenting wound characteristics and using pressure-reduction surfaces to prevent PU.

But what struck us as more important than the differences between these two groups were their similarities. All 16 nursing homes performed poorly on screening and preventing PUs, though they did better at management once a PU was present.

In the next section, we show you how to target pressure ulcer (PU) risk reassessments to residents at highest risk.

## REFERENCES:

See also our related studies.

1. Agency for Health Care Policy and Research. (1992). Pressure Ulcers in Adults: Prediction and Prevention. Quick Reference Guide for Clinicians No. 3. *AHCPR Pub. No. 92-0050*. Accessed 2/15/04.
2. Center for Medicare and Medicaid Services. Nursing Home Compare. National averages for each quality measure are listed on report cards for individual facilities. Accessed 3/18/04.
3. National Pressure Ulcer Advisory Panel. Pressure Ulcers in America: Prevalence, Incidence, and Implications for the Future. Accessed 3/18/04.
4. LUMETRA. (2003). Collaborative framework—Pressure Ulcer Management. In *Pressure Ulcer Management Nursing Home Handbook*.
5. Bates-Jensen, B.M. (2001). Quality Indicators for Prevention and Management of Pressure Ulcers in Vulnerable Elders. *Annals of Internal Medicine*, 135(8) Part 2: 744-751.
6. Bates-Jensen BM, Cadogan M, Osterweil D, Levy-Storms L, Jorge J, Al-Samarrai N, Grbic V, and Schnelle JF. The Minimum Data Set Pressure Ulcer Indicator: Does it Reflect Differences in Care Processes Related to Pressure Ulcer Prevention and Treatment in Nursing Homes? *Journal of the American Geriatrics Society*, 51:1203-1212.
7. Bates-Jensen BM, Cadogan M, Jorge J, and Schnelle JF. (2003). Standardized Quality Assessment System to Evaluate Pressure Ulcer Care in the Nursing Home. *Journal of the American Geriatrics Society*, 51: 1194-1202.
8. RAND. Quality Indicators for Prevention and Management of Pressure Ulcers in Vulnerable Elderly. Accessed 3/18/04.

## Step 2: Pressure Ulcer Risk Assessment

Learn how to target pressure ulcer (PU) risk re-assessments to residents at highest risk. Our system uses objective assessment data to improve clinical decision-making and shape PU care processes that are feasible to implement.

**“AN OUNCE OF PREVENTION IS WORTH A POUND OF CURE”**

Old as it is, this adage wisely sums up one of the major thrusts of efforts to improve pressure ulcer (PU) care in nursing homes. PU prevention can be done, and there are good reasons to do it:

1. For starters, most of us would agree that PU prevention is in the best interests of nursing home residents. After all, the clinical consequences of developing a PU are serious: increased morbidity and mortality, increased risk of infection as well as pain, depression, and stress. This should be reason enough to strengthen PU prevention efforts, but if it's not, consider this:
2. PU treatment is costly. A report by LUMETRA (1) cites evidence that PU treatment costs in nursing homes exceed \$355 million a year, and that estimate was calculated in 1997. Since then healthcare costs have spiraled up.
3. PU prevention is a better buy. Though by no means free, PU prevention can lower treatment costs

4. while improving clinical outcomes (2). Finally...
5. We've listed it fourth, but some nursing homes may consider it the number one reason to beef up PU prevention efforts: Inadequate PU prevention is one of the top two causes for malpractice litigation against nursing homes. A 1999 study found that adherence to PU prevention guidelines could have saved healthcare defendants \$11,389,989 in 20 lawsuits (3).

Given these compelling reasons to practice excellent PU prevention, it's unfortunate that such care is less than optimal in most nursing homes and downright substandard in many. Inadequate staffing is the usual defense against this charge, and it has some merit, for indeed most nursing homes have too few workers to provide proper care of residents (4) and insufficient reimbursement to hire more. But our recent research also suggests that nursing homes can make better use of the staff they have—and improve care—by targeting their services more appropriately and efficiently

### **MORE PU RISK RE-ASSESSMENTS NEEDED**

Let's start with risk assessment, the first step recommended in the PU prevention practice guidelines not to mention a federal requirement for nearly all nursing homes. Nursing homes are required to conduct a risk assessment for each new resident upon admission to determine whether the person is likely to develop a PU.

Practice guidelines recommend the use of a validated risk assessment tool such as the [Norton Scale](#) or the more widely used

[Braden Scale](#) (5, 6). Our research indicates that when nursing homes complete this step, and document the results, at-risk residents are more likely to get the preventive care they need (7). Roughly 60% of nursing homes conduct this entrance risk assessment and document it (7, 8), not a great showing given the importance of this step.

Where they really miss the mark, however, is with the corollary to this initial step. Though not a federal requirement, best practice guidelines call on nursing homes to **re-assess** at-risk residents, particularly those who are unable to reposition themselves or have limited ability to do so.

“The condition of an individual admitted to a health care facility is not static,” notes the guidelines from the Agency for Healthcare Research and Quality (6), “consequently, pressure ulcer risk requires routine re-examination.”

PU prevention guidelines from the University of Iowa Gerontological Nursing Interventions Research Center (5) recommend that at-risk nursing home residents be reassessed “every 48 hours for the first week, weekly for one month, then quarterly, or more frequently if (the resident’s) condition changes.”

## **BENEFITS OF REASSESSMENTS**

The rationale for reassessments is that if PUs are going to develop, they will usually develop within the first two to four weeks of a resident’s admission. In one study, for example, of 102 newly admitted nursing home residents, 28 developed PUs, all of them within four weeks of admission (9). In addition, findings from the reassessments can be used as a foundation for the resident’s skin care plan.

The point to understand is if you skip reassessments of at-risk residents, you’ll undermine your own prevention efforts.

It happens all the time. When a study led by Dr. John F. Schnelle included an evaluation of PU care in 16 nursing homes (see *Step 1* for background on this study), we called on facilities to conduct weekly reassessments of at-risk residents for four weeks. Any fewer reassessments of these residents equates to substandard care, according to multiple best practice guidelines. Results of this study showed that *none* of the facilities we evaluated passed this quality indicator. Worse yet, none of them even came close. We lowered the bar to two reassessments within the first four weeks of admission and still all the facilities failed.

## **EXPERIMENT WITH NEW PRACTICE PATTERNS**

**Pressure ulcer treatment is costly. One report cites evidence that PU treatment costs in nursing homes exceed \$355 million a year, and that estimate was calculated in 1997. Since then healthcare costs have spiraled up.**

Why the dismal failure rate? We can think of two possible reasons:

- Nursing home staff are unaware of the importance of PU risk re-assessments, and/or
- Insufficient numbers of licensed nurses make it difficult to complete re-assessments.

The first impediment is being addressed by this module. You -for one- now know better.

The staffing problem is considerably more difficult to resolve, and as such, demands an institutional willingness to experiment with new practice patterns. Ask yourself this: Would you rather devote staff time to PU prevention or PU treatment? Indications are that the more you do of the first, the less you'll do of the second—and vice versa. For all the reasons cited at the start of this section, we recommend devoting adequate staff time to delivering preventive care.

### **INSTITUTE A TRIAGE SYSTEM**

To help with PU prevention, consider implementing our “triage system”.

Be aware that this system has not been tested yet in a rigorous research trial. It is based on expert consensus and best practice guidelines and supported by the best available research and clinical evidence. At its heart is an understanding born of both clinical experience and applied research that many nursing homes, given current staffing ratios and reimbursement levels, simply cannot deliver all that we ask of them (though most can come closer than they do). Failure to acknowledge this may fuel widespread deception, as evidenced by the fact that nursing home workers often record care that they never actually provide (10, 11). This in turn can lead to poor clinical decision-making, for it discourages the use of objective targeting assessments, which strive to make abundantly clear who needs what (and may not be getting it).

Our triage system stands in contrast to the usual care practices in many nursing home facilities. It makes concerted use of objective assessment data so that you can improve clinical decision-making and, at the same time, shape a care process that is actually feasible to implement.

### **CONSIDER RISK ASSESSMENT SCORES AND REPOSITIONING ABILITY**

Institute a triage system that ensures that the highest risk residents are the first to receive the four weekly reassessments. This system should take into account two types of assessment data:

- The resident’s score on a standardized risk assessment conducted upon admission,

And

- The resident’s ability to reposition him- or herself.

With both the Braden and Norton scales, the two most commonly used assessment tools, the lower the resident’s score, the greater the risk of PU development.

### **WE RECOMMEND THE BRADEN SCALE**

Of these two scales, we recommend use of the [Braden Scale](#), largely because it has been more extensively tested in nursing homes. It also is commonly used in nursing home research; so if your facility follows suit, you can compare your results to those reported in published studies. The remainder of this section assumes the use of the Braden scale to assess PU risk.

### **TARGET REASSESSMENTS ACCORDING TO RISK LEVEL**

Nursing home residents with a Braden score of 18 or less on admission are considered to be “at risk” for PU (5). Ideally, all these at-risk residents should be re-assessed weekly for four weeks following admission. If the number of residents who meet this criterion and the licensed staff available to conduct

the assessments render this task impractical, then target first those residents at highest risk.

**Ask yourself this: Would you rather devote staff time to PU prevention or PU treatment? Indications are that the more you do of the first, the less you'll do of the second—and vice versa.**

- **Tier 1: Residents with Braden scores below 11**

New nursing home residents with Braden scores below 11 are considered to be at very high risk for PU. At the very least then, these new residents should be the first to receive the four weekly re-assessments, again using the Braden scale. Results of the re-assessments should guide the residents' care plans.

- **Tier 2: Residents with at-risk scores and limited mobility**

Primary risk factors for pressure ulcers are immobility and limited activity levels (6). Given this, the second-tier target group should be new residents with Braden scores between 18 and 11 who are chair-fast, bedbound, or unable to reposition themselves. This second-tier group is likely to include the most residents—and may include more residents than necessary because of a tendency among nursing home staff to underestimate the number of residents capable of independently repositioning themselves. Use our performance assessment, which was developed and validated by work led by Dr. John F. Schnelle, to accurately identify those who are unable to reposition themselves and thus who are at greater risk for PU. This assessment is also discussed in Step 3.

- **Tier 3: All other residents with at-risk Braden scores**

All other new residents with Braden scores of 18 or less ideally should be re-assessed weekly for four weeks. Those with greater mobility are less at risk, but if their Braden score signifies risk and staff can manage it, then yes, these residents should be routinely re-assessed also.

- **If necessary, reduce the number of weekly re-assessments**

If after targeting residents as noted above, the nursing staff still cannot complete all re-assessments, then reduce the number of weekly re-assessments to two or three within a four-week period following admission. Use residents' Braden scores to guide the cutbacks, reducing first the number of re-assessments for those with higher Braden scores—or less risk. Thus, you should cut back first for tier 3 residents, then for tier 2 residents, and only as a last resort for tier 1 residents, those at greatest risk.

We recognize that use of this “triage system” may result in substandard care for some at-risk residents. This is truly regrettable but possibly unavoidable. If a facility is seriously short-staffed, as many are, then it is naïve to think that the services provided won't suffer. In such a case, we believe it is ethically and clinically justifiable to focus first on providing proper care to those most in need, as determined by objective, valid assessments. This triage plan seems preferable to the usual practice in many nursing homes of providing substandard care to all at-risk residents, a system that ensures that none get what they really need.

## TARGETED RESIDENTS NEED EARLY INTERVENTION

Residents targeted to receive routine re-assessments during their first month are at high enough risk that they also need early intervention services to prevent PU development. Strategies for strengthening these services are presented in the next section.

## ALL OTHER RESIDENTS NEED PERIODIC REASSESSMENTS

PU risk status is subject to change, so residents who do not meet our tier 1-3 risk criteria nevertheless require systematic re-assessments. We strongly recommend tying these to quarterly Minimum Data Set (MDS) assessments to ensure that they are completed routinely and accurately. IF the re-assessment shows the resident is now at risk of developing a PU (i.e., meets tier 1-3 risk criteria), THEN implement early intervention services.

## YOUR ASSIGNMENT

Review the medical records of a handful of residents admitted to your facility in the past few months and answer these questions:

- How many residents had an initial pressure ulcer risk assessment?
- What assessment instrument was used?
- How many residents had weekly re-assessments within the first month following admission?
- Of those residents who did not receive re-assessment, should some have been reassessed based on risk status according to their initial assessment?

- Based on this review, does your facility need to strengthen PU reassessment procedures?

Share your findings; please contact us. We plan to report your feedback for the benefit of others in future updates to this site.

## REFERENCES

1. LUMETRA. (2003). Collaborative framework— Pressure Ulcer Management. In Pressure Ulcer Management Nursing Home Handbook.
2. Xakellis GC, Frantz RA, Lewis A, Harvey P. (2001). Translating Pressure Ulcer Guidelines into Practice: It's Harder than It Sounds. *Advances in Skin & Wound Care*, 14(5):249-256,258.
3. Goebel RH, Goebel MR. (1999). Clinical Practice Guidelines for Pressure Ulcer Prevention Can Prevent Malpractice Lawsuits in Older Patients. *Journal of Wound, Ostomy, and Continence Nursing*. Jul; 26(4):175-84.
4. C Harrington, C Kovner, M Mezey, J Kayser-Jones, S Burger, M Mohler, R Burke, and D Zimmerman (2000). Experts Recommend Minimum Nurse Staffing Standards for Nursing Facilities in the United States. *Gerontologist*; 40:5-16
5. Folkedahl BA, Frantz R. (2002). Prevention of Pressure Ulcers. Iowa City (IA): University of Iowa Gerontological Nursing Interventions Research Center, Research Dissemination Core. Accessed 3/18/04 .
6. Agency for Health Care Policy and Research. (1992). Pressure Ulcers in Adults: Prediction and Prevention. Clinical Practice Guideline No. 3. Accessed 2/15/04.
7. Bates-Jensen BM, Cadogan M, Jorge J, and Schnelle JF. (2003). Standardized Quality Assessment System to Evaluate Pressure Ulcer Care in the Nursing Home. *Journal of the American Geriatrics Society*, 51: 1194-1202.
8. Saliba D, Rubenstein LV, Simon B, Hickey E, Ferrell B, Czarnowski E, and Berlowitz D. (2002). Adherence to Pressure Ulcer Prevention Guidelines: Implications for Nursing Home Quality. *Journal of the American Geriatrics Society*; 51(1):56-62.
9. Braden BJ and Bergstrom N. (1994). Predictive Validity of the Braden Scale for Pressure Sore Risk in a Nursing Home Population. *Research in Nursing & Health*; 17:459-470.
10. Bates-Jensen BM, Cadogan M, Osterweil D, Levy-Storms L, Jorge J, Al-Samarrai N, Grbic V, and Schnelle JF. (2003). The Minimum Data Set Pressure Ulcer Indicator: Does it Reflect Differences in Care Processes Related to Pressure Ulcer Prevention and Treatment in Nursing Homes? *Journal of the American Geriatrics Society*, 51:1203-1212.
11. Schnelle JF, Bates-Jensen BM, Levy-Storms L, Grbic V, Yoshii J, Cadogan M, and Simmons SF. (2004). The Minimum Data Set Prevalence of Restraint Quality Indicator: Does it Reflect Differences in Care? *The Gerontologist*, 44(2):245-255.

## Step 3: Pressure Ulcer Prevention

Learn about essential early interventions that help prevent pressure ulcers and find out how to target these services to the at-risk residents who most need them.

### LET'S REVIEW

In the previous section, we discussed the importance of conducting routine re-assessments of newly admitted residents determined to be at risk of developing pressure ulcers (PU). We recommended that a resident's initial assessment as well as all re-assessments be conducted using a validated, standardized tool, namely either the [Norton Scale](#) or the [Braden Scale](#). We also recommended that re-assessments be conducted weekly for four weeks following admission, largely because PUs, if they are going to develop, will likely develop during this period (1).

### RISK ASSESSMENTS HELP TARGET INTERVENTIONS

The risk assessment and the re-assessments serve two purposes. First, they quantify a resident's PU risk level, so you can monitor whether the person is getting "better" or "worse" over time. Equally important, they help pinpoint the reasons why a resident is at risk, so you can intervene to reduce that risk.

The [Braden Scale](#), for example, assesses six PU risk factors:

- a resident's sensory perception,
- skin moisture,
- activity level,
- mobility,
- usual food intake, and
- exposure to friction and shear.

Each time you use this scale to assess a resident, you come to know that resident—and his or her risk profile—better. This knowledge, reflected in the ratings for each risk area, enables you to tailor intervention services to this particular individual. This ability not only can improve clinical care and resident outcomes, it can also save staff time, making good care more affordable. How so? Because when you target intervention services to identified needs you avoid the costly mistake of providing unnecessary care.

### FAILURE TO TARGET SERVICES CAN CREATE EXTRA WORK

Findings from the evaluation study of PU care led by Dr. John F. Schnelle and conducted in 16 nursing homes (2) suggest that facilities may be creating extra work for themselves. In this study, Dr. Schnelle and his team examined PU care for 329 residents whose most recent Minimum Data Set (MDS) assessment had triggered the PU resident assessment protocol (RAP). This RAP is initiated if a resident presents with one or more of seven PU conditions:

- limited bed mobility
- bed-fastness
- bowel incontinence
- peripheral vascular disease
- a stage 1-4 PU
- history of PU in the last 90 days
- use of a trunk restraint daily

Of our 329 PU risk residents, 90% had documented orders that they be repositioned every two hours as a preventive measure. That's nearly everyone! Even the best staffed nursing homes would struggle to manage this workload.

Routine repositioning, a costly intervention because it is so labor intensive, is recommended in best practice guidelines for PU risk residents who are (and here's the key phrase) *bedfast or who are unable or have limited ability to reposition themselves* (3).

Had nursing home staff followed these guidelines, only 64% of the participating residents would have been targeted for repositioning; that's the percentage assessed in their MDS as bedfast or immobile in bed. But wait: even this percentage may be too high.

In a related study, also led by Dr. Schnelle, our research team found that nursing home staff tend to *over-estimate* residents' dependency levels for bed mobility. We compared nursing home staff MDS bed mobility ratings to our performance assessment ratings for 197 residents in 27 nursing homes (4). Of the 60 residents we rated as "able to move," 37, or 62%, were rated by nursing home staff as requiring physical assistance to move. That's 37 residents who may have been getting staff help they didn't need and possibly didn't want.

### **FAILURE TO TARGET SERVICES CAN ALSO SHORT-CHANGE RESIDENTS IN NEED**

From a staffing standpoint, overestimating dependency levels, and thus service needs, can be a costly mistake. From a clinical standpoint, it can be disastrous, for it means that most nursing homes will have targeted more residents than they can provide proper care for. For those who truly need repositioning, the usual upshot is that most will receive substandard care; only a minority will receive services at the level needed.

The PU care evaluation study led by Dr. Schnelle and our research team bore this out (2). We identified a sub-sample of 98 PU risk residents who were unable to reposition themselves independently, based on the performance assessment developed and validated by Dr. Schnelle in a series of studies. All of these residents then were in need of two-hour repositioning to prevent PU development. And all had medical record documentation that they were receiving it. But when we used wireless thigh movement monitors to detect actual repositioning, we found that only 26% of these residents were repositioned an average of every *three* hours or less. Moreover, their average longest time in one position was 5.6 hours, and ranged from 4 to 12 hours.

Could it be that by trying to do too much for too many, nursing home staff were short-changing those most in need? We think it's likely.

Note: The wireless thigh monitor technology for assessing the bed mobility of nursing home residents was developed by Dr. Schnelle, in conjunction with Dr. Mark Friedman of Augmentech Inc., Pittsburg, PA, and tested in a series of research studies led by Dr. Schnelle. Unfortunately, these devices are not yet publicly available for use by nursing homes; however, the performance assessment, also developed by Dr. Schnelle, can be used to assess resident's movement ability.

### **SO HERE ARE OUR RECOMMENDATIONS**

It is no accident that so far we have devoted most of this section to repositioning, for of our early intervention recommendations, this care process is by far the most time

consuming and the one most in need of improvement.

Our recommendations for prevention are drawn from a series of 11 quality indicators (QI) related to PU care for nursing home residents. Presented as a series of if/then statements, these QIs include three that outline an early intervention process for PU risk residents.

As you review them, keep in mind that these QIs are derived from but are not identical to the recommendations in best practice guidelines. Best practice guidelines, such as those available from the American Medical Directors Association and the Agency for Healthcare Quality and Research, “define optimal or ideal care in the context of complex decision-making” (5).

By contrast, our QIs, developed in conjunction with RAND, a Southern California think tank, “set a minimal standard for acceptable care—*standards that, if not met, almost ensure that the care is of poor quality*” (5).

## **PU QUALITY INDICATORS FOR INTERVENTION**

1. IF a nursing home resident is identified as “at risk” for pressure ulcers, THEN prevention addressing repositioning every two hours, pressure reduction, and nutritional status should be documented, unless intolerance or lack of need is noted.
2. IF a nursing home resident is at risk for PU, THEN pressure reduction should be implemented unless intolerance or lack of need is noted.
3. IF a nursing home resident is both at risk for PU *and* unable to move

independently, THEN repositioning every two hours should be implemented, unless intolerance or lack of need is noted.

Let’s briefly discuss each of these three quality indicators.

### **QI 1: ASSESS FOR PREVENTION NEEDS**

The first one is a bit cryptic, but what it means is that, for any at-risk resident (remember: we defined “risk” in the previous section), you need to assess—and document—whether the resident needs any of three possible interventions:

- regular repositioning—recommended for residents who are unable to reposition themselves (we discuss this in more detail below)
- a nutritional consultation and possibly enhanced feeding assistance to improve food and fluid intake—recommended for residents who are under-nourished or at-risk for it. Our training module on weight loss prevention includes instructions and validated protocols for assessing weight loss risk as well as food and fluid intake.
- use of pressure reduction surfaces on beds and chairs—recommended for *all* at-risk residents, unless intolerance or lack of need is noted. Pressure reduction surfaces include low air loss beds and foam, air, or gel wheelchair and mattress overlays.

Note that this QI does *not* recommend automatic implementation of each prevention strategy for every at-risk resident. Each should only be provided to those residents who need it, based on objective, ideally validated, assessment criteria.

## **QI 2: USE PRESSURE REDUCTION SURFACES**

With respect to the second QI, we are happy to report that, for the most part, nursing homes appear to be meeting this standard. In the PU care evaluation study led by Dr. Schnelle, 84% of the 16 participating nursing homes passed this QI (2). Two possible explanations for such commendable compliance are that use of pressure reduction surfaces typically requires a one-time only placement of a pad or overlay and the visibility of these devices make it easy for supervisors to monitor their use.

There remains, however, room for improvement, especially with respect to the use of wheelchair overlays. Our nursing home observations suggest that staff often stop with the use of mattress overlays and low air loss beds, overlooking the fact that some PU risk residents spend a lot of time in their wheelchairs. In fact, the inconsistent use of pressure reduction surfaces often occurs as residents transition from their bed to their wheelchair multiple times per day and the pressure reduction surface remains in only one of the two locations. Consider this in your assessments and take preventive action when indicated.

## **QI 3: REPOSITION RESIDENTS WHO NEED IT**

We noted it in the previous section, but it bears repeating here: First impressions can be deceptive. And nurse aide reports can be inaccurate. Before you assume that a PU risk resident requires two-hour repositioning, check it out.

Conduct a performance assessment to determine whether residents with mobility limitations are in fact incapable of repositioning themselves independently. Our performance assessment, developed by Dr. John F. Schnelle, presented below and in our forms section, takes about three minutes per resident to complete.

Sound like extra work? In the long run this assessment will likely save staff time. The reason is that, in the absence of an objective assessment, nursing home staff tend to *overestimate* the number of residents who are unable to reposition themselves, thus creating more work for themselves. In a recent study led by Dr. Schnelle, for example, we found that, of 144 residents whom nursing home staff had identified as in need of repositioning, 46 residents—about 32%--could in fact independently reposition themselves (4).

Our performance assessment, presented next and in our forms section, can be used to both target PU risk re-assessments (see Step 2) and determine who needs routine repositioning. Residents who are capable of independently repositioning themselves are at lower risk of developing PUs.

## **HOW TO CONDUCT THE PERFORMANCE ASSESSMENT**

To conduct our performance assessment, a licensed nurse should ask residents lying in bed to turn to one side, and then the other side. For each turn, be prepared to offer the resident the *minimum* level of human assistance possible, according to a standardized graduated assistance protocol:

- Level 0: Request only, no physical assistance required
- Level 1: No physical assistance but encouragement, verbal cues, prompting,

or instructions on how to perform the activity (e.g., “Reach for the siderail, pull yourself over”)

- Level 2: Verbal cues required plus minimal manual guidance to start the movement (e.g., “Please move your hand towards the siderail”)
- Level 3: Partial physical assistance (e.g., take arm and move to side rail to turn)
- Level 4: Unable to turn to the side without complete physical assistance

Residents are rated “able to move” if their performance falls within Level 0 or 1 *on both sides*.

Please note: Some of these residents, especially those rated Level 1, will need verbal cuing or reminders to turn (though they don’t need time-consuming physical help). Remember also to provide verbal reminders as needed when residents are in their wheelchairs. Be sure to share performance assessment results with fellow staff workers so they, too, can provide appropriate care.

If residents are rated at higher levels (2-4) *on either or both sides*, they are considered “unable to move independently” and thus, require physical help from staff with repositioning every two hours.

Use our Performance Assessment Form to document resident results.

This assessment takes about five minutes per resident to conduct (about three minutes per side). Inter-rater reliability is excellent and stability of results is good (4).

**Some residents, especially those rated Level 1, will need verbal cuing or reminders to turn in bed. Remember also to provide verbal reminders as needed when residents are in their wheelchairs.**

## TAKE ACTION BASED ON RESIDENTS’ ABILITIES

Once you have more accurate information about residents’ abilities to move independently, you can design more effective movement care plans. For example, try the following movement care plans:

1. Use verbal reminders to move for those residents judged able to independently move but who required verbal cues or encouragement to do so. Be sure staff know that they should remain with the resident until the resident has repositioned him/herself, as opposed to simply providing a verbal reminder and then leaving.
2. Remember to reposition those residents who are unable to move independently both when in bed **and** when up in a chair.
3. Use verbal reminders for residents who are able to independently move one side of their body (e.g., scored level 0 or 1 when turning to one side but levels 2-4 when turning to the other side). Again, be sure the resident actually repositions him or herself following a verbal reminder. Provide physical help when moving these residents to the impaired side of their body.

## ADDITIONAL RECOMMENDATIONS FOR OPTIMAL CARE

Again, our QIs represent *minimal* standards for acceptable care. Best practice guidelines include additional recommendations for improving mobility, enhancing incontinence care, performing regular skin assessments, and conducting other preventative interventions. Ready to

review these recommended steps with an eye toward implementation? Then check out these resources:

- Our training module on incontinence management presents instructions and protocols for accomplishing each of the four steps required to implement an effective prompted-voiding program, a behavioral management intervention that has been shown to significantly improve continence.
- Our training module on mobility decline prevention presents instructions and protocols for implementing a fitness program that maintains or improves mobility among even the most functionally impaired residents.
- Best practice guidelines for PU care, including early intervention to prevent PU development, are available from several agencies. We list them on our links page.

## COMING UP: WOUND ASSESSMENT

What action is required if a resident is admitted with a PU or, despite your best efforts, develops one? The next section discusses procedures for completing an important assessment that is often left incomplete in nursing homes: PU evaluation. Data from this evaluation helps guide interventions, provides a basis for later comparison to evaluate healing, and helps predict time to healing.

## YOUR ASSIGNMENT

- Identify a handful of residents who have documented orders for two-hour repositioning.

- Use our Performance Assessment Form to evaluate their ability to reposition themselves.

How did they do? Did you find that some were able to reposition themselves independently? And how did you do with our standardized assessment? Let us know; please contact us. We plan to report your feedback for the benefit of others in future updates to this site.

## REFERENCES

See also our related studies.

1. Braden BJ and Bergstrom N. (1994). Predictive Validity of the Braden Scale for Pressure Sore Risk in a Nursing Home Population. *Research in Nursing & Health*; 17:459-470.
2. Bates-Jensen BM, Cadogan M, Osterweil D, Levy-Storms L, Jorge J, Al-Samarrai N, Grbic V, and Schnelle JF. (2003). The Minimum Data Set Pressure Ulcer Indicator: Does it Reflect Differences in Care Processes Related to Pressure Ulcer Prevention and Treatment in Nursing Homes? *Journal of the American Geriatrics Society*, 51:1203-1212.
3. Agency for Health Care Policy and Research. (1992). Pressure Ulcers in Adults: Prediction and Prevention. Clinical Practice Guideline No. 3. Accessed 2/15/04.
4. Bates-Jensen BM, Simmons SF, Alessi C, and Schnelle JF. (2005). Evaluating the accuracy of the Minimum Data Set bed mobility ratings against independent performance assessments: Systematic error and directions for improvement. *The Gerontologist*, 45(6):731-738.
5. RAND. Quality Indicators for Prevention and Management of Pressure Ulcers in Vulnerable Elderly. Accessed 3/18/04.

## Step 4: Pressure Ulcer Assessment

Learn a reliable method for conducting a comprehensive wound assessment. The assessment guides intervention, provides a basis for comparison to evaluate healing, and helps predict time to healing.

### PURPOSE OF A PU EVALUATION

Let's pick up where we left off in Step 3: What action is required if a nursing home resident is admitted with a pressure ulcer (PU) or, despite your best efforts, develops one? This section discusses procedures for completing an important assessment that is often left incomplete in nursing homes: PU evaluation.

Essentially a wound assessment, PU evaluation is recommended in all the best practice guidelines (see our related Links page) for several reasons. Data from this evaluation:

- helps guide interventions,
- provides a basis for comparison to evaluate healing, and
- helps predict time to healing.

What the practice guidelines imply but stop short of spelling out is that if wound assessments are conducted at baseline and regular intervals thereafter, then there is an excellent chance that PU treatment and management will be carried out in an equally conscientious, clinically appropriate manner. The wound assessments, in other words, set the stage for—and inform—the procedures that follow.

### INCOMPLETE EVALUATIONS ARE INSUFFICIENT

A common problem in nursing homes is that facilities set this stage incompletely. At a minimum, nursing staff should assess an existing PU for four characteristics:

- wound location
- depth, or stage
- size
- necrotic tissue

In a recent evaluation study led by Dr. John F. Schnelle and his research team, we found that nursing home staff documented all four wound characteristics for just 38% of 120 residents with PUs (1). The two most commonly charted characteristics were wound location and stage, which is a measure of the wound's depth. Both are important: Location can impact clinical interventions and stage is useful for diagnostic purposes. But even when considered together, these characteristics are insufficient to direct an effective treatment plan or achieve recommended evaluation goals; additional wound characteristics must also be assessed so that clinicians can evaluate and predict time to healing.

### OUR RECOMMENDATION

The best way to ensure that you cover the necessary ground is to use a validated assessment tool that enables you to quickly assess wound status so that you can tell whether a PU is getting better or worse over time:

- [PUSH Tool 3.0](#) (for Pressure Ulcer Scale for Healing, available free from the National Pressure Ulcer Advisory Panel)

## THE PUSH TOOL 3.0

The National Pressure Ulcer Advisory Panel (NPUAP), the developer of [PUSH](#), has this to say about use of its assessment tool:

**“NPUAP recommends use of the PUSH Tool at ‘regular intervals.’ The AHCPR Treatment Guideline recommends assessments be performed ‘at least weekly’ and ‘if the condition of the patient or of the wound deteriorates.’ The PRESSURE ULCER HEALING CHART (which is attached to the PUSH Tool) will allow you to graph PUSH Tool scores over time for each ulcer. You should be able to ‘tell at a glance’ whether the ulcer is healing, remains unchanged, or is deteriorating... Any increase in the PUSH Tool score (indicating wound deterioration) requires a more complete assessment of the ulcer and the patient’s overall condition (2).”**

The [PUSH Tool](#), which monitors a wound’s length and width, exudate amount, and tissue type, is best used as a method for predicting wound healing. Notes the NPUAP, “In developing specific treatment plans, you will need to assess additional (wound) parameters (2).”

## IN-SERVICE TRAINING RECOMMENDED

Regardless of which assessment tool your facility adopts, you should offer in-service education to make sure licensed nursing staff responsible for administering the tool know how to use the tool correctly. It helps to demonstrate proper use with actual residents. It’s also a good idea to arrange for experienced users and new users to

assess a few of the same residents on the same day so that they can compare results. If wide or consistent scoring discrepancies occur, both users should discuss their results in the context of the tool’s scoring instructions and try to reach consensus for conducting subsequent assessments.

## PRESSURE ULCER TREATMENT

As noted at the start of this section, wound assessment sets the stage for PU treatment. A detailed discussion of recommended treatment strategies is beyond the scope of this training module. Besides, it’s not needed: A number of clinical practice guidelines already cover that territory. We recommend that you check them out. They’re listed on the links page:

Visit the National Pressure Ulcer Advisory Panel website, [www.npuap.org](http://www.npuap.org), for additional information and education on PU treatment. Also, check out these pages on this website:

- Related studies
- Links

As always, feel free to contact us if you have unanswered questions or need other information.

## REFERENCES

See also our *related studies*.

1. Bates-Jensen BM, Cadogan M, Jorge J, and Schnelle JF. (2003). A Standardized Quality Assessment System to Evaluate Pressure Ulcer Care in the Nursing Home. *Journal of the American Geriatrics Society*, 51:1194-1202.
2. National Pressure Ulcer Advisory Panel. PUSH Tool Information and Registration Form. Accessed 4/07/04.

## Related Studies

### **Standardized Quality Assessment System to Evaluate Pressure Ulcer Care in the Nursing Home**

Barbara M. Bates-Jensen, Mary Cadogan, Jennifer Jorge, John F. Schnelle, 2003, in *Journal of the American Geriatrics Society*, 51(9):1194-1202.

Pressure ulcers (PUs) are an important quality measure in nursing homes because they are common, often preventable, and associated with morbidity, mortality, and other quality of care problems. This paper describes nine quality indicators that reflect PU care processes determined by expert consensus to be related to positive outcomes (i.e., are valid) and feasible to implement in NHs. The quality indicators have been operationalized into a standardized system that incorporates explicit measurement protocols and scoring rules. Indicator scores based on direct observation and medical record data for 191 residents in eight nursing homes are presented to illustrate how conclusions can be drawn about the quality of PU care using the indicators and standardized scoring system. The focus of the indicators on care processes that are under the control of nursing home staff makes the protocol useful for both external survey and internal quality improvement purposes.

### **The Minimum Data Set Pressure Ulcer Indicator: Does it Reflect Differences in Care Processes Related to Pressure Ulcer Prevention and Treatment in Nursing Homes?**

Barbara M. Bates-Jensen, Mary Cadogan, Dan Osterweil, Lene Levy-Storms, Jennifer Jorge, Nahla Al-Samarrai, Valena Grbic, and John F. Schnelle, 2003, in *Journal of the American Geriatrics Society*, 51(9): 1203-12.

This study showed that, despite assumptions to the contrary, nursing homes with low prevalence rates for pressure ulcers

(PU) do not provide better PU care than homes with high prevalence rates. In general, all 16 nursing homes in this study performed poorly on screening and preventing PUs, though they did better at management once a PU was present.

The study examined 16 quality indicators related to PU care in two groups of nursing homes: Six homes with a high prevalence of PU and 10 with a low prevalence of PU. Prevalence of PU as reported in Minimum Data Set (MDS) resident assessments is a publicly reported quality measure for nursing homes. The assumption is that differences in prevalence rates reflect differences in quality of care. Thus, low PU prevalence homes are presumed to provide better care than high PU prevalence homes.

This study, however, found few differences between the two nursing home groups. Homes with low PU prevalence rates did not provide better care. Nursing homes with higher rates of PU, however, were more likely to use pressure-reduction surfaces and were better at documenting wound characteristics.

### **The Effects of an Exercise and Incontinence Intervention on Skin Health Outcomes in Nursing Home Residents**

Barbara M. Bates-Jensen, Cathy A. Alessi, Nahla R. Al-Samarrai, and John F. Schnelle, 2003, in *Journal of the American Geriatrics Society*, 51(3):348-355.

This randomized controlled study evaluated whether a combined exercise and incontinence intervention improved skin health outcomes for nursing home residents. Four risk factors related to skin health—urinary and fecal incontinence, physical activity, and skin wetness—did improve, but did not translate into significant

improvements in most measures of skin health. There was no difference between the intervention and control groups in the incidence rate of pressure ulcers. However, those residents who improved the most on fecal incontinence showed improvement in pressure ulcers in one area.

For the study, 190 incontinent residents in four nursing homes were divided into intervention and control groups. With intervention residents, research staff provided exercise and incontinence care every two hours from 8 a.m. to 4:30 p.m., five days a week for 32 weeks. The control group received usual care from nursing home staff.

The authors conclude that even if nursing homes had adequate staffing resources, they might not be able to improve skin health quality indicators significantly if they attempt to implement preventive interventions on all residents who are judged at risk because of their incontinence status.

# Links

## PRACTICE GUIDELINES

### **Agency for Healthcare Research and Quality**

[Clinical Practice Guidelines: Pressure Ulcer Prevention and Pressure Ulcer Treatment](#)

**American Medical Directors Association**  
[Clinical Practice Guideline: Pressure Ulcers](#)

**American Medical Directors Association**  
[Clinical Practice Guideline: Pressure Ulcer Therapy Companion](#)

**Paralyzed Veterans of America**  
[Pressure Ulcer Prevention and Treatment following Spinal Cord Injury: A Clinical Practice Guideline for Health-Care Professionals](#)

**University of Iowa Gerontological Nursing Interventions Research Center**  
[Practice Guideline: Treatment of Pressure Ulcers](#)

**Wound, Ostomy, and Continence Nurses Society**  
[Guideline for the Prevention and Management of Pressure Ulcers](#)

## OTHER RESOURCES

### **Braden Scale**

[For assessing pressure ulcer risk](#)

### **Centers for Medicare and Medicaid Services**

[Nursing Home Quality Initiative](#)

### **Lumetra**

<http://www.lumetra.com/consulting/>

Resources for Nursing Homes Includes:

- Collaborative Framework for Prevention and Management of Pressure Ulcers
- Improving Pressure Ulcer Prevention and Management (plenary presentation)

### **MedQIC, an online resource sponsored by the Centers for Medicare & Medicaid Services**

[Clinical Resources: Pressure Ulcers](#)

### **National Guideline Clearinghouse**

[A public resource for evidence-based clinical practice guidelines](#)

[National Pressure Ulcer Advisory Panel](#)

# Pressure Ulcer Screening Forms

## STEP 1: PRESSURE ULCER RISK ASSESSMENT

- [Braden Scale for Predicting Pressure Sore Risk®](#). Available free from Prevention Plus, LLC for use in nursing homes.

implement. Use the QI form listed above to evaluate pressure ulcer care in your facility.

## STEP 2: PERFORMANCE ASSESSMENT

- Performance assessment to evaluate ability to reposition self

## STEP 3: WOUND ASSESSMENT

- [PUSH Tool 3.0](#). Available free from the National Pressure Ulcer Advisory Panel.

## QUALITY INDICATORS FOR PRESSURE ULCER CARE

- Pressure Ulcer Quality Indicators, Data Sources, Eligibility, and Scoring Rules

We worked with researchers at RAND, a southern California think tank, to develop a series of 11 quality indicators (QI) related to pressure ulcer care for nursing home residents. Presented as a series of if/then statements, these QIs outline minimally acceptable care for the prevention and assessment of pressure ulcers. QIs, writes RAND, “set a minimal standard for acceptable care—standards that, if not met, almost ensure that the care is of poor quality.”

Based on expert opinion and existing best-practice guidelines, all of our QI-associated assessment and treatment tasks are both related to positive outcomes for residents and feasible for nursing home staff to

**PERFORMANCE ASSESSMENT TO EVALUATE  
ABILITY TO REPOSITION SELF  
(by: John F. Schnelle, PhD)**

Resident Name: \_\_\_\_\_ Date: \_\_\_\_/\_\_\_\_/\_\_\_\_

**Purpose:** To determine whether a resident is capable of independently repositioning him- or herself. This assessment should be conducted by a licensed nurse.

**Instructions:** Ask the resident to “please turn to one side in bed.” Be prepared to offer the resident the *minimum* level of human assistance possible, according to a standardized graduated assistance protocol:

- Level 0: Request only, no physical assistance required
- Level 1: No physical assistance but encouragement, verbal cues, prompting, or instructions on how to perform the activity (e.g., “Reach for the siderail, hold the siderail and pull yourself over on your side”)
- Level 2: Verbal cues required plus minimal manual guidance to start the movement (e.g., “Please move your hand towards the siderail”)
- Level 3: Partial physical assistance (e.g., take hand and move to siderail to start turn)
- Level 4: Unable to turn to the side without complete physical assistance

**Repeat the assessment for turning to the other side.**

**Record Results for right and left turns below:**

	Level 0: Request only, no physical assistance required	Level 1: No physical assistance but encouragement, verbal cues, prompting, or instructions on how to perform the activity	Level 2: Verbal cues plus minimal manual guidance to start the movement	Level 3: Partial physical assistance	Level 4: Unable to turn without complete physical assistance	Independent( Levels 0,1)	Dependent (Levels 2-4)	ABLE TO MOVE? (Levels 0,1 for BOTH sides)
Right Turn								
Left Turn								

**Interpretation:** For each side, rate resident as “independent” if performance falls within Level 0 or 1, and “dependent” for performance at higher levels. If the resident is rated as “Independent” for BOTH right and left sides, consider the resident as “able to move.” If the resident is rated as “dependent” for EITHER side, consider the resident as “unable to move.”

**Other:** This assessment takes about six minutes per resident to conduct. Inter-rater reliability is excellent and stability of results is good (1). The assessment should be repeated whenever there is change in the resident’s condition and at periodic intervals (e.g., quarterly).

**Reference:**

Bates-Jensen BM, Cadogan M, Jorge J, and Schnelle JF. (2003). A Standardized Quality Assessment System to Evaluate Pressure Ulcer Care in the Nursing Home. *Journal of the American Geriatrics Society*, 51: 1194-1202.

**PRESSURE ULCER QUALITY INDICATORS, DATA SOURCES, ELIGIBILITY, AND SCORING RULES**  
**(by: the RAND Corporation)**

QUALITY INDICATORS: IF a Nursing Home resident:	ELIGIBILITY*, DATA SOURCE†, & SCORING RULES	Pass	Fail
1. Is unable to reposition him or herself, or has limited ability to do so, THEN perform risk assessment with a standardized scale on admission & <u>weekly for first 4 weeks.</u>	Scoring Rules: Pass (original indicator) = documentation of risk assessment within 1 week of admission & then weekly during the first four weeks. Pass (revised indicator) = documentation of risk assessment within 1 week of admission. Risk assessment scales include the Braden Scale <sup>11</sup> , the Norton scale <sup>16</sup> , or a facility-created scale with at least 3 risk factors.		
2a. Is identified as “at risk” for PUs‡, THEN address: 2 hour repositioning, pressure reduction, & nutritional status unless not needed or tolerated.	Scoring Rules: Pass = nurse aide flow sheets, licensed provider notes, physician’s orders, or the care plan note the 3 interventions. Nurse aide flow sheets with a check-off box for repositioning which include frequency are acceptable. Any nutritional assessment is acceptable.		
2b. Is identified as “at risk” for PU development, THEN implement pressure reduction.	Data Source: Direct Observation Scoring Rules: Pass = observed on pressure reduction (e.g., low air loss bed, foam, air, or gel wheelchair or mattress overlays) on any 1 hourly observation from 7am—7pm.		
3. Is found with a PU, THEN assess nutritional status within 1 week.	Eligible: Resident with presence or history of PUs‡ Scoring Rules: Pass = any nutritional assessment if within 1 week of first recorded notice of the PU.		
<b>4. Is found to have a PU, THEN assess the PU for: 1) location, 2) depth/stage, 3) size, &amp; 4) necrotic tissue.</b>	Eligible: Resident with presence or history of PUs Scoring Rules: Pass = Licensed provider admission assessment, progress notes, or treatment records note all 4 wound characteristics.		
5. Has a PU, THEN a topical antiseptic should not be used on the wound.	Eligible: Resident with presence or history of PU (stage II-IV). Scoring Rules: Pass = physician’s orders or licensed nurse treatment records or weekly summary indicate no topical antiseptic used on the wound.		
6. Has a clean full-thickness or a partial thickness PU, THEN a moist wound healing environment should be provided with topical dressings.	Eligible: Resident with presence or history of clean PU (stage II-IV). Scoring Rules: Pass = physician’s orders or licensed nurse treatment records or weekly summary indicate a moist wound dressing was applied.		

<b>QUALITY INDICATORS:</b> IF a Nursing Home resident:	<b>ELIGIBILITY*, DATA SOURCE†, &amp; SCORING RULES</b>	<b>Pass</b>	<b>Fail</b>
7. Has a full thickness PU with no improvement in 4 weeks, or a partial thickness PU with no improvement in 2 weeks, THEN re-assess the treatment plan and stage III/IV PU for cellulitis or osteomyelitis.	Eligible: Resident with presence or history of PU with no improvement in 2 weeks (stage II) or 4 weeks (stage III-IV). Scoring Rules: Pass = physician's orders or notes, or licensed nurse treatment records or weekly summary indicate a treatment change or assessment for cellulitis or osteomyelitis.		
8. Has a full thickness, trunkal PU covered with necrotic tissue, THEN debridement interventions should be instituted within 3 days of diagnosis.	Scoring Rules: Pass = physician's orders or progress notes, or licensed nurse treatment records or weekly summary indicate debridement.		
9. Has a full thickness PU covered with necrotic tissue and systemic infection, THEN sharp debridement, blood cultures, initiation of antibiotic therapy, and resident and wound assessment should be done by primary care provider.	Scoring Rules: Pass = physician's orders or progress notes indicate any one of the following: evaluation of the resident and PU, blood cultures ordered, or antibiotics prescribed, and any type of debridement in progress.		

† All indicators should be scored with medical record data unless otherwise indicated.

‡= If multiple PUs are present, evaluate the highest stage PU.