



Nursing Facility Quality Review 2012 Report

**As Required by
2012-13 General Appropriations Act
(Article II, Department of Aging and Disability Services,
Rider 13, House Bill 1, 82nd Legislature, Regular Session, 2011)**

Texas Department of Aging and Disability Services

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Nursing Facility Quality Review 2012 Report

Introduction

Rider 13 of the General Appropriations Act (H.B. 1, 82nd Texas Legislature Regular Session, 2011) directed the Texas Department of Aging and Disability Services (DADS) to conduct surveys of nursing facility residents, including assessments of satisfaction with quality of care and quality of life, and on-site reviews of the quality of care. The rider further required a written report on the findings of the survey and assessments to be prepared and submitted to the Legislature, Governor and Health and Human Services Commissioner.

Each year since 2002, the Nursing Facility Quality Review (NFQR) has served to meet this legislative requirement, as well as to benchmark the quality of services provided to nursing facility residents across the state.

Methodology

DADS contracted with the Nurse Aide Competency Evaluation Service Plus Foundation, Inc. (NACES) to survey and assess 2,172 randomly selected nursing facility residents across the state. DADS staff analyzed the NFQR 2010 data, using statistical software to test for trends across time.¹ Most of the quantitative results documented in this report were derived directly from the 2010 NFQR individual assessments. The exceptions include data that were obtained from the individual's Medication Administration Record (MAR) and data from the Centers for Medicare & Medicaid Services (CMS). Data were collected on the following topics:

- Advance Care Planning
- Depression
- Diabetes Mellitus
- Fall Risk Assessment
- Immunizations
- Indwelling Bladder Catheters²
- Infectious Illnesses³
- Medication Practices and Safety
- Nutrition, Unintended Weight Loss and Hydration
- Pain Assessment and Control
- Pressure Ulcers
- Psychoactive Medication Usage
- Quality of Life/Consumer Satisfaction

¹ Statistically significant differences that are unlikely to be due to chance are indicated by an asterisk and corresponding p-value throughout this report. A p-value of <.01 means that there is a 99% chance that the observed difference is due to a real effect.

² Data was collected, but not included in the detailed description of findings. The data gathered was not useful due to the small number of residents involved.

³ Data was collected, but not included in the detailed description of findings. The data gathered was not useful due to the small number of residents involved.

- Restraints
- Tube Feedings
- Urinary Continence

The data collected included demographic information on residents in the sample:

- Eighty-four percent were 65 years of age or older
- Sixty-nine percent were female; 31 percent were male
- Sixty-three percent had a diagnosis of Alzheimer’s disease, dementia or cognitive impairment
- Median length of stay was 489 days (1.3 years)

Key Findings

Additional information on each of these findings, the survey instrument/results and a glossary of terms is available in the appendices at the end of this report.

Improving Trends in Resident Outcomes

(Items that showed a statistically significant linear trend, improving over time)

Observation	NFQR 2010 Results	Change Over Time
Antipsychotic Medication Use		
Residents who received atypical antipsychotics	89%	▼
Residents who received atypical antipsychotics for dementia-related behaviors	32%	▼
Restraints		
Residents with full bedrails in use	46%	▼
Nutrition, Unintended Weight Loss and Hydration		
Residents assessed for risk factors for weight loss	75%	▲
Residents assessed for risk factors for dehydration	78%	▲
Residents whose nutritional assessment included an assessment of nutritional needs	99%	▲
Pain Assessment and Control		
Residents more likely to be assessed for pain using a validated assessment tool	90%	▲
Facilities consistent use of the same validated tool for subsequent assessments of resident pain	84%	▲
Quality of Life/Consumer Satisfaction		
Residents who liked the food served at the facility	85%	▲
Residents who stated their favorite foods were available at the nursing facility	71%	▲
Residents who reported they enjoy mealtimes at the facility	89%	▲
Residents who indicated weekend activities (other than religious activities) were available	49%	▲
Residents who felt their possessions were safe at the facility	92%	▲

Observation	NFQR 2010 Results	Change Over Time
Sleep Disturbances		
Residents who had problems sleeping were evaluated for sleep hygiene	12%	▲

Declining Trends in Resident Outcomes

(Items that showed a statistically significant linear trend, deteriorating over time)

Observation	NFQR 2010 Results	Change Over Time
Advanced Care Planning		
Residents who had an advance care planning document	61%	▼
Pressure Ulcers		
Residents who had pressure ulcers develop after admission to the nursing facility	62%	▲
Residents who had a plan in place for treating pressure ulcers	86%	▼
Antipsychotic Medication Use		
Residents who received typical antipsychotics	17%	▲
Restraints		
Residents who were restrained in some manner	41%	▲

Notable Survey Observations

(Items new to the NFQR, or which are of interest, but had no statistically significant changes over time)

Observation	NFQR 2010 Results
Advanced Care Planning	
Residents who received care consistent with their advance directive	99%
Anti-Anxiety Medications	
Residents who received anti-anxiety medications	23%
Depression	
Residents who had a diagnosis of clinical depression	38%
Residents with depression who received ongoing assessments	37%
Residents with depression who received treatment – with medication being the most common intervention	94%
Diabetes Mellitus	
Residents with diabetes who received an eye examination, foot assessment and recommended laboratory tests	6%
Residents with diabetes who received influenza vaccine	79%
Residents with diabetes who received pneumococcal vaccine	70%
Immunizations	
Residents who received the influenza vaccine	76%
Residents who received the pneumococcal vaccine	61%

Observation	NFQR 2010 Results
Pain Assessment and Control	
Residents who were satisfied with their level of pain control	92%
Pressure Ulcers	
Residents who had a documented pressure ulcer	8%
Quality of Life/Consumer Satisfaction	
Residents who said they enjoy the organized activities at the nursing facility	62%
Residents who said they feel safe and secure at the nursing facility	98%
Restraints	
Restraints used on residents at the request of family member or responsible party	25%

Next Steps

The NFQR results indicated that residents overall were satisfied with their quality of life in nursing facilities. Measurement trends showed continuing improvements in this area. Nearly 90 percent of residents enjoyed mealtimes, and more than 90 percent felt their possessions were safe in the facilities.

On-site reviews determined that the use of bed rails as a restraint mechanism continued to decline. Nutritional assessments for unintended weight loss and dehydration continued to increase. There also were increases in evaluations for sleep hygiene.

DADS continues to collaborate with medical directors, nurses, pharmacists and dietitians in nursing facilities to improve resident outcomes through the Quality Monitoring Program (QMP). The NFQR reported negative trends in the areas of advance care planning, pressure ulcers, use of typical antipsychotic medication and the overall percentage of residents restrained in some manner.

The QMP is updating its best practice information database for each of these focus areas, based on a comprehensive review of the literature and works of nationally recognized experts. The results of the research will be synthesized into structured assessment tools and will be used by QMP staff for disseminating evidence-based best practice information and providing technical assistance to nursing facility management and staff.

In addition to the focus areas of appropriate use of antipsychotic medications, advance care planning, mechanical restraint reduction and pressure ulcer prevention, the QMP will also update its best practice materials for pain management, appropriate use of anxiolytic medications, tube feeding, appropriate use of sedative hypnotic medications, flu and pneumococcal vaccinations, fall risk management, dehydration, medication regimen simplification and weight management. The updated information will be disseminated via technical assistance visits to facilities, training, webinars, the DADS website and special presentations to stakeholders.

Appendix A

Nursing Facility Quality Review 2010 Survey Findings

Advance Care Planning

Advance care planning (ACP) provides residents and their family members with the information necessary to make current and future health care decisions. The advance care planning process involves a discussion with the resident, family members and healthcare providers that includes:

- information about the resident’s current medical conditions, treatment options and prognosis;
- understanding the resident’s values, goals and religious/cultural beliefs; and
- decisions regarding the use of life or organ sustaining measures, such as cardio-pulmonary resuscitation, artificial ventilation or artificial nutrition and hydration.

ACP also may address the use of other medical interventions such as hospitalization, chemotherapy, dialysis and antibiotic therapy.

Decisions regarding ACP should be documented to ensure care is consistent with the resident’s values and wishes, particularly when he or she is unable to participate in the decision-making process. In Texas, three types of advance directives are recognized by law:

- Directive to Physicians and Family or Surrogates
- Medical Power of Attorney (MPOA)
- Out of Hospital Do-Not-Resuscitate (DNR)

These are the legal documentation of a resident’s wishes regarding end-of-life issues (Texas Department of Aging and Disability Services (DADS): Advance Care Planning 2012).

Proportion with an Advance Directive

The percentage of residents who had an advance care planning document decreased over the past years:⁴

<u>2007</u>	<u>2008</u>	<u>2009</u>	<u>2010</u>
69%	63%	63%	61%

The proportion of residents with a specific ACP document was:

	<u>2007</u>	<u>2008</u>	<u>2009</u>	<u>2010</u>
• Directive to Physicians and Family or Surrogates	26%	24%	27%	23%
• Medical Power of Attorney	29%	30%	31%	26%
• Out of Hospital DNR ⁵	57%	52%	51%	51%

⁴ Statistically significant linear trend at $p < 0.1$.

⁵ Statistically significant linear trend at $p < 0.1$.

Care Consistent with Advance Directive

In 2010, of those residents with advance directives, 99 percent received care consistent with the directive:

<u>2007</u>	<u>2008</u>	<u>2009</u>	<u>2010</u>
99%	97%	99%	99%

Advance directives have become more likely to address artificial nutrition and hydration over the years:⁶

<u>2007</u>	<u>2008</u>	<u>2009</u>	<u>2010</u>
16%	24%	29%	26%

Depression

Up to 35 percent of nursing facility residents may experience major depression or exhibit depressive symptoms. Depression often goes untreated since it frequently occurs concurrently with other common disorders, such as cognitive impairment, functional impairment and many other chronic medical conditions (Thakur & Blazer, 2008).

According to the American Medical Directors Association (AMDA), *Depression in the Long Term-Care Setting*, (2011), risk factors for depression include:

- Alcohol or substance abuse
- Medications, including some anticonvulsants, antihypertensives and corticosteroids
- Hearing or vision impairment severe enough to affect function
- History of suicide attempt
- History of psychiatric hospitalization
- Medical diagnosis associated with a high risk of depression
- New admission or change in environment
- New stressful losses – independence, privacy, functional status, death of friend or loved one
- Personal or family history of depression or mood disorder

The primary treatment for depression in this population is antidepressant medication, such as selective serotonin reuptake inhibitors. While the newer antidepressants have a better safety profile than the older tricyclic antidepressants, adverse side effects are still possible and can be more serious in those over the age of 65. Side effects may range from gastrointestinal upset and headaches to more significant issues such as:

- Increased risk of falls and fractures
- Serotonin syndrome (agitation/restlessness, elevated blood pressure and heart rate, increased body temperature, overactive reflexes, renal failure and possible death)
- Gastrointestinal bleeding

⁶ Statistically significant linear trend at $p < 0.1$.

Other treatments include psychotherapy, light therapy, cognitive-behavioral therapy and exercise (Thakur & Blazer, 2008).

Percentage of Residents with Depression

In 2010, 38 percent of residents sampled had a diagnosis of clinical depression, and 60 percent of those had an identifiable cause documented:⁷

	<u>2010</u>
• Grief/loss	26%
• Medical illness	81%
• Anxiety	30%
• Drug causing symptoms of depression	1%
• Other causes	12%

Only 37 percent of residents with a diagnosis of depression had ongoing assessments (at least every two weeks) of depressive symptoms.

Treatment for Depression

In 2010, six percent of residents with a diagnosis of depression were receiving no treatment. Of those who were receiving treatment, medications were the most common intervention:⁸

	<u>2010</u>
• Medication	91%
• Individual psychotherapy	24%
• Group psychotherapy	<1%
• Other treatments	1%

Response to Treatment

Forty-eight percent of residents demonstrated improvement in depressive symptoms with treatment. The percentage of residents with improvement in symptoms by treatment modality was:⁹

	<u>2010</u>
• Individual psychotherapy	70%
• Medications	48%

⁷ More than one cause may have been documented.

⁸ Residents may have been receiving more than one type of treatment concurrently.

⁹ Totals to more than 100 percent as residents may have been receiving more than one treatment modality.

Diabetes Mellitus

Diabetes mellitus is a chronic metabolic disorder that can lead to long-term disability and even death. According to the Centers for Disease Control and Prevention, more than 18 million people in the United States had diabetes in 2010, including nearly 27% of individuals 65 years and older. According to the 2010 Behavioral Risk Factor Surveillance System (BRFSS) survey, 23 percent of Texans 65 years and older had diabetes.

Diabetes is a major cause of vision loss, end-stage renal failure and nontraumatic limb amputation. Other complications include periodontal disease, incontinence, increased risk of fracture, cognitive impairment, and a two to four times higher risk of heart disease and stroke. People with diabetes are also more likely to experience depression, increasing the risk for hospitalization and death (AMDA, *Diabetes Management in the Long-Term Care Setting*, 2010). In 2010, more than 3,000 deaths were directly attributed to diabetes in Texans 65 years of age or older (Texas Department of State Health Services (DSHS), 2012).

Financially, the costs associated with diabetes care account for an estimated 32 percent of Medicare expenditures. The cost of providing care to nursing facility residents with diabetes was estimated at more than \$18 billion dollars in 2007 (AMDA, *Diabetes Management in the Long-Term Care Setting*, 2010).

Proportion of Residents with Diabetes Mellitus

In 2010, 33 percent of residents in the sample had a diagnosis of diabetes mellitus. Of those residents with diabetes, 63 percent were insulin-dependent.

Laboratory Studies and Other Assessments

All individuals with a diagnosis of diabetes mellitus should have the following evaluations conducted at least annually (American Diabetes Association (ADA), 2010):

- Lipid profile – monitoring cholesterol levels in the blood
- Urine protein – monitoring for kidney damage
- HgbA1C – an evaluation of average blood sugar levels over a two- to three-month period
- Eye examination – screening for complications related to diabetes
- Foot assessment – screening for open wounds, circulatory problems or loss of sensation

In 2010, the NFQR surveyors were asked to determine whether the following evaluations had been conducted for residents with a diagnosis of diabetes. The percentage of residents who had the evaluations was:¹⁰

	<u>2010</u>
• Lipid profile	43%
• Urine protein	33%
• HgbA1C	71%

¹⁰ Information collected only for residents in the facility for at least one year.

- Eye examination 28%
- Foot assessment 54%

Only six percent of residents with diabetes had an eye examination, a foot assessment and all three laboratory tests completed.

In addition, each resident with a diagnosis of diabetes should receive the influenza and pneumococcal vaccines (ADA, 2010). The percentage of residents with a diagnosis of diabetes who received either the influenza or pneumococcal vaccine was:

- | | <u>2010</u> |
|------------------------|-------------|
| • Influenza vaccine | 79% |
| • Pneumococcal vaccine | 70% |

Fall Risk Management Practices

Falls and fall-related injuries are a serious health problem for people aged 65 and older. In the United States, falls are the most frequent cause of accidental death in older adults, with more than 21,000 deaths in 2010. About five percent of adults over the age of 65 live in nursing facilities, but they account for approximately 20 percent of fall related deaths in this age group. In 2010, 2.3 million people over the age of 65 received treatment in hospital emergency rooms for non-fatal fall related injuries, and more than 662,000 of those individuals were hospitalized for further treatment. Direct medical costs related to falls and fall related injuries were approximately \$30 billion in 2010, with costs estimated to rise to nearly \$55 billion by 2020 (Centers for Disease Control and Prevention (CDC), 2012).

Falls are usually the result of multiple contributing factors. A history of prior falls, acute illnesses and chronic disease processes such as stroke, Parkinson’s disease or diabetes all increase the risk for falls (AMDA, *Falls and Fall Risk Clinical Practice Guideline*, 2011). There is also a strong association between medication regimen and fall risk. Nursing facility residents often receive medications that have central nervous system effects, with the potential for dizziness, impaired motor coordination and confusion. In addition, polypharmacy is common in this population, increasing the potential for adverse drug reactions and falls. Dementia and other cognitive impairments are also risk factors for falls in older adults (American Geriatrics Society (AGS), 2010).

A successful fall risk management program requires a thorough assessment of each resident and the environment. A comprehensive fall risk assessment should be completed on admission, and repeated if there is a change in condition, after a fall occurs or at least quarterly. Although a number of standardized assessment tools are available, validity and reliability testing has focused primarily on the acute care setting. Regardless, the literature continues to show that using a standardized tool facilitates the assessment process and helps facility staff identify residents at highest risk for falls (Wagner, Scott, & Silver, 2011).

Fall Risk Assessment and Reassessment

In 2010, 85 percent of residents in the survey were assessed for fall risk within 24 hours of admission to the nursing facility.

During the survey period, 10 percent of residents had a recorded fall in the prior 30 days:

<u>2009</u>	<u>2010</u>
9%	10%

Of those residents who experienced a fall, 51 percent were reassessed for fall risk within 24 hours to identify contributing factors or changes in risk profile:

<u>2009</u>	<u>2010</u>
52%	51%

Care Planning Processes

The care plan is used to develop resident-centered interventions to address the risk factors identified through fall risk assessment and/or post-fall investigation. In 2010, 95 percent of residents had a care plan that addressed fall risk factors:

<u>2009</u>	<u>2010</u>
92%	95%

Fall-related Injuries

While most falls do not result in an injury, minor injuries such as bruises or lacerations can occur. Major injuries such as fractures can also happen and can have significant consequences; in the United State, the one year mortality rate after a hip fracture is estimated to be nearly 30% (Brauer, Coca-Perraillon, Cutler & Rosen, 2009).

In 2010, 66 percent of residents who fell had no fall-related injuries. Of those residents who did have a fall-related injury, two percent experienced a fracture of the hip, pelvis or upper extremity:

	<u>2010</u>
• Hip fracture	0.9%
• Pelvic fracture	0.9%
• Upper extremity fracture	0.5%

Immunizations

Influenza

Influenza is an acute respiratory illness, usually caused by one of two viruses (Influenza A or Influenza B). Infection with an influenza virus can result in moderate to severe illness that is easily transmitted from person to person. Influenza activity usually peaks between December and March, but cases may occur as early as October or as late as May. Influenza leads to nearly 200,000 hospitalizations and an average of 23,607 deaths annually in the United States. Ninety percent of influenza-related deaths occur in people 65 years of age or older. In nursing facilities, an influenza outbreak can affect up to 60 percent of residents, with a 30 percent mortality rate (CDC, 2012).

Residents of nursing facilities often have chronic medical conditions and changes in immune response that can leave them vulnerable to influenza-related complications. Influenza can lead to a further decline in activities of daily living, weight loss and worsening of pressure ulcers, likely due to immobility during illness (Gozalo, Pop-Vicas, Feng, Gravenstein & Mor, 2012).

Immunization is an essential part of any influenza control program. Annual vaccination is necessary, as the strains of the influenza virus in circulation can change from year to year. Current guidelines recommend immunization for all individuals residing in a nursing facility, as well as facility staff, unless it is medically contraindicated. The primary contraindications are a previous allergic reaction to the vaccine or an allergy to eggs (CDC, 2012).

Influenza Immunization Rates

In 2010, the percentage of residents who received the influenza vaccine was unchanged from the previous year but remained well below the Healthy People 2020 target of 90 percent:

<u>2008</u>	<u>2009</u>	<u>2010</u>
74%	76%	76%

Of those residents who did not receive the influenza vaccine, 63 percent had no contraindication to immunization and did not refuse the vaccine but were not immunized.

Pneumococcal Pneumonia

Pneumococcal pneumonia is a common bacterial infection, resulting in approximately 175,000 hospitalizations each year in the United States. The overall death rate for pneumococcal pneumonia is an estimated five to seven percent; however, the fatality rate is higher in older adults. Pneumococcal infections occur most often in the winter and early spring when respiratory diseases are more prevalent (CDC, 2012).

The pneumococcal vaccine is 60 percent to 70 percent effective in preventing invasive pneumococcal disease (pneumonia, sepsis or meningitis) but may be less effective in residents with underlying illnesses. Immunization is still recommended because of the high risk of

complications, such as respiratory and/or circulatory failure. Current guidelines recommend immunization of all adults 65 years of age or older, all residents of nursing facilities and anyone over the age of two with chronic medical conditions such as cardiovascular disease, pulmonary disease or diabetes. Those over the age of 65 should receive a second dose of the vaccine if it has been more than five years since the previous immunization and the individual was under the age of 65 at the time. According to the CDC, the only contraindication to immunization is a history of serious reaction to a previous dose of the pneumococcal vaccine or one of its components.

Pneumococcal Immunization Rates

In 2010, the pneumococcal immunization rate was 61 percent, well below the Healthy People 2020 target of 90 percent:

<u>2008</u>	<u>2009</u>	<u>2010</u>
61%	66%	61%

Of the 39 percent of residents who had no evidence of immunization, 28 percent refused the vaccine.

Medication Practice and Safety

Treatment decisions, including use of prescription and over-the-counter (OTC) medications, are made by the resident's physician, based on therapeutic goals established in collaboration with the resident, family members and other members of the health care team. The decision to prescribe a particular medication should include an evaluation of the risks versus any benefits of therapy, as well as the impact on the resident's quality of life (AMDA, *Multidisciplinary Medication Management Manual*, 2011).

Physician orders for prescription and over-the-counter medications are transcribed to the Medication Administration Record (MAR). Facility staff documents each medication as it is given to the resident, noting the dosage, route, frequency, date and time of administration. The MAR provides a history of all medications provided to the resident.

NACES pharmacists reviewed the MAR for each resident in the sample to determine prescribing practices.

Prescribed Medications

In 2010, the number of prescribed medications, including OTCs, increased over prior years:¹¹

<u>2005</u>	<u>2006</u>	<u>2007</u>	<u>2008</u>	<u>2009</u>	<u>2010</u>
11	11	11	11	12	12

When OTCs were excluded, the number of prescribed medications also increased when compared to previous years:¹²

¹¹ Statistically significant linear trend at $p < 0.1$.

<u>2005</u>	<u>2006</u>	<u>2007</u>	<u>2008</u>	<u>2009</u>	<u>2010</u>
8	8	8	8	8	9

Prescribed medications may have more than one active ingredient. This can reduce the overall number of pills or tablets given; however, the resident will still receive a higher number of active ingredients. In 2010, the number of active ingredients (excluding OTCs) also increased from prior years:¹³

<u>2005</u>	<u>2006</u>	<u>2007</u>	<u>2008</u>	<u>2009</u>	<u>2010</u>
9	9	9	9	9	10

Beers List

The Beers Criteria for Potentially Inappropriate Medication Use in Older Adults (Beers List) was initially developed by Dr. Mark Beers and a panel of experts in 1991. The Beers List initially focused on residents of nursing facilities, identifying medications that posed risks that outweighed the potential benefits. The Beers List was updated in 1997 and 2001 to include medications that were inappropriate for any individual over the age of 65, regardless of care setting. In 2011, the American Geriatrics Society (AGS) assembled a panel of experts and, using an evidence-based process, developed an updated version of the Beers List.

The Beers List is not intended to replace the attending physician’s clinical judgment or to dictate prescribing practices. Rather, it is meant to act as a reminder that if these medications must be given to a person over the age of 65, close monitoring for adverse effects is necessary (AGS, 2012).

In 2010, 14 percent of residents received at least one medication on the Beers List:

<u>2005</u>	<u>2006</u>	<u>2007</u>	<u>2008</u>	<u>2009</u>	<u>2010</u>
16%	15%	17%	14%	15%	14%

The most commonly used medication from the Beers List was digoxin, used to treat a number of heart conditions, including atrial fibrillation and heart failure. Digoxin has a narrow therapeutic range, and toxicity can develop due to age-related changes in renal function and dehydration. In addition some medications, when taken concurrently with digoxin, can cause elevated levels of digoxin in the blood. If the physician determines digoxin is necessary for treatment, blood levels must be monitored regularly (Cheng & Rybak, 2010).

¹² Statistically significant linear trend at $p < 0.1$.

¹³ Statistically significant linear trend at $p < 0.1$.

Nutrition, Unintended Weight Loss and Hydration

Assessment of residents' nutritional and hydration status is a key component of care in nursing facilities. Unintended weight loss can have serious adverse effects, including muscle wasting, delayed wound healing, impaired immune function and cognitive decline (AMDA, *Altered Nutritional Status in the Long-Term Care Setting*, 2010). Weight loss is also associated with a significant increase in mortality rate: a 10 percent weight loss over a six-month interval has been found to be a strong predictor of mortality in the next six months. In one study, a five percent loss of body weight in any month was associated with a 10-fold increase risk for death compared with residents who gained weight (Thomas, 2008). Of residents who remain in nursing facilities for at least two years, up to 60 percent experience weight change, with equal numbers of residents gaining and losing weight. Risk factors for unintended weight loss include AMDA, *Altered Nutritional Status in the Long-Term Care Setting*, 2010):

- Chronic disease processes, such as diabetes, cancer, cardiovascular disorders
- Advanced dementia
- Oral disease, such as poor dentition, ill-fitting dentures
- Medications
- Depression
- Swallowing disorders
- Therapeutic diets

The prevalence of dehydration in nursing facilities has not been sufficiently established. Due to variations in the definition of dehydration, published studies do not provide a reliable estimate of how frequently it occurs. Maintaining adequate fluid balance is essential for body temperature regulation, sustaining blood pressure and for waste elimination. Older adults are more vulnerable to changes in fluid balance due to a variety of age-related changes, including loss of lean body mass and decrease in thirst mechanism. Risk factors for dehydration are similar to those for weight loss, as well as (AMDA, 2009):

- Acute illness, including fever, vomiting and diarrhea
- Dietary restrictions, such as thickened liquids or fluid restrictions
- Tube feedings
- Dependence on others for activities of daily living
- Use of physical restraints

Proportion with a Comprehensive Nutritional Assessment

In 2010, 92 percent of residents had a comprehensive nutritional assessment completed:

<u>2007</u>	<u>2008</u>	<u>2009</u>	<u>2010</u>
93%	93%	93%	92%

Residents were more likely to have a nutritional assessment that included an estimation of nutritional needs than in previous years:¹⁴

¹⁴ Statistically significant linear trend at $p < 0.1$.

<u>2007</u>	<u>2008</u>	<u>2009</u>	<u>2010</u>
95%	97%	99%	99%

Risk Factors for Weight Loss and Dehydration

Residents were more likely to be assessed for risk factors for weight loss than in previous years:¹⁵

<u>2007</u>	<u>2008</u>	<u>2009</u>	<u>2010</u>
65%	69%	71%	75%

Residents were more likely to have an assessment of risk factors for dehydration than in previous years:¹⁶

<u>2007</u>	<u>2008</u>	<u>2009</u>	<u>2010</u>
53%	63%	70%	78%

Care Planning Processes

In 2010, 67 percent of care plans addressed risk factors for weight loss:¹⁷

<u>2009</u>	<u>2010</u>
65%	67%

Sixty-nine percent of care plans addressed risk factors for dehydration:¹⁸

<u>2009</u>	<u>2010</u>
63%	69%

Pain Assessment and Control

Pain is an unpleasant sensory and emotional experience associated with actual or potential tissue damage or described in terms of such damage (International Association for the Study of Pain (IASP), 2011). Pain is subjective and is often influenced by memories, emotions, expectations and previous episodes of pain (AGS, 2009).

Persistent pain is common in older adults but is not a normal part of the aging process. Pain is often related to musculoskeletal changes, such as arthritis or neuropathic disorders that occur with diabetes mellitus, shingles or following amputation. In addition, up to 80 percent of residents diagnosed with cancer experience pain during the course of the disease (AGS, 2009).

¹⁵ Statistically significant linear trend at $p < 0.1$.

¹⁶ Statistically significant linear trend at $p < 0.1$.

¹⁷ This question was not asked in 2008, and was worded differently in 2007.

¹⁸ This question was not asked in 2008, and was worded differently in 2007. Statistically significant linear trend at $p < 0.1$.

The majority of nursing facility residents have at least one condition that is associated with pain, with pain prevalence estimated to be as high as 55 percent (AMDA, *Pain Management in the Long Term Care Setting Clinical Practice Guideline*, 2012).

Persistent pain, or insufficient treatment for pain, can lead to a number of adverse outcomes, including depression, sleep disturbances, changes in appetite, falls and an increase in functional impairment (AMDA, *Pain Management in the Long Term Care Setting Clinical Practice Guideline*, 2012). Inadequate assessment, concern about adverse reactions and polypharmacy all contribute to the under-treatment of pain in nursing facilities. Furthermore, residents with cognitive impairment may have difficulty expressing pain verbally; the pain experience may instead be expressed through increased agitation, aggression and anxiety. Pain in residents with cognitive impairment may go unrecognized, leading to inappropriate treatment with psychotropic medications (Haasum, Fastbom, Fratiloni, Kareholt & Johnell, 2011).

Successful pain management programs include processes for completing comprehensive pain assessments, along with re-evaluations to determine the effectiveness of treatment. Standardized, evidence-based assessment tools are an important component of any pain management program. A variety of valid and reliable assessment tools are available, including tools developed specifically for evaluating residents with dementia or other cognitive impairments (AMDA, *Pain Management in the Long Term Care Setting Clinical Practice Guideline*, 2012).

Pain Assessment and Reassessment

Residents were more likely to be assessed for pain using a validated assessment tool in recent years:¹⁹

<u>2006</u>	<u>2007</u>	<u>2008</u>	<u>2009</u>	<u>2010</u>
40%	71%	70%	74%	90%

When treatment for pain was provided, reassessments were completed 50 percent of the time.

Consistently using the same validated tool for each subsequent assessment increases the reliability of the assessment process. Consistent use of the same validated tool improved over the years:²⁰

<u>2006</u>	<u>2007</u>	<u>2008</u>	<u>2009</u>	<u>2010</u>
35%	64%	64%	66%	84%

Resident Satisfaction

Most residents expressed satisfaction with their level of pain control, similar to previous years:

<u>2006</u>	<u>2007</u>	<u>2008</u>	<u>2009</u>	<u>2010</u>
93%	94%	95%	95%	92%

¹⁹ Statistically significant linear trend at $p < 0.1$.

²⁰ Statistically significant linear trend at $p < 0.1$.

Pressure Ulcers

A pressure ulcer is a localized injury to the skin and/or underlying tissue usually over a bony prominence, such as the hips or the tailbone. Pressure ulcers occur as a result of pressure or pressure in combination with shear (European Pressure Ulcer Advisory Panel and National Pressure Ulcer Advisory Panel (NPUAP), 2009). Unrelieved pressure compresses the capillaries in the skin and subcutaneous tissues, impairing circulation and leading to tissue death. Pressure ulcers can develop rapidly, within two to six hours, if preventative measures are not in place (Lyder & Ayello, 2008). Serious complications can develop and contribute to increased mortality; the most common of these are infections. Other complications include pain and depression (Duncan, 2007 & Lynn et al., 2007).

Nationwide, the incidence of pressure ulcers in nursing facilities is between 2.2 percent and 23 percent. Treating a pressure ulcer is estimated to cost 2.5 times the cost of prevention, adding approximately \$37,000 on average to the cost of care (Lyder & Ayello, 2008). The total cost of treatment is estimated at \$11 billion annually (Duncan, 2007).

Risk Factors for Pressure Ulcers

Nursing facility residents tend to be medically fragile, with multiple chronic disease processes. Many of those diagnoses also increase the risk for developing pressure ulcers, such as diabetes mellitus, peripheral vascular disease and dementia. Other risk factors include mobility impairment, incontinence, dehydration, malnutrition and use of physical restraints. Aging is also a risk factor, due to the loss of subcutaneous fat and skin elasticity (Lyder & Ayello, 2008).

In 2010, 70 percent of the residents evaluated had at least one risk factor for developing pressure ulcers. Care plans for 85 percent of these residents addressed the risk factors for pressure ulcer development, including:

	<u>2009</u>	<u>2010</u>
• Bedridden and repositioned at least every two hours ²¹	23%	30%
• In chair, able to self-shift weight every 15 minutes ²²	19%	38%
• In chair, repositioned by staff at least every one hour ²³	9%	21%
• Other interventions ²⁴	34%	22%

²¹ More residents with risk factors for pressure ulcers had plans that included repositioning at least every two hours than in the previous year. The difference is statistically significant at $p < 0.1$.

²² More residents with risk factors for pressure ulcers had plans that addressed self-shifting weight every 15 minutes than in the previous year. The difference is statistically significant at $p < 0.1$.

²³ More residents with risk factors for pressure ulcers had plans that included repositioning in their chairs every hour than in the previous year. The difference is statistically significant at $p < 0.1$.

²⁴ Fewer residents with risk factors for pressure ulcers had a plan other than the ones listed to address those risk factors than in the previous year. The difference is statistically significant at $p < 0.1$.

Incidence of Pressure Ulcers

Eight percent of residents had at least one documented pressure ulcer:

<u>2009</u>	<u>2010</u>
9%	8%

Sixty-two percent of the pressure ulcers developed after admission to the nursing facility:

<u>2009</u>	<u>2010</u>
60%	62%

Treatment plans for any pressure ulcer must be based on a thorough assessment of the resident and the wound. Specific wound characteristics such as location, depth and presence of necrotic tissue guide the treatment choices, in accordance with the resident's values and wishes (AMDA, 2008). In 2010, 86 percent of residents with pressure ulcers had a treatment plan in place:

<u>2009</u>	<u>2010</u>
92%	86%

Pressure ulcer staging is based on the level of injury to the skin and/or the underlying tissues. (NPUAP, 2009). In 2010, the most frequently documented pressure ulcers were Stage II.

<u>Highest Stage Pressure Ulcer Documented</u>	<u>2009</u>	<u>2010</u>
Stage I	18%	15%
Stage II	44%	53%
Stage III	9%	9%
Stage IV	14%	9%
Unstageable	15%	13%

Psychoactive Medication Usage

Psychoactive medications are substances that act on the central nervous system, causing changes in mood, behavior, cognition or consciousness. Antipsychotics, anxiolytics, sedatives and hypnotics are all examples of psychoactive medications. Psychoactive medications are commonly used to treat sleep disturbances or to manage behavioral and psychiatric symptoms, particularly in residents with dementia.

More than 50 percent of older adults admitted to a nursing facility receive psychoactive medications within two weeks of admission. In one study of older residents with dementia, 87 percent were taking at least one psychoactive medication, and 11 percent were taking four or more. People over the age of 65 are at higher risk for adverse effects of psychoactive medications, and the risk increases substantially with aging and polypharmacy (Lindsey, 2009).

Antipsychotic Medications

Antipsychotic medications include:

- Typical or first generation antipsychotics, such as haloperidol, chlorpromazine and loxapine
- Atypical or second generation antipsychotics, such as risperidone, olanzapine and quetiapine

These medications are approved by the U.S. Food and Drug Administration (FDA) only for the treatment of psychiatric disorders such as schizophrenia and bipolar disorder. Antipsychotic medications are associated with a number of adverse reactions, such as sedation, weight gain, hypotension and neurological changes. In 2005, the FDA issued a “black box warning” (the strongest FDA warning) noting an increased risk of mortality in older adults with dementia when taking atypical antipsychotics. In 2008, the warning was expanded to include typical antipsychotics as well. The FDA noted most of the deaths were due to heart related events or infections.

The Centers for Medicare & Medicaid Services (CMS) recently launched an initiative to reduce the inappropriate use of antipsychotic medications in nursing facilities, beginning with a 15 percent decrease in use by the end of 2012. The following diagnoses are appropriate indications for antipsychotic medication use in nursing facility residents, according to CMS (2012):

- Schizophrenia
- Huntington’s disease
- Tourette’s syndrome

Antipsychotic medications have never been an FDA approved therapy for managing dementia-related behaviors.

Prevalence of Antipsychotic Medication Use

In 2010, the percentage of residents who received at least one antipsychotic medication was unchanged from the previous year:

<u>2005</u>	<u>2006</u>	<u>2007</u>	<u>2008</u>	<u>2009</u>	<u>2010</u>
34%	33%	32%	30%	32%	32%

Of those residents who received antipsychotics, atypical antipsychotics were more commonly prescribed:²⁵

	<u>2005</u>	<u>2006</u>	<u>2007</u>	<u>2008</u>	<u>2009</u>	<u>2010</u>
Typical antipsychotics ²⁶	12%	14%	13%	14%	18%	17%
Atypical antipsychotics ²⁷	93%	94%	92%	91%	89%	89%

²⁵ An individual could be taking more than one type of antipsychotic medication, so percentages will total more than 100.

²⁶ Statistically significant linear trend at $p < 0.1$.

²⁷ Statistically significant linear trend at $p < 0.1$.

The percentage of residents receiving antipsychotics for dementia-related behavior (black box warning) was:

	<u>2005</u>	<u>2006</u>	<u>2007</u>	<u>2008</u>	<u>2009</u>	<u>2010</u>
Typical antipsychotics	47%	41%	33%	45%	33%	38%
Atypical antipsychotics ²⁸	41%	41%	29%	33%	32%	32%

Anti-anxiety Medications

Anxiety is a general term that covers various forms of psychiatric disorders, including:

- Generalized anxiety disorder
- Panic disorder
- Obsessive-compulsive disorder
- Post-traumatic stress disorder
- Social anxiety disorder
- Specific phobia

Anxiety disorders are characterized by constant and debilitating worry, often about routine events. Between three and 14 percent of older adults may be affected by an anxiety disorder in any given year. Anxiety disorders affect women more frequently than men and often occur with other illnesses such as depression, heart disease and diabetes. Specific phobias and generalized anxiety disorder are the most common anxiety disorders in older adults (National Institutes of Mental Health (NIMH), 2012).

Anti-anxiety medications (anxiolytics) are often prescribed but may not always be the best choice for first line treatment of an anxiety disorder. Nursing facility residents tend to have multiple medical conditions and receive a number of medications, increasing the potential for adverse drug reactions. Commonly prescribed medications for anxiety include:

- Buspirone
- Antidepressants such as escitalopram, paroxetine, venlafaxine or duloxetine
- Benzodiazepines such as clonazepam, lorazepam, or alprazolam

Psychotherapy, including cognitive-behavioral therapy, has been found to be useful in treating anxiety disorders. Cognitive-behavioral therapy can help change the thinking patterns that support the source of anxiety, while helping the person change his or her reaction to situations that increase anxiety (NIMH, 2012).

Prevalence of Residents with a Documented Anxiety Disorder

The percentage of residents diagnosed with an anxiety disorder has increased over the years:²⁹

<u>2005</u>	<u>2006</u>	<u>2007</u>	<u>2008</u>	<u>2009</u>	<u>2010</u>
12%	7%	7%	16%	16%	21%

²⁸ Statistically significant linear trend at $p < 0.1$.

²⁹ Statistically significant linear trend at $p < 0.1$.

Forty-five percent of residents with an anxiety disorder had documentation of ongoing assessment (at least every two weeks) to evaluate goals of therapy.³⁰

<u>2005</u>	<u>2006</u>	<u>2007</u>	<u>2008</u>	<u>2009</u>	<u>2010</u>
22%	7%	22%	45%	48%	45%

Percentage of Residents Receiving Anti-anxiety Medications

More residents have received anti-anxiety medication, as the years have progressed.³¹

<u>2005</u>	<u>2006</u>	<u>2007</u>	<u>2008</u>	<u>2009</u>	<u>2010</u>
19%	21%	21%	22%	23%	23%

The reported proportion of individuals diagnosed with an anxiety disorder is independent of the reported proportion of individuals on anti-anxiety medications. The proportion diagnosed with anxiety was calculated from NFQR 2010 data. The proportion on anti-anxiety medications is based on self-reported CMS data from nursing facilities during different times each year. Since the data, methodology and sample population are different for the proportion diagnosed with an anxiety disorder and the proportion on anxiety medications, inferences should not be drawn between the two proportions.

Sedative/Hypnotic Medications

With aging, complaints of sleep disturbances become more common. More than 50 percent of adults 65 years of age or older report problems with sleep, including difficulty getting to sleep, trouble sustaining sleep and not feeling rested on awakening. Older adults tend to spend more time in bed but have difficulty initiating sleep and total sleep time is decreased (Subramanian & Surani, 2007). A number of factors can contribute to sleep disturbances in older adults, including: (National Institutes of Health (NIH), 2012):

- Chronic medical conditions such as congestive heart failure, arthritis, asthma, or emphysema
- Depression, anxiety or delirium
- Medications such as corticosteroids, antihypertensive agents, or antidepressants
- Stimulants such as caffeine
- Alzheimer's disease
- Movement disorders such as restless leg syndrome

Pharmacological and non-pharmacological interventions are available for treatment of sleep disturbances in older adults. Sedatives/hypnotics can increase the risk of falls and fractures; therefore, they should be a short-term intervention, beginning with no more than half the lowest dose recommended for younger adults. Non-pharmacological interventions have demonstrated efficacy in managing sleep disturbances but are often not implemented. Examples of non-pharmacological interventions include (Subramanian & Surani, 2007):

- Sleep hygiene - addressing environmental factors that could be interfering with sleep

³⁰ Statistically significant linear trend at $p < 0.1$.

³¹ Statistically significant linear trend at $p < 0.1$.

- Behavioral therapy – stimulus control, relaxation, sleep restriction
- Cognitive behavioral therapy

Prevalence of Sleep Disturbances

The percentage of residents who complained of sleep problems (within the last 14 days) increased over the years:³²

<u>2005</u>	<u>2006</u>	<u>2007</u>	<u>2008</u>	<u>2009</u>	<u>2010</u>
9%	6%	5%	8%	8%	15%

Residents who had problems sleeping were evaluated for sleep hygiene:³³

<u>2007</u>	<u>2008</u>	<u>2009</u>	<u>2010</u>
2%	12%	12%	12%

Use of Sedative/Hypnotic Medications

The percentage of residents with an active prescription for sleep medication increased from previous years:³⁴

<u>2005</u>	<u>2006</u>	<u>2007</u>	<u>2008</u>	<u>2009</u>	<u>2010</u>
16%	13%	13%	15%	16%	19%

Only 12 percent of residents with sleep problems had non-pharmacological interventions attempted prior to use of sedative/hypnotic medication. Twelve percent of residents continued to have sleep problems, despite the use of medication.

Quality of Life/Consumer Satisfaction

Quality of life is a subjective measurement of residents’ experiences in the nursing facility. Quality of life addresses not only concerns regarding health status and treatment but also satisfaction with relationships, activities, autonomy, privacy, dining and safety/security. Information was gathered from the residents or their family members/guardians if residents were unable to answer the survey questions.

Overall Satisfaction with Nursing Facility Experience

In 2010, 90 percent of residents surveyed expressed satisfaction with their experience in the nursing facility:

<u>2007</u>	<u>2008</u>	<u>2009</u>	<u>2010</u>
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³² Statistically significant linear trend at $p < 0.1$.

³³ Statistically significant linear trend at $p < 0.1$.

³⁴ Statistically significant linear trend at $p < 0.1$.

87% 88% 89% 90%

Ninety percent of the residents surveyed expressed satisfaction with the healthcare services they received:

<u>2008</u>	<u>2009</u>	<u>2010</u>
88%	90%	90%

Satisfaction with Food and Dining Experience

In 2010, residents were asked about their satisfaction with meals and snacks provided at the nursing facility, as well as the overall dining experience:

	<u>2007</u>	<u>2008</u>	<u>2009</u>	<u>2010</u>
• Do you like the food? ³⁵	78%	84%	85%	85%
• Are your favorite foods available? ³⁶	64%	67%	67%	71%
• Do you enjoy mealtimes? ³⁷	85%	87%	87%	89%

Satisfaction with Activities at the Nursing Facility

The percentage of residents who stated they enjoyed the organized activities at the nursing facility was unchanged from the previous year:

<u>2007</u>	<u>2008</u>	<u>2009</u>	<u>2010</u>
66%	64%	62%	62%

Residents indicated weekend activities (other than religious activities) were more available over time:³⁸

<u>2007</u>	<u>2008</u>	<u>2009</u>	<u>2010</u>
37%	40%	44%	49%

Safety and Security at the Nursing Facility

Ninety-eight percent of residents surveyed expressed feeling safe and secure at the nursing facility:³⁹

<u>2007</u>	<u>2008</u>	<u>2009</u>	<u>2010</u>
94%	97%	98%	98%

³⁵ Statistically significant linear trend at $p < 0.1$.

³⁶ Statistically significant linear trend at $p < 0.1$.

³⁷ Statistically significant linear trend at $p < 0.1$.

³⁸ Statistically significant linear trend at $p < 0.1$.

³⁹ Statistically significant linear trend at $p < 0.1$.

Two percent of residents surveyed stated they did not feel safe and secure at the nursing facility. Reasons given included:⁴⁰

	<u>2008</u>	<u>2009</u>	<u>2010</u>
• Direct care staff	16%	12%	21%
• Non-care staff	6%	7%	7%
• Other persons ⁴¹	14%	22%	45%
• Environmental concerns	6%	5%	9%
• Other ⁴²	17%	42%	36%

The percentage of residents who felt their possessions were safe continued to increase from previous years:⁴³

<u>2007</u>	<u>2008</u>	<u>2009</u>	<u>2010</u>
79%	89%	89%	92%

Restraints

Physical restraints are any manual method, physical device, material or equipment that is attached or adjacent to an individual's body that restricts freedom of movement or normal access to his/her body, and that the individual cannot easily remove (CMS, 2012). Physical restraints have been used for many years as an intervention for fall prevention, to manage wandering behavior or to prevent tampering with medical devices such as intravenous lines, feeding tubes and indwelling bladder catheters. Over the past two decades, however, research has demonstrated that restraints do not prevent falls, and residents are more likely to be seriously injured if a fall occurs while restrained. In addition, other methods for managing wandering, behavioral issues and disruption of medical devices have been found to be more effective than physical restraint (Agens, 2010).

Chemical restraints are medications used for discipline or convenience and that are not required to treat medical symptoms (CMS, 2012). Chemical restraints have been used in attempts to manage behaviors that are distressing to the resident, other residents in the facility and/or caregivers, as well as interference with medical devices. Agitation, aggressiveness, pacing, wandering and yelling are behaviors that can lead to the use of chemical restraints (Moore & Haralambous, 2007).

A number of adverse consequences have been associated with the use of physical and chemical restraints, including depression, agitation, incontinence, pressure ulcers, muscle atrophy, injury and even death (Agens, 2010). The Federal Nursing Home Reform Act of 1987 (OBRA '87) stipulates that nursing facility residents should not be subjected to physical or chemical restraints

⁴⁰ More than one answer could be given, therefore responses may total to more than 100 percent.

⁴¹ Statistically significant linear trend at $p < 0.1$. In 2010, the question referred to other residents, not other persons. This could explain the increase.

⁴² Statistically significant linear trend at $p < 0.1$.

⁴³ Statistically significant linear trend at $p < 0.1$.

as a form of discipline, to ease staff work load or as an alternative to addressing the underlying causes of the medical symptoms offered to justify the use of restraints.

Use of Restraints

In 2010, 41 percent of residents were restrained in some manner. This percentage has increased over the years:⁴⁴

<u>2008</u>	<u>2009</u>	<u>2010</u>
29%	26%	41%

Physical (mechanical) restraints were used more frequently than chemical restraints:⁴⁵

	<u>2010</u>
• Mechanical Restraints	98%
• Personal Restraint ⁴⁶	2%
• Chemical Restraints	10%

In 2010, bedrails were the most commonly used physical restraint:⁴⁷

	<u>2008</u>	<u>2009</u>	<u>2010</u>
• Full bedrails ⁴⁸	58%	51%	46%
• Bedrails/other ⁴⁹	32%	39%	48%
• Trunk restraint	3%	5%	4%
• Limb restraint ⁵⁰	1%	<1%	<1%
• Chair prevents rising ⁵¹	18%	9%	10%

Typical antipsychotics were the most frequently used chemical restraint in 2010:

	<u>2010</u>
• Typical antipsychotics	7%
• Atypical antipsychotics	<1%
• Anxiolytics	1%
• Sedatives/hypnotics	4%

⁴⁴ Statistically significant linear trend at $p < 0.1$.

⁴⁵ Percentages will total more than 100% since more than one type of restraint could be used for the same person.

⁴⁶ Personal restraint refers to the use of physical force without the use of any device, for the purpose of restraining free movement of a person’s body.

⁴⁷ Percentages will total more than 100% since more than one type of restraint could be used for the same person.

⁴⁸ Statistically significant linear trend at $p < 0.1$.

⁴⁹ Statistically significant linear trend at $p < 0.1$.

⁵⁰ Statistically significant linear trend at $p < 0.1$.

⁵¹ Statistically significant linear trend at $p < 0.1$.

Reasons for Restraint Use

In 2010, 25 percent of the restraints used were initiated at the request of a family member or responsible party. The reasons documented for restraint use included:⁵²

	<u>2008</u>	<u>2009</u>	<u>2010</u>
• Control disruptive behavior	2%	1%	2%
• Control physically aggressive behavior	NA	NA	1%
• Control wandering	6%	3%	7%
• Control getting out of bed at night	12%	13%	13%
• Other ⁵³	58%	70%	67%
• Unable to determine	23%	15%	21%

NACES examiners were asked to determine whether alternatives to restraint were attempted: 89 percent of residents who were restrained had no alternatives documented.

Tube Feeding

A feeding tube is a medical device used to provide artificial nutrition and hydration. Nasogastric tubes are inserted through the nose to the stomach and are generally for short-term use only. For long-term use, the feeding tube is surgically inserted through the abdomen to the stomach or small intestine. Tube feedings may be indicated when a resident:

- has swallowing difficulties
- is unable to consume adequate calories by mouth to maintain nutritional status
- has a decreased appetite
- had a surgery that interferes with oral feeding

While tube feeding may be beneficial in specific situations, it has not been shown to improve clinical outcomes, heal or prevent pressure ulcers, or prevent aspiration in residents with advanced dementia. Nationwide, up to one-third of residents with advanced dementia have a feeding tube inserted; most are placed during an acute hospital stay (Teno, 2010). Data suggest that there is no clinical benefit to tube feeding in those with a terminal illness, and that tube feedings can actually lead to a variety of complications such as infection, aspiration and hemorrhage (Furhman, 2008). The decision to insert a feeding tube must address the risks and benefits of artificial nutrition and hydration. The resident's advance directives (if any) should be reviewed before inserting a feeding tube to ensure the treatment is in line with his or her values and wishes.

Percentage of Residents Receiving Tube Feeding

In 2010, the percentage of residents who received tube feedings was unchanged from the previous year:

⁵² More than one reason may have been documented; therefore total will be more than 100%.

⁵³ Statistically significant linear trend at $p < 0.1$.

<u>2005</u>	<u>2006</u>	<u>2007</u>	<u>2008</u>	<u>2009</u>	<u>2010</u>
8%	7%	8%	8%	7%	7%

Twenty-nine percent of residents receiving tube feedings (or their representatives) were provided with information regarding the risks and benefits of tube feedings.

Use of Feeding Tube for More Than 30 days

Residents who receive tube feedings need to be reassessed at least every 30 days to determine the effectiveness of the tube feedings and progress toward the goals of treatment. Although decreased from 2009, the percentage of residents reassessed in the previous 30 days has increased over the years:⁵⁴

<u>2005</u>	<u>2006</u>	<u>2007</u>	<u>2008</u>	<u>2009</u>	<u>2010</u>
44%	21%	65%	64%	72%	59%

Use of Feeding Tubes in Residents with Late-Stage Dementia or Other End-Stage Illness

Interviewers were asked to determine whether residents who were receiving tube feedings had any of the following conditions:

- Late-stage dementia
- End-stage illness, such as metastatic cancer or organ failure
- A performance score of three or higher on the Eastern Cooperative Oncology Group (ECOG) Performance Scale⁵⁵

In 2010, 37 percent of residents with late-stage dementia or another end-stage illness were receiving tube feedings:

<u>2005</u>	<u>2006</u>	<u>2007</u>	<u>2008</u>	<u>2009</u>	<u>2010</u>
38%	31%	31%	40%	44%	37%

Urinary Continence

Urinary incontinence (UI), or loss of bladder control, affects up to 59 percent of all nursing facility residents in the United States (AMDA, *Urinary Incontinence in the Long Term Care Setting Clinical Practice Guideline*, 2012). While UI is not a normal part of the aging process, the incidence does increase with age and can lead to a higher risk of falls, fractures and nursing facility admission (Anger et al., 2006). UI is generally related to a specific medical condition or functional impairment such as urinary tract dysfunction, diabetes mellitus, dementia or parkinsonism. Increased caffeine intake, smoking, obesity and some medications can also contribute to the onset of UI (Holroyd-Leduc et al., 2007).

⁵⁴ Statistically significant linear trend at $p < 0.1$.

⁵⁵ The ECOG Scale is a measure of disease progression and how the individual's daily living activities are impacted, as well as determining appropriate treatment and prognosis.

Untreated, UI can lead to urinary tract infections, development of pressure ulcers and recurrent falls. In addition to the adverse physical effects, UI can also lead to a number of psycho-social issues, including depression, social isolation and loss of dignity (AMDA, *Urinary Incontinence in the Long Term Care Setting Clinical Practice Guideline*, 2012).

Treatment of UI is based on a thorough assessment, identifying any potentially reversible causes for incontinence. An individualized plan of care must be developed that addresses the goals of the resident and family, whether that is complete reversal of incontinence or a decrease in the number of incontinent episodes. The primary goal of any continence promotion plan is to improve the resident's quality of life (AMDA, *Urinary Incontinence in the Long Term Care Setting Clinical Practice Guideline*, 2012).

Prevalence of Urinary Incontinence

In 2010, 64 percent of Texas nursing facility residents were usually incontinent:

<u>2009</u>	<u>2010</u>
64%	63%

Of those residents who were usually incontinent, 21 percent had a terminal illness or were receiving palliative care and chose not to participate in a continence promotion plan.

Continence Promotion Plans

Sixteen percent of residents who were usually incontinent had a documented plan for continence promotion:

<u>2007</u>	<u>2008</u>	<u>2009</u>	<u>2010</u>
12%	16%	14%	16%

The most effective continence promotion plans are based on an evaluation of the resident's normal voiding patterns. Of those residents who were usually incontinent and had a documented continence promotion plan, 84 percent had a plan that was based on normal voiding patterns:⁵⁶

<u>2009</u>	<u>2010</u>
77%	84%

Ninety percent of residents who were usually incontinent experienced two or more episodes of UI in the two weeks prior to the survey; however, the success of any continence promotion plan should be directly related to the resident's goals and needs.

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⁵⁶ Data collected prior to 2009 included residents who were placed on every two-hour toileting schedules. This type of plan was not based on evaluations of normal voiding patterns.

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Appendix B

Nursing Facility Quality Review 2010 Survey Instrument with Results

**Department of Aging and Disability Services
2010 Nursing Facility Quality Review
Resident Assessment
(Valid Percentages listed)
Number of residents surveyed - 2172**

Instructions: CHOOSE ONLY ONE ANSWER FOR EACH QUESTION that offers a choice of responses. Please print clearly.

 -signifies the person is asked the question.

Part 1. Identifying Information

1.1 Date of Assessment ____ / ____ /2010
(M) (D)

1.2 Facility's Texas Vendor Number _____

1.3 Quality Review Nurse's Identifier Number _____

1.4 Person's DADSID _____

1.5 Admission Date ____ / ____ / ____ (Average days in facility 489 [1.34 yrs])
(M) (D) (Year)

1.6 Person's Date of Birth ____ / ____ / ____ (Average age 82 yrs old)
(M) (D) (Year)

1.7 Person's Gender ¹ Male (30.8) ² Female (69.2)

1.8 What is the person's height? ____ feet ____ inches (mean 64.8 inches/5 ft 4.8 in)

1.9 What is the person's weight? _____ pounds (mean 157.37 lbs)

BMI Categories (BMI mean 26.353)

Underweight (9.1%)
Normal (41.3%)
Overweight (26.7%)
Obese (22.9%)

1.10 What is the person's blood pressure? ____ / ____ . (mean 126.88/70.62)

**1.11 What is the person's most recent serum glucose (2010)? _____ mg/dl
(mean 107.49 mg/dl)**

1.12 What is the person's most recent lipid profile (2009-2010)?

Cholesterol _____ mmol/L or _____ no test done (mean 156.04 mmol/L)

LDL _____ mmol/L or _____ no test done (mean 93.90 mmol/L)

HDL _____ mmol/L or _____ no test done (mean 43.02 mmol/L)

Triglycerides _____ mmol/L or _____ no test done (mean 127.05 mmol/L)

1.13 Is this person receiving hospice or palliative services?

¹ Yes (9.9%)

² No (90.1%)

1.14 Does this person have a diagnosis of Alzheimer's Disease, dementia or cognitive impairment?

¹ Yes (63.3%)

² No (36.7%)

NOTE:

For all questions in Parts 2 through 17, with a few exceptions that are noted explicitly in the guidance, each question is meant to be answered independently of all other questions.

Part 2. Assessment of Urinary Continence

NOTE: Perform a continence check (ITEM 2.1) on every person in the sample prior to collecting the remaining data items for any person.

2.1 Did you find (see, smell, or feel) evidence of urinary incontinence?

¹ Yes (36.1%)

² No (63.9%)

2.2 Is the person usually continent *without needing* a toileting plan, incontinence products or a catheter?

¹ Yes (36.5%)

² No (63.5%)

----- If item 2.2 was answered YES, then skip to Part 3 -----

2.3 Have there been two or more episodes of urinary incontinence each week in the last two weeks?

¹ Yes (90.44%)

² No (9.6%)

2.4 Does the person have a terminal condition or palliative plan of care that precludes a continence promotion plan (toileting)?

- ¹ Yes (20.8%) ² No (50.3%)

2.5 Is a continence promotion plan (toileting plan) (prompted voiding-PV, scheduled voiding-SV or bladder retraining-BR) specifically documented as part of the person's care plan? (NOTE: If more than one applies, answer with first answer from the list that applies to this person)

- ¹ Yes-PV (3.5%) ² Yes-SV (18.2%) ³ Yes-BR (0.6%)
- ⁴ No (77.7%)

2.6 Is the plan based on the person's voiding pattern and needs?

- ¹ Yes (83.8%) ² No (16.2%) ³ There is no plan

2.7 Does the person refuse to follow their plan for urinary incontinence?

- ¹ Most of the time (7.0%) ² Sometimes (15.8%) ³ Almost never (77.2%)
- ⁸ No plan

 **2.8 (Ask the person) Do you ever refuse help to use the bathroom when you need to?**

- ¹ Yes (3.7%) ² No (96.3%) ³ No response

 **2.9 (Ask the person) Is this because help is offered when it's not convenient for you?**

- ¹ Yes (34.6%) ² No (65.4%) ³ No response

Part 3. Use of Indwelling Bladder Catheter

Question 3.1 MUST BE ANSWERED. Questions 3.2 through 3.8 MUST BE ANSWERED when the answer to 3.1 is YES.

3.1 Does the person have an indwelling bladder catheter?

- ¹ Yes (6.0%) ² No (94.0%)

----- If item 3.1 was answered NO, then skip to Part 4 -----

3.2 Has the person had an indwelling bladder catheter longer than 6 weeks?

- ¹ Yes (73.3%) ² No (26.7%)

3.3 Does the person's medical therapy prescribed by a physician require an indwelling bladder catheter for an accurate intake and output?

¹ Yes (19.8%) ² No (80.2%)

3.4 Does the person have an indwelling bladder catheter for the purpose of completing a specific diagnostic evaluation?

¹ Yes (4.6%) ² No (95.4%)

3.5 Does the person have an indwelling bladder catheter that is being used to administer a prescribed medication? (Do not count routine GU irrigant solutions.)

¹ Yes (0.8%) ² No (99.2%)

3.6 Does this person have evidence of obstructive uropathy, bladder outlet obstruction, hydronephrosis, detrusor areflexia, detrusor hypo- or hyperreflexia, detrusor-sphincter dyssynergia, vesicoureteral reflux, or infravesical obstruction due to stricture or prostate pathology? (Answer YES only if there is documentation that urological, urodynamic, or imaging evaluation has shown one or more of the diagnoses in 3.6.)

¹ Yes (27.5%) ² No (72.5%)

3.7 Does the medical record reflect two or more post-voiding residual (PVR) urine volumes greater than 200cc?

¹ Yes (5.3%) ² No (94.7%)

3.8 Does the person have active Stage III or IV pressure ulcers that would be vulnerable to urinary moisture? (Regardless of location if urine would affect the sores)

¹ Yes (16.0%) ² No (84.0%)

Part 4. Pressure Ulcers

4.1 Does the person have risk factors for a pressure ulcer? (Questions 4.1 and 4.4 MUST BE ANSWERED. Questions 4.2 and 4.3 MUST BE ANSWERED when the answer to question 4.1 is YES. Questions 4.5 through 4.8 MUST BE ANSWERED when the answer to question 4.4 is 1 or more.)

¹ Yes (70.3%) ² No (29.7%)

-----If item 4.1 was answered NO, then skip to 4.4. -----

4.2 Does the treatment plan address risk factors for a pressure ulcer?

- ¹ Yes (84.6%) ² No (15.4%)

4.3 Does the person have any of the treatment plans to address the risks for pressure ulcers? (check one):

1 Bedridden and repositioned every 2 hours? ¹ Yes (29.9%)

² No (70.1%)

2 In chair and able to self shift weight every 15 minutes? ¹ Yes (38.2%)

² No (61.8%)

3 In chair and repositioned by staff every 1 hour? ¹ Yes (20.8%)

² No (79.2%)

4 There is no plan (not in chart or treatment book) ¹ Yes (22.9%)

² No (77.1%)

5 Other (84.6%)

4.4 How many pressure ulcers does the person have? _____

-----If 4.4 is 0 (zero), then skip to section 5-----

4.5 How many pressure ulcers have a treatment plan? _____

4.6 When was a pressure ulcer first noticed (If there are multiple pressure ulcers, check all that apply)?

- ¹ Admission (31.9%)
 ² Readmission (8.8%)
 ³ Developed while in facility (62.1%)

4.7 What is the highest stage pressure ulcer they have?

- ¹ Stage 1 (15.0%)
 ² Stage 2 (53.3%)
 ³ Stage 3 (9.4%)
 ⁴ Stage 4 (8.9%)
 ⁵ Unstageable (13.3%)

4.8 How long has the person had the highest stage pressure ulcer? ____ (57.25) _____ days

Part 5. Infectious Illnesses

5.1 Has the person had a urinary tract infection at any time in the last 30 days?

¹ Yes-MRSA (0.3%) ² Yes-VRE (0.2%) ³ Yes-other (11.7%)

⁴ No (87.8%)

5.2 Has the person had a skin or wound infection at any time in the last 30 days?

¹ Yes-MRSA (0.8%) ² Yes-VRE (0.1%) ³ Yes-other (4.8%)

⁴ No (94.3%)

5.3 Has the person had pneumonia at any time in the last 30 days?

¹ Yes-MRSA (0.1%) ² Yes-VRE (0.0%) ³ Yes-other (4.0%)

⁴ No (95.9%)

5.4 Has the person had infectious diarrhea at any time in the last 30 days?

¹ Yes-C. dif (0.6%) ² Yes-other (0.9%) ³ No (98.5%)

Part 6. Pain Assessment

All questions in this section MUST BE ANSWERED.

If the person is cognitively and verbally intact (capable of self reporting) use the 0-10 Numeric Descriptor scale.

If the person is cognitively impaired or verbally impaired (incapable of self-reporting, has expressive aphasia or no interpreter available) use the PAINAD.

6.1 Which pain tool was used by the NACES nurse to assess the person's pain?

¹ 0-10 Numeric Descriptor (74.3%) ² PAINAD (25.7%)

6.2 What is the person's current level of pain? _____

6.3 Is a validated observational pain assessment tool being used by the facility staff to assess the person's pain? (e.g., PAINAD, DS-DAT [Discomfort Scale for Dementia of the Alzheimer's Type], Pain Scale)

¹ Yes (43.6%) ² No (56.4%)

6.4 Is a validated self-report pain assessment tool used by the facility staff to assess the person's pain? (e.g., 0-10 or 0-5 verbal or numeric rating scale, 0-10 pain thermometer; Iowa Pain thermometer; Faces pain scale revised)

¹ Yes (72.5%) ² No (27.5%)

6.5 According to the last 7 days of documentation in the clinical records, what has the person's most severe level of pain been? (Note: *Unable to determine* means that the clinical record does not address the presence or absence of pain. See guidance)

Score _____ Unable to determine

6.5a What tool was used to get the score reported in 6.5? _____

6.6 Is the same assessment tool used by the facility staff every time the person is assessed for pain?

¹ Yes (86.8%) ² No (13.2%)

 **6.7 (Ask the person or the family) Is the person (or family) satisfied with his/her level of pain relief during the last 24 hours?** (Note: NA means that neither the person nor family can tell you.)

¹ Yes (91.7%) ² No (8.3%) ⁸ NA

Questions 6.8 and 6.9 ask the person first. If the person is unable to answer, look in the chart for answers.

 **6.8 (Ask the person) Was pain level assessed after pain medication was administered?** (use drugs guidelines if relevant).

¹ Yes (50.1%) ² No (49.9%) ³ NA (for no pain medication administered)

 **6.9 (Ask the person) What usually helps your pain?**

- ¹ pain medicine (**45.4%**)
- ² repositioning (**16.2%**)
- ³ environment (music, temperature, light, etc). (**1.2%**)
- ⁴ alternative therapy (aroma therapy, massage, etc.) (**0.5%**)
- ⁸ NA for no pain
- ⁹ Other: (**8.4%**)

6.10 Responses for 6.8 and 6.9 were provided by:

- ¹ person (**73.9%**)
- ² chart (**64.5%**)

 **6.11 (Ask the person) How long does it take after you request pain medications to get the medication?**

__ __ **11** __ minutes (if unable to respond write in 0-9 [0 dash 9])

Part 7. Fall Risk Assessment

Questions 7.1a through 7.2 MUST BE ANSWERED. Question 7.3 through 7.6 MUST BE ANSWERED when the answer to 7.2 is YES.

7.1a Is there evidence that the person was assessed for fall risks within 24 hours of admission? (Use most recent event.)

- ¹ Yes (**85.0%**)
- ² No (**15.0%**)

7.1b If this person had an acute change in condition, is there evidence that they have been assessed for fall risks within 14 days of onset of changes?

- ¹ Yes (**6.2%**)
- ² No (**12.0%**)
- ³ No acute change in condition (**81.8%**)

7.1c Is there evidence that the person was assessed for fall risks in the last quarter?

- ¹ Yes (**82.0%**)
- ² No (**18.0%**)

7.1d Did the care plan address risk factors for falls?

- ¹ Yes (**88.4%**)
- ² No (**6.7%**)
- ³ No risk factors for falls identified (**4.9%**)

7.2 Is there evidence that the person fell in the past 30 days while under the care of the nursing facility?

- ¹ Yes (10.2%) ² No (89.8%)

----- If item 7.2 was answered NO, then skip to Part 8 -----

7.3 How many times in the last 30 days has the person fallen while under the care of the nursing facility?

1.257

7.4 If the person fell in the last 30 days, and was not transferred to an ER or hospital, (did not leave the facility), is there documentation that the person was reassessed for fall risks within 24 hours after the fall?

- ¹ Yes (50.8%) ² No (49.2%) ³ NA (fell and was transferred to hospital)

7.5 If the person fell were they injured (regardless of transfer to hospital)?

- ¹ Yes (34.2%) ² No (65.8%)

7.6 If the person was injured, what type of injuries did they sustain? (check all that apply)

- ¹ fractured hip (0.9%)
 ² fractured upper extremity (0.5%)
 ³ fractured pelvis (0.9%)
 ⁴ lacerations (9.9%)
 ⁵ contusions (7.7%)
 ⁶ head injuries (2.7%)
 ⁷ sprains (0.0%)
 ⁸ fractures (specify locations) _____
 ⁹ other (specify) (79.7%)

Part 8. Immunizations

8.1 Is there documentation that the person has ever received polyvalent (including trivalent) Pneumococcal vaccine?

- ¹ Yes proper documentation present (27.7%)
 ² Yes no proper documentation (33.1%)
 ³ No (39.3%)

8.2 Is there evidence that the person is allergic to the Pneumococcal vaccine?

- ¹ Yes (0.7%) ² No (99.3%)

8.3 Is there documentation that the person (or family) was informed of the benefits and risks for the Pneumococcal vaccine?

- ¹ Yes (34.5%) ² No (65.5%)

8.4 Is there documentation that the person (or family) REFUSED the Pneumococcal vaccine shot?

- ¹ Yes (14.8%) ² No (85.2%)

8.5 Is there documentation that Influenza vaccine for the 2009 (September 2009 thru May 2010) Influenza Season was given? Any form of documentation is acceptable.

- ¹ Yes proper documentation (45.3%)
 ² Yes not proper documentation (24.5%)
 ³ No (30.1%)

8.6 Is there evidence that the person is allergic to either eggs or a previous Influenza shot or has had Guillain-Barré syndrome (GBS)?

- ¹ Yes (0.6%) ² No (99.4%)

8.7 Is there documentation that the person (or family) was informed of the benefits and risks for the influenza vaccine?

- ¹ Yes (41.7%) ² No (58.3%)

8.8 Is there documentation that the person (or family) REFUSED the influenza shot for 2009?

- ¹ Yes (11.7%) ² No (88.3%)

Part 9. Advance Care Planning

Questions 9.1 through 9.3 MUST BE ANSWERED. Questions 9.4 and 9.5 MUST BE ANSWERED when the answers to all items from 9.3a-9.3c are NO.

9.1 On first accessing the chart, were you able to find all of the existing advance directives and care limiting order documents within 30 seconds?

- ¹ Yes (91.5%) ² No (8.5%)

9.2 According to facility documents, when did the facility staff first discuss advance care planning with the person or family?

- ¹ Prior to admission (21.0%)
- ² Within 14 days of admission (53.2%)
- ³ After 14 days of admission (17.6%)
- ⁴ Advance Care Planning has not been discussed with the person or family (8.1%)

9.3 After a thorough search of the clinical record, which of the following ACP documents did you find?

9.3a Out of Hospital DNR (OOHDNR) ¹ Yes (50.8%) ² No (49.2%)

9.3b Directive to Physicians ¹ Yes (22.6%) ² No (77.4%)

9.3c Durable Medical Power of Attorney ¹ Yes (25.7%) ² No (74.3%)

---- If all items in 9.3a, 9.3b and 9.3c were answered NO, then skip to Part 10 ----

9.4 Is the care being provided consistent with the instructions in the advance care planning documents?

- ¹ Yes (99.0%) ² No (1.0%)

9.5 Does the Advance Care Plan address artificial nutrition and hydration?

- ¹ Yes (26.1%) ² No (73.9%)

Part 10. Tube Feeding

Question 10.1 MUST BE ANSWERED. Questions 10.2 through 10.6 MUST BE ANSWERED when the answer to Question 10.1 is YES.

10.1 Does the person have a feeding tube?

- ¹ Yes (8.1%) ² No (91.9%)

----- If item 10.1 was answered NO, then skip to Part 11 -----

10.2 Is the person receiving tube feedings? (Includes NG tube, PEG, or other enteral tube providing artificial nutrition and/or hydration)

- ¹ Yes (90.3%) ² No (9.7%)

10.3 Does the person have late-stage dementia (non-verbal, non-ambulatory) or end-stage illness such as metastatic cancer or organ failure or poor performance status (ECOG performance score 3 or greater) related to advanced cancer?

- ¹ Yes (37.1%) ² No (62.9%)

10.4 Is there evidence that the person or person's representative was provided information about the risks and benefits of tube feeding? (not surgical form for placement)

- ¹ Yes (28.6%) ² No (71.4%)

10.5 Have tube feedings been provided for more than 30 days?

- ¹ Yes (84.6%) ² No (15.4%)

10.6 If the person has been receiving tube feedings for more than 30 days, has there been a reassessment of the effectiveness of the tube feeding in the last 30 days? (Reassessment must be based on progress toward specific measurable goals.)

- ¹ Yes (58.8%) ² No (41.2%) ⁸ Not applicable

Part 11. Nutrition

Question 11.1 and Questions 11.3 through 11.7 MUST BE ANSWERED. Question 11.2 MUST BE ANSWERED when the answer to Question 11.1 is YES.

11.1 Is there a comprehensive nutritional assessment completed for the person? (This may be an initial assessment done on admission or an annual if the person has been in the facility for a year. You need to review the most recent.)

- ¹ Yes (92.4%) ² No (7.6%)

----- If item 11.1 was answered NO, then skip to 11.3 -----

11.2 Does the nutritional assessment include estimating the person's nutritional needs?

- ¹ Yes (98.5%) ² No (1.5%)

11.3 Has the person experienced an unintentional 10% weight change in the last six months?

- ¹ weight gain (> than 10%) (3.3%)
 ² weight loss (> than 10%) (6.1%)
 ³ No (90.6%)

11.4 Have risk factors for weight loss been assessed?

- ¹ Yes (75.0%) ² No (25.0%)

11.5 Have risk factors for dehydration been assessed?

- ¹ Yes (77.5%) ² No (22.5%)

11.6 Does the person's care plan address the risks factors for weight loss?

- ¹ Yes (73.9%) ² No (26.1%) ⁸ NA

11.7 Does the person's care plan address the risks factors for dehydration?

- ¹ Yes (74.6%) ² No (25.4%) ⁸ NA

Part 12. Diabetes Mellitus

Question 12.1 MUST BE ANSWERED. Questions 12.2 through 12.4 MUST BE ANSWERED when the answer to Question 12.1 is YES.

12.1 Does the person have diabetes mellitus?

- ¹ Yes (33%) ² No (67%)

-----If item 12.1 was answered NO, then skip to Section 13-----

12.2 Does the person have insulin dependent diabetes mellitus?

- ¹ Yes (62.8%) ² No (37.2%)

12.3 Has the person received the following assessment/test within the past 12 months?

- | | | |
|-----------------------|--|---|
| 1. Foot assessment | <input type="radio"/> ¹ Yes (45.2%) | <input type="radio"/> ² No (54.8%) |
| 2. Eye examination | <input type="radio"/> ¹ Yes (22.7%) | <input type="radio"/> ² No (77.3%) |
| 3. Lipid profile | <input type="radio"/> ¹ Yes (38.2%) | <input type="radio"/> ² No (61.8%) |
| 4. Urine protein test | <input type="radio"/> ¹ Yes (33.8%) | <input type="radio"/> ² No (66.2%) |
| 5. HgB A1C | <input type="radio"/> ¹ Yes (63.2%) | <input type="radio"/> ² No (36.8%) |

12.4 What is the latest Hemoglobin A1C test result? _____%

Part 13. Use of Anti-anxiety Medications

All questions in this section MUST BE ANSWERED. Each of these questions must be answered independently (For examples, see items 13.3 through 13.4 “If there is no valid anxiety diagnosis...” in the Guidance).

13.1 Is there documentation of a diagnosis of generalized anxiety disorder, panic disorder, social anxiety disorder, agoraphobia, PTSD, or anxiety due to a medical illness that is not Dementia?

- ¹ Yes (21.4%) ² No (78.6%)

13.2 Is there documentation of one or more anxiety symptoms characteristic of the disorder identified in 13.1? (If item 13.1 is answered NO, then answer 13.2 Not Applicable. If 13.1 is answered YES, then refer to the symptom list in the guidance.)

- ¹ Yes (16.1%) ² No (10.2%) ⁸ Not applicable (73.7%)

13.3 Is there documentation of ongoing anxiety symptom assessment (at least every 2 weeks) for the stated, measurable therapeutic goals of anti-anxiety therapy? (Answer N/A if the person has no anxiety symptoms and is not taking medications)

- ¹ Yes (45.4%) ² No (16.0%) ⁸ NA (70.7%)

13.4 What type of treatment is the person receiving for anxiety? (check all that apply).

- ¹ Psychotherapy (7.0%)
 ² Dietary changes (0.0%)
 ³ Relaxation therapy (0.4%)
 ⁴ Medications (29.5%)
 ⁵ Other (1.2%)
 ⁶ None (69%)

Part 14. Depression

Question 14.1 MUST BE ANSWERED. Questions 14.2 and 14.4 through 14.6 MUST BE ANSWERED when the answer to Question 14.1 is YES. Question 14.3 MUST BE ANSWERED when the answer to Question 14.2 is YES.

14.1 Is there documentation of a diagnosis of clinical depression?

- ¹ Yes (38.1%) ² No (61.9%)

-----If 14.1 is NO, then skip to Section 15-----

14.2 Is there an identifiable cause(s) for this person's depression?

- ¹ Yes (60.3%) ² No (39.7%) ⁸ NA

-----If 14.2 is NO, then skip to 14.4-----

14.3 What identifiable causes are documented?

- ¹ Grief and loss (25.7%)
 ² Medical illnesses (81.2%)
 ³ Anxiety disorder (30.1%)
 ⁴ Drugs that cause symptoms of depression (1.0%)
 ⁵ Other __ (12.2%)

14.4 What type of treatment is the person receiving for depression? (check all that apply)

- ¹ Individual Psychotherapy (23.7%)
 ² Group Psychotherapy (0.2%)
 ³ Medications (91.4%)
 ⁴ Other (1.3%)
 ⁵ None (5.6%)

14.5 Is there documentation of ongoing depression symptom assessment (at least every 2 weeks) for the stated, measurable therapeutic goals of depression therapy? (Answer NA if the person has no depression symptoms and not taking medications)

- ¹ Yes (37.2%) ² No (62.8%) ⁸ NA

14.6 Does the chart indicate that the person has responded to treatment?

- ¹ Yes (48.2%) ² No (51.8%) ⁸ NA (no treatment)

Part 15. Use of Hypnotic Medications

Questions 15.1 through 15.5 MUST BE ANSWERED. Questions 15.6 and 15.7 MUST BE ANSWERED when the answer to Question 15.5 is YES.

15.1 Has the person complained of sleep problems within the last 14 days? (see guidance)

- ¹ Yes (15.0%) ² No (85.0%)

 **15.2 (Ask the person) What usually causes you to miss sleep? (check all that apply) (see guidance)**

- ¹ uncomfortable bed (2.3%)
- ² too much noise (7.6%)
- ³ interruptions (4.4%)
- ⁴ worry (7.2%)
- ⁵ sad (4.0%)
- ⁶ diet (0.1%)
- ⁷ medicine (1.0%)
- ⁸ pain (9.9%)
- ⁹ other (10.3%)
- ¹⁰ NA (72.7%)

15.3 Is there evidence that the person has been evaluated for sleep hygiene including all of the following: diet history, daytime habits, sleeping habits, and sleeping environment?

- ¹ Yes (2.4%) ² No (2.7%)

15.4 Is there evidence that alternative interventions were attempted before sleep medications were given?

- ¹ Yes (11.8%) ² No (88.2%) ⁸ NA (no sleep hygiene problems)

15.5 Does the MAR show an active prescription for sleep problems in last 14 days?

- ¹ Yes (19.5%) ² No (80.5%)

-----If 15.5 is NO, skip to Section 16-----

15.6 Did the person continue to have sleep problems after receiving sleep medications?

- ¹ Yes (11.6%) ² No (88.4%)

15.7 If 15.6 is yes, has the person been reassessed for sleep difficulties?

- ¹ Yes (12.2%) ² No (87.8%) ³ NA

Part 16. Restraints (The focus of this section is on any type of restraint; physical, chemical, or personal. Please answer questions with respect to all types of restraints. Physical restraints are defined as any manual method or physical or mechanical device, material, or equipment attached or adjacent to the person's body that the person cannot remove easily which restricts freedom of movement or normal access to one's body. MDS 2.0 Chapter 3, Section P 4 Physical Restraints pg. 3.198)

16.1 How many times has the person been restrained in the last 30 days? _____
(see guidance)

---- If item 16.1 is answered 0, skip to Part 17 ----

16.2 What type(s) of restraints were used? (mark all that apply)

- ¹ Mechanical (**97.7%**)
 - ^{1a} Full bed rails (**45.7%**)
 - ^{1b} Other types of bed rails (**47.7%**)
 - ^{1c} Trunk restraints (**3.5%**)
 - ^{1d} Limb restraints (**0.2%**)
 - ^{1e} Chair prevents rising (**10.1%**)
- ² Personal (**1.6%**)
- ³ Chemical (**10.5%**)
 - ^{3a} Typical antipsychotics (**6.6%**)
 - ^{3b} Atypical antipsychotics (**0.8%**)
 - ^{3c} Anxiolytics (**1.4%**)
 - ^{3d} Sedatives/hypnotics (**4.4%**)
 - ^{3e} Others (**0.2%**)
- ⁸ NA (**0.1%**)

16.3 Why were restraints used? (mark all that apply)

- ¹ To control disruptive behavior (**1.8%**)
- ² To control physically aggressive behavior (**1.5%**)
- ³ To control person from wandering (**6.7%**)
- ⁴ To control the person from getting up at night (**13.1%**)
- ⁵ Other (**67.4%**)
- ⁶ NACES evaluator unable to determine from record why restraint was used. (**21.0%**)

16.4 Did the person's family or guardian request the use of restraints?

- ¹ Yes (**25.1%**)
- ² No (**74.9%**)
- ⁸ NA

16.5 What alternatives were tried to prevent the use of restraints? (mark all that apply)

- ¹ Verbal de-escalation or redirection (4.2%)
- ² Interpersonal physical separation (0.2%)
- ³ Environmental remediation (5.6%)
- ⁴ Other (5.6%)
- ⁵ None (89.2%)

Part 17. Quality of Life / Consumer Satisfaction

Questions 17.1 and 17.2 must be answered. Questions 17.3 through 17.17, Questions 17.19 through 17.23, and Questions 17.25 through 17.27 must be answered if Question 17.1 is PERSON or FAMILY MEMBER OR GUARDIAN. Question 17.18 must be answered if 17.17 = YES or NO ANSWER. Question 17.24 must be answered if Question 17.23 = YES.

If the person is unable to answer, then only a family member or guardian may answer items.

17.1 Who is responding to this survey?

- ¹ Person (69.4%) ² Family member or guardian (9.7%)
- ³ Neither (20.9%)

17.2 Was a translator used for this survey?

- ¹ Yes (2.3%) ² No (97.7%)

-- If 17.1 was answered, "Family member or guardian" then SKIP to 17. 26--

----- If item 17.1 was answered, "Neither" then STOP -----

 **17.3 Can you find a place to be alone when you wish?**

- ¹ Always (54.7%) ² Sometimes (25.3%) ³ Rarely (8.6%) ⁴ Never (11.3%) ⁵ No answer

 **17.4 Can you make a private phone call?**

- ¹ Always (60.5%) ² Sometimes (18.5%) ³ Rarely (6.9%) ⁴ Never (14.1%)
- ⁵ No answer

 **17.5 When you have a visitor, can you find a place to visit in private?**

- ¹ Always (59.7%) ² Sometimes (25.5%) ³ Rarely (5.6%) ⁴ Never (9.2%)
 ⁵ No answer

 **17.6 Can you be together in private with another person (other than your roommate)?**

- ¹ Always (48.2%) ² Sometimes (23.9%) ³ Rarely (11.5%) ⁴ Never (16.4%)
 ⁵ No answer

 **17.7 Do you participate in religious activities here?**

- ¹ Always (32.6%) ² Sometimes (27.1%) ³ Rarely (11.2%) ⁴ Never (29.1%)
 ⁵ No answer

 **17.8 Do the religious observances here have personal meaning for you?**

- ¹ Always (48.7%) ² Sometimes (22.0%) ³ Rarely (8.8%) ⁴ Never (20.5%)
 ⁵ No answer

 **17.9 Do you enjoy the organized activities here at the nursing home?**

- ¹ Always (31.2%) ² Sometimes (31.3%) ³ Rarely (15.4%) ⁴ Never (22.2%)
 ⁵ No answer

 **17.10 Outside of religious activities, do you have enjoyable things to do at the nursing home during the weekends?**

- ¹ Always (15.4%) ² Sometimes (33.8%) ³ Rarely (22.4%) ⁴ Never (28.4%)
 ⁵ No answer

 **17.11 Do you like the food here?**

- ¹ Always (36.7%) ² Sometimes (48.7%) ³ Rarely (9.0%) ⁴ Never (5.7%) ⁵ No answer

 **17.12 Do you enjoy mealtimes here?**

- ¹ Always (51.8%) ² Sometimes (37.6%) ³ Rarely (6.7%) ⁴ Never (3.9%) ⁵ No answer

 **17.13 Can you get your favorite foods here?**

- ¹ Always (21.2%) ² Sometimes (49.3%) ³ Rarely (18.6%) ⁴ Never (10.9%) ⁵ No answer

 **17.14 Can you get snacks and drinks when you want them?**

- ¹ Always (46.9%) ² Sometimes (38.1%) ³ Rarely (9.1%) ⁴ Never (5.9%) ⁵ No answer

 **17.15 Do you feel that your possessions are safe at this nursing home?**

- ¹ Always (76.8%) ² Sometimes (15.2%) ³ Rarely (3.5%) ⁴ Never (4.5%) ⁵ No answer

 **17.16 Have your clothes gotten lost or damaged in the laundry in the last month?**

- ¹ Always (5.4%) ² Sometimes (20.5%) ³ Rarely (12.6%) ⁴ Never (61.5%) ⁵ No answer

 **17.17 Do you feel safe and secure?**

- ¹ Always (92.5%) ² Sometimes (5.9%) ³ Rarely (0.5%) ⁴ Never (1.1%)
 ⁵ No answer

-----If 17.17 equals 1 or 5, skip to 17.19-----

 **17.18 Do you feel unsafe and insecure because of? (mark all that apply)**

- ¹ Direct care staff (20.5%)
 ² Non-care staff (7.1%)
 ³ Other persons (44.6%)
 ⁴ Environmental concerns (8.9%)
 ⁵ Other (35.7%)

 **17.19 Do you ever have concerns that the facility does not address?**

- ¹ Yes (12.7%) ² No (60.6%)

 **17.20 In the last month, have you had a concern that you did not express because you were afraid of retaliation?**

- ¹ Yes (4.4%) ² No (95.6%)

 **17.21 Have you heard of the Long-term Care Ombudsman Program?**

- ¹ Yes (14.0%) ² No (86.0%)

 **17.22 Do you know how to contact an Ombudsman?**

- ¹ Yes (7.8%) ² No (92.2%)

 **17.23 Have you used the services of an Ombudsman in the last 12 months?**

- ¹ Yes (1.9%) ² No (98.1%)

----- If item 17.23 was answered NO, then skip to 17.25 -----

 **17.24 How helpful has your Ombudsman been to you?**

- ¹ Not helpful (21.4%) ² Neutral (10.7%) ³ Very helpful (67.9%)

 **17.25 (Only ask if the person is a hospice patient) Did your facility staff offer you a variety of hospice agency providers to choose from?**

- ¹ Yes (78.3%) ² No (21.7%) ³ Don't know

 **17.26 Overall, how satisfied are you with your (your family member's) experience in this nursing facility?**

- ¹ Very dissatisfied (1.6%)
 ² Dissatisfied (2.2%)
 ³ Somewhat dissatisfied (3.6%)
 ⁴ Neither (2.7%)
 ⁵ Somewhat satisfied (11.0%)
 ⁶ Satisfied (55.4%)
 ⁷ Very satisfied (23.4%)
 ⁸ NA

 **17.27 Overall, how satisfied are you (your family member's) with your health care services?**

- ¹ Very dissatisfied (1.7%)
- ² Dissatisfied (2.1%)
- ³ Somewhat dissatisfied (3.7%)
- ⁴ Neither (2.6%)
- ⁵ Somewhat satisfied (10.6%)
- ⁶ Satisfied (56.1%)
- ⁷ Very satisfied (23.2%)
- ⁸ NA

I certify by my signature below that the *DADSID* number of the person has been double-checked for accuracy, and that the information in this document is an accurate assessment of the person.

QR Nurse Signature _____ **Date** _____

Appendix C

Glossary

Glossary

Term	Definition
Capillary	The smallest blood vessels, located within the tissues of the body, that form networks responsible for the interchange of oxygen, carbon dioxide and metabolic waste products between blood and tissue cells.
Central Nervous System	The part of the nervous system, consisting of the brain and spinal cord, to which sensory impulses are transmitted and from which motor impulses pass out. The central nervous system supervises and coordinates the activity of the entire nervous system
Dementia	The development of multiple cognitive deficits (as memory impairment, aphasia, and inability to plan and initiate complex behavior), that may be progressive (such as in Alzheimer's disease) or static (as in a brain injury).
Neuropathic Parkinsonism	Refers to diseases or disorders of the nervous system. Any of several neurological conditions that resemble Parkinson's disease and that result from a deficiency or blockage of dopamine caused by degenerative disease, drugs, or toxins
Perfusion	The movement of blood through the blood vessels to the body's organs or other tissues.
Polypharmacy	The practice of administering multiple medications, especially concurrently for the treatment of the same disease
Psychosis	A serious mental disorder (such as schizophrenia) characterized by defective or lost contact with reality often with hallucinations or delusions.
Shear	An applied force that leads to an opposite but parallel sliding motion of the planes of an object, causing tissues and blood vessels to move in such a way that blood flow may be interrupted.
Subcutaneous	Tissue situated or lying under the skin.