2005 Long Term Care Quality Review

A Statewide Assessment of Quality of Care, Quality of Life, and Consumer Satisfaction in Texas Medicaid Nursing Facilities

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1. Executive Summary

NOTE: All revisions made in July 2006 appear in red.

The Long Term Care Quality Review (LTCQR) is a statewide process used by the Department of Aging and Disability Services (DADS) to benchmark the quality of Medicaid-contracted nursing home services.* It also serves to identify opportunities for improvement, trend quality improvement, and to inform the evaluation of interventions meant to improve the quality of resident care.

The previous LTCQR report was submitted in January 2005 as required by the 2004-2005 General Appropriations Act (Article II, Department of Human Services, Rider 25, HB 1,78th Legislature, Regular Session, 2003). Another report is required in January 2007 by the 2006-2007 General Appropriations Act (Article II, Department of Aging and Disability Services, Rider 17, SB 1, 79th Legislature, Regular Session, 2005.) This 2006 report is provided because the LTCQR is now conducted yearly in order to identify new opportunities for technical assistance as well as to assess trends in changing LTC care processes and resident outcomes that inform the department regarding what effect, if any, its quality outreach efforts yield.

The LTCQR is based on a process of on-site structured resident assessment (Appendix A) conducted in Texas nursing facilities by contractors who have Long Term Care (LTC) clinical experience. The purpose of these assessments is to determine whether the right care is being provided in the right way at the right time in order to achieve the best possible resident outcomes. The care of 2,005 randomly selected nursing facility residents was assessed for this report in order to determine whether:

- Residents were receiving needed continence promotion interventions
- Indwelling bladder catheters were used appropriately
- Physical restraints were used only when unavoidable
- Recommended fall risk management practices were used appropriately
- Residents were being properly assessed for pain
- The management of pain was effective
- Immunizations were used appropriately to prevent infectious diseases

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* Throughout this report, the term LTC is used to refer to Medicaid-contracted nursing facilities. These homes make up ~97% of all Texas nursing facilities.

- Advance care planning was used appropriately
- Certain classes of psychoactive medications were used appropriately
- Medication regimens afforded optimal patient safety
- Consumers were satisfied with various aspects of nursing facility care

1.1. Approach to Assessing the Quality of Texas LTC

LTC facilities that provide services to Medicare or Medicaid-funded residents are required by federal law to submit a uniform functional assessment on each resident each quarter. This assessment is the Minimum Data Set Resident Assessment Instrument (MDS-RAI or MDS). Data from the MDS are used for administrative purposes as well as to determine the prevalence and incidence of certain clinical conditions (e.g., falls, fractures, behavioral symptoms, etc.) The MDS is also used to monitor the use of certain interventions such as physical restraints, continence promotion plans, and the use of certain classes of medications. Thus, the MDS serves as a tool for determining *what is going on* in Texas LTC facilities.

The LTCQR examines the care of a statewide LTC resident sample in order to ascertain whether *what is going on* is clinically appropriate or at least unavoidable. The standards for appropriateness of care and clinically unavoidable conditions are determined from systematic reviews of the clinical research literature rather than from regulatory requirements or the clinical experiences of individual reviewers. Thus, where the MDS provides the state with an on-going record that shows *what is going on*, the LTCQR provides an annual snapshot that explains *why*.

1.2. Key Findings

1.2.1. Appropriateness of Physical Restraint Use

- Texas, among the four states with the highest prevalence of physical restraints use in 2002, has decreased this practice more than any other state. The observed proportion of residents in physical restraints decreased from 19.5% in 2002 to 10.7% in 2003 to 8.8% in 2004 and to 7.6% in 2005. The corresponding Center for Health Systems Research (CHRSA) quality indicator (QI) has shown a similar decline revealing a statewide prevalence of 6.6% in April 2005.

1.2.2. Appropriateness of Continence Promotion

- In 2005, 16% of residents who could have benefited from continence promotion strategies actually received them; in 2004, 19% did. This was not a statistically significant change.[†]

- A large proportion (48%) of residents were found to be wet at the time of assessment. Thus, while a larger proportion of residents had continence promotion plans, those plans were either not implemented or inappropriate in design for the needs of the individuals receiving such interventions.

- The most commonly used continence promotion intervention, every-two-hour voiding, does not appear to be effective. Among residents who experienced incontinence, those receiving intervention were half as likely to be found dry as were those not receiving intervention.

1.2.3. Appropriateness of Indwelling Bladder Catheter Use

- The LTCQR process audits the use of indwelling bladder catheters (a conduit placed in the urinary bladder in order to provide continuous urinary drainage), in part, to guard against the misuse of catheters to manage uncomplicated urinary incontinence. There has been no change in the prevalence of catheter use to suggest that such misuse occurs commonly.

- Since 2002, there has been a modest but significant improvement in the documented thoroughness of resident evaluation for the long-term use of indwelling bladder catheters.

1.2.4. Appropriateness of Fall Risk Management Practices

- Although all LTC residents need assessment for fall risks in order for caregivers to implement resident-specific risk management interventions, only 60% received appropriate assessment in 2004. In 2005, there was a modest but significant improvement to 65%.

- There was also a modest but significant improvement in appropriate post-fall reevaluation. In 2004, only 34% had appropriate reevaluation whereas 50% did in 2005.

1.2.5. Appropriateness of Pain Assessment and Pain Control

[†] The criterion for statistical significance used in this document is $p < .05$ unless specifically stated.

- The prevalence of moderate-to-severe pain among residents during the most recent seven days was 12.3%. As in 2004, this was significantly higher than the corresponding statewide figure reported by the Centers for Medicare & Medicaid Services (CMS).[‡]

- There was modest but significant improvement in the use of timely and valid assessment for pain symptoms in residents who had little or no cognitive impairment. In 2004, only 53% of these residents had weekly assessment for pain using a validated pain assessment tool whereas in 2005, 64% did.[§]

- In 2004, only 14.4% of residents who had severe cognitive impairment had pain assessment using an appropriate, validated observational pain assessment tool; in 2005, 27% did.[**] This was a modest but significant improvement.

- In 2005, a significantly greater proportion of residents with severe cognitive impairment had weekly pain assessment. In 2004, only 41% had been assessed for pain in the preceding week whereas in 2005, 53% had been.

- Each of the preceding items represents an important improvement in the process of care; however, the proportion of residents reporting satisfaction with pain control in the preceding 24 hours did not change significantly from 2004 to 2005.

1.2.6. Appropriateness of Immunization Practices

- In 2004, the rates for reported and documented influenza vaccination for residents during the 2003-2004 influenza season were 59% and 40% respectively. Although the 2005 LTCQR resident sample showed corresponding rates of 62% and 43% for the 2004-2005 influenza season, the differences are not statistically significant. The shortage of influenza vaccine during the 2004-2005 season may be partly responsible for the lack of improvement.

[‡] The Texas and national averages for the prevalence of moderate-to-severe pain reported by the Centers for Medicare & Medicaid Services (http://www.medicare.gov/NHCompare accessed August 2, 2005) was 6% in the summer of 2005.

[§] Validated pain assessment tools refer to pain scales that have been tested in samples of nursing home residents or patients similar to nursing home residents. Examples of these pain scales include the Wong-Baker Faces and pain thermometer scales.

[**] Validated observational tools refer to behavioral assessment instruments such as the Pain Assessment in Advanced Dementia (PAINAD) and Discomfort Scale for Dementia of the Alzheimer's Type (DS-DAT) scales that have been tested in study samples representative of nursing home residents.

- In 2004, LTC staff vaccination data collected by the QM Program's nurse quality consultants provided an estimate of 38% for documented staff influenza vaccinations for the 2003-2004 influenza season. For the 2004-2005 season, this estimate was 34%. This vaccination rate is far below the national goal for the year 2010 (90%) needed to protect both the workers and their residents.

- There has been significant improvement in the reported and documented rates of resident vaccination against pneumococcal disease. The 2005 and 2004 vaccination rates were 40% and 25% respectively.

1.2.7. Appropriateness of Advance Care Planning (ACP)

- There were documented ACP discussions in 91% of resident records. This is the same rate seen in the 2004 LTCQR.

- There was modest but significant improvement in the proportion of residents who had subsequent ACP discussions. In 2004, 25% of LTC residents had had more than one documented advance care planning discussion, and the rate rose to 32% in 2005.

- In 2005, a significantly smaller proportion of resident clinical records (74% vs. 82%) had one or more ACP documents. These documents included durable medical power of attorney, directives to physicians, and orders to limit certain medical interventions.

- Advance care plans are readily accessible. The proportion of records accessible within 30 seconds increased from 94% in 2004 to 98% in 2005. While a modest improvement, the change is significant.

- Care is highly consistent with residents' advance care plans. Among 99% of residents who had ACP documents, care appeared to be consistent with the wishes expressed in those documents.

1.2.8. Appropriateness of Psychoactive Medication Use

- The prevalence of antipsychotic medication use in Texas LTC, for several years higher than the national average, has not changed significantly.

- In 2005, 43% of all LTC antipsychotic medications were administered in the absence of a CMS-approved (OBRA-87) clinical indication. There has been no improvement in adherence to OBRA-87 guidelines for antipsychotic medication use.

- The vast majority (90%) of antipsychotic medications given to older LTC residents are newer generation agents for which the Food and Drug Administration (FDA) has issued a public health advisory concerning an increased risk of death.

- Since 2004, there has been no improvement in prescribing practices for anti-anxiety medications. While 28% of residents receive such medications, only 13% of residents taking these medications have evidence of an anxiety disorder, and only 3% receive rigorous monitoring of treatment effects.

- Since 2004, there has been a modest but significant increase in the prevalence of medications given for sleep. Sleep hygiene measures are rarely used (less than 15% of residents receiving sedative/hypnotic medications). Among residents given these medications, there has been a decline in the use of resident monitoring to ascertain the effects of treatment.

1.2.9. Prescribing Practices and Patient Safety

- In 2005, 68.9% of Texas LTC residents were receiving nine or more medications. The proportion of residents 65 years and older receiving nine or more medications has increased steadily each year since 2000.

- In 2005, the typical nursing facility resident took 11 medications together containing 12 active ingredients. Over the last five years, there has been a parallel increase in the number of medications and pharmacologically active ingredients given to Texas LTC residents.[††]

- Since 2004, there has been no increase in the number of residents given at least one of 48 medications (Beers List medications) known to be tolerated poorly by older persons. [‡‡]

- From 2004 to 2005, there was a significant decrease in the proportion of elderly residents treated with propoxyphene, an analgesic with a poor safety profile in older persons. This represents an important improvement in the quality of LTC prescribing practices.

- As in 2004, ~4% of residents in the 2005 LTCQR were taking a drug regimen that included one or more of the top ten most hazardous drug interactions

[††] While most medications contain only one active ingredient, a number of medications contain more than one. Determining the number of active ingredients a resident is receiving is a more accurate way of assessing the risk of problems associated with polypharmacy.

[‡‡] The Beers medication list consists of drugs that were determined by a panel of geriatricians and pharmacologists to be generally unsafe for use in older persons in nursing homes.

without another medication that could have mitigated the hazardous interaction.

1.2.10. Consumer Satisfaction

- All survey items show that consumers are somewhat satisfied with the services provided. From 2003 to 2004, all but two items showed a decrease in statewide consumer satisfaction scores; overall satisfaction declined 12% during this period. In 2005, some of this decline was reversed with an improvement in overall satisfaction to a level only 2% below the 2003 level of overall satisfaction. The only item in which consumer satisfaction declined was the item for complying with end-of-life wishes.

- The only aspects of consumer satisfaction that have shown continuous improvement from 2003 to 2005 are related to the reduced use of physical restraints and avoidance of chemical restraints. The latter belies the actual appropriateness of psychoactive medication use in nursing facilities.

1.2.11. Minimum Data Set (MDS) and Quality Indicators

- The LTCQR demonstrates that the MDS quality indicator (QI) 14 accurately depicts the true prevalence of tube feeding.

- Changes in statewide values for the quality indicators concerning restraint use and toileting for incontinence parallel the improvement observed in the LTCQR.

- The statewide value for quality indicator concerning polypharmacy shows the same trend of increase observed in the LTCQR.

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2. Introduction

2.1. Purpose

The Long Term Care Quality Review process, initially begun in the year 2000 as directed by the 2000-2001 General Appropriations Act (Article II, Department of Human Services, Rider 32, HB 1, 76th Legislature, Regular Session, 1999) is a statewide assessment of the quality of resident services and consumer satisfaction in Medicaid-contracted nursing facilities. The LTCQR began in 2000 as an effort to stimulate quality improvement as well as to compare first-hand observations to facility observations reported in the federally mandated Minimum Data Set (MDS) Resident Assessment Instrument (RAI).

Prior cycles of the LTCQR process have shown that the quality review process itself, in the absence of targeted interventions, does not lead to improvement. They have also established that some important MDS data elements that represent simple observations are very reliable (e.g., reporting of restraints and catheters) whereas others that require interpretation or complex observation are less reliable (e.g., reporting of specific medication types and staging pressure sores). Correspondingly, the reliability of the Center for Health Systems Research and Analysis (CHSRA) Quality Indicators (QIs), which are based on MDS data elements (Zimmerman, 1999), also varies. Moreover, even QIs that are reliable may not always serve as good measures of quality because they may not distinguish instances of poor outcomes that are avoidable from instances that are not.

The purpose of the current LTCQR is to measure the quality of certain services, to identify specific opportunities for improvement, and to measure whether the department's technical assistance interventions are yielding actual improvement in those services.

2.2. Quality Improvement Priorities

The 2005 LTCQR addresses the following statewide quality improvement priorities:

- To improve the use of continence promotion interventions
- To improve the evaluation of residents in whom indwelling bladder catheters are used
- To improve the assessment of each resident's risk of falling
- To improve the assessment and management of pain symptoms

- The improve vaccination rates among LTC residents
- To promote the use of advance care plans
- To discourage the use of artificial nutrition and hydration in situations where clinical science shows that the intervention yields no benefit
- To discourage the inappropriate use of certain psychoactive medications
- To improve the safety of residents' medication regimens through the elimination of unnecessary medications and the avoidance of medications that have poor safety profiles in older persons

2.3. S.B. 1839 (Long-Term Care Facility Improvement Act) Quality Outreach

The Long-Term Care Facility Improvement Act, 77th Legislature, Regular Session, 2001, directed the department to create programs of technical assistance and joint training for providers of LTC services. The technical assistance program is called the Quality Monitoring (QM) program. It was begun in 2002 based on the premise that the quality of services could be improved through the consistent use of evidence-based best practices. The joint training (JT) program is conducted by the department's Educational Services section and coordinates with the QM program to address statewide quality improvement issues including the ten most commonly cited regulatory issues in nursing facility care. In both efforts, the purpose is to hasten the diffusion of research-based knowledge into daily LTC practice.

The QM program's staff consists of nurse, dietitian, and pharmacist quality consultants who provide the following:

1. QM Visits – On-site technical assistance visits that are based on firsthand assessments (clinical audits) of resident care
2. Rapid Response Team (RRT) Visits – RRT visits that are typically multidisciplinary and either requested by providers themselves or assigned according to a risk score determined using the program's Early Warning System risk assessment
3. In-Service Training – On-site education for facility staff, residents and families
4. Educational Resources – Peer-reviewed best practice frameworks based on systematic reviews of the relevant research literature and made available online (see QMWeb at http://mqa.dads.state.tx.us/QMWeb)

5. Peer-To-Peer Education Workshops – PTPE in which QM program staff bring a small number of facilities together to discuss quality improvement challenges and practical approaches to overcome them

6. Academic Detailing – Pharmacist consultant visits to facility Medical Directors through which the program disseminates information to hasten the adoption of improvements in resident evaluation and treatment

The QM program's staff offers technical assistance for each of the quality issues shown in Table 2.1.

Table 2.1 QM Technical Assistance Topics

Discipline	Topic	From - To
Nursing	Reducing Restraint Use	2002 - present
	Promoting Bladder and Bowel Continence	2002 - present
	Appropriate Use of Indwelling Bladder Catheters	2002 - present
	Managing Fall Risks	2004 - present
	Improving Pain Assessment	2004 - present
	Increasing Influenza Vaccination Rates	2004 - present
	Increasing Pneumococcal Vaccination Rates	2004 - present
	Improving Advance Care Planning	2005 - present
Pharmacy	Improving Pain Management	2004 - present
	Appropriate Use of Antipsychotic Medications	2002 - present
	Appropriate Use of Anti-anxiety Medications	2004 - present
	Appropriate Use of Sedatives and Hypnotics	2004 - present
	Reducing Unnecessary Polypharmacy	2004 - present
Nutrition	Addressing Unintended Weight Loss	2002 - present
	Preventing Dehydration	2002 - present
	Appropriate Use of Artificial Nutrition and Hydration	2005 - present

In QM and RRT visits, QM quality consultants use an explicit, structured, clinical audit process to examine the care of a sample of residents affected by these clinical issues. The audit process compares actual resident care to evidence-based standards that define best practice. For example, the appropriateness of resident assessment, care planning, and care regarding restraint use is addressed by examining the care of residents on whom restraints are used. The specific quality issues addressed during a QM or RRT visit are determined from the quality indicator system and the consultants own observations so that each facility receives assistance in those areas where it most needs help in order to move toward statewide improvement targets.

In addition to on-site technical assistance, the department also provides evidence-based resources drawn from systematic clinical literature reviews. Systematic clinical

literature reviews are contracted to research partners such as academic institutions. These reviews are then used to create best practice frameworks that serve as quality improvement resources for both the quality consultants and LTC facility staff.

The department also provides continuing professional education through thematic symposia and conferences sponsored by its Medical Quality Assurance (MQA) function or in collaboration with other entities. QMWeb also includes streaming media presentations derived from MQA symposium events and collaborative conferences.

2.4. The 2005 LTCQR Instrument

The LTCQR resident assessment instrument used in 2005 appears in Appendix A. The instrument may be revised each year, as necessary, to study some quality issues in more detail or to address new issues as prior statewide improvement goals are met. The 2005 instrument is similar to the one used in the 2004 LTCQR (Cortés and Chou, 2004) except for the elimination of certain items related to restraint use and the addition of new items addressing the use of artificial nutrition and hydration (tube feeding).

2.5. Methods

2.5.1. Selection of the 2005 LTCQR Resident Sample

The LTCQR process is based on a proportional sample comprised of 2,005 residents from 1,023 Medicaid-certified nursing facilities. The sample was drawn from among residents who had an MDS assessment in the period September 1, 2005 to December 31, 2005. The proportional sampling strategy simplifies certain logistical issues, and prior LTCQR cycles have demonstrated that this approach consistently yields a sample of residents representative of the Texas Medicaid nursing facility population (Cortés, et al., 2002-2004).

2.5.2. Data Collection and Compilation

The LTCQR process uses contracted nurses in order to ensure a dispassionate assessment of resident care. Thirteen registered nurses, contracted through the NACES-Plus Foundation, conducted the 2005 LTCQR resident assessments. The average age of these nurse reviewers was 55, and they had an average of 29 years of clinical experience including an average 10 years in geriatrics. These nurse reviewers performed the resident assessments, including obtaining resident or family responses to the consumer satisfaction survey and obtained copies of certain clinical records including the most recent seven days of medication administration records (MAR) and behavioral monitoring records for those residents receiving certain psychoactive medications.

Five practicing registered pharmacists contracted through the Litaker Group, LLC performed the review of medication administration records and corresponding pharmacy data entry. The average age of these contractors was 45, and they had an average 20 years of clinical experience. They electronically recorded each medication ordered and administered for analysis. Unlike previous LTCQR cycles, the contractor also reconciled medication administration records against consolidated physician orders to ascertain that all medications that had been ordered were represented in the medication administration records.

2.5.3. Data Analyses

After five years of LTCQR and three years of technical assistance, it is clear that the extent of improvement derived from any quality improvement intervention depends on the type of the intervention, its duration, its effectiveness, the resources devoted to it, and the ability of providers to make the changes in resident care that the intervention proposes. The quantitative analyses in this report focus on benchmark measurements of quality and changes in those measurements that define trends or patterns. Thus, the report focuses on identifying statistically significant changes rather than on determining whether observed changes are the result of specific interventions.

In the absence of large-scale changes in state or federal policy, regulation or enforcement, or reimbursement methodology, that would affect many aspects of quality of care, it is reasonable to argue that significant changes in particular care practices probably reflect the impact of relevant quality improvement interventions that have been undertaken. Such arguments are even more convincing when improvement is seen only among those quality issues for which intensive interventions are undertaken.

Concerning specific LTC quality issues for which only DADS has undertaken quality outreach interventions, it can be argued that quality improvement reflects the impact of those efforts. When DADS undertakes a statewide quality improvement intervention for a particular LTC issue and entities other than DADS undertake additional interventions in a sub-group of facilities, some portion of the improvement in the sub-group may be attributable to non-DADS efforts. The relative impacts of these interventions can be estimated reliably when the numbers of facilities and residents receiving various interventions is known (Cortés, 2004).

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3. LTCQR Findings

Unless otherwise noted, the criteria for appropriateness of care as well as the definitions of quality measures used in prior LTCQR reports (Cortés et al., 2000-2004) apply in this report.

3.1. Physical Restraints

3.1.1. Overview

In 2002, Texas nursing facilities had a restraint use prevalence of 19.5%, ranking Texas among the four states with the highest levels of restraint use. The technical assistance made possible by S.B. 1839, 77th Legislature, Regular Session, 2001, created the opportunity to improve care by eliminating the unnecessary use of restraints. While the practice of using restraints in nursing homes has decreased nationwide, no state has demonstrated a larger absolute improvement than Texas. The purpose of continuing to provide technical assistance in restraint reduction is to reach and maintain a statewide prevalence of restraint use no more than 5%.

Previous LTCQR reports have confirmed two key findings from clinical research. The first is that the vast majority of inappropriate restraint use in nursing facilities is for perceived risk of falling, and the second is that medically unavoidable prevalence of restraint use is 2% or less. Therefore, nine LTCQR items that addressed restraint use in prior LTCQR cycles were reduced to three. The quality measures for restraint use were modified accordingly.

3.1.2. Related Quality Outreach Activities

From April 2004 through April 2005, restraint use was addressed during 900 QM visits conducted in 569 distinct facilities. The QM consultants audited the care of 4,262 residents in whom restraints were being used, and they provided technical assistance on restraint elimination. The QM program also held eight PTPE workshops that addressed restraint reduction and elimination; staff from 66 facilities attended. Additionally, the JT program delivered 14 classes on restraint reduction to 150 provider attendees.

3.1.3. Quality Improvement Trend

Because the misuse of restraints stems from actual or perceived risk of falling, it is important to understand that using physical restraints to manage the risk of falls is associated with little or no decrease in falls and a clear increase in the severity of injuries associated with falls. Prior LTCQR cycles have also shown that the prevalence of medically unavoidable restraints is less than 2% whereas the actual prevalence of restraint use has been up to ten times higher in Texas nursing facilities.

The 2005 LTCQR focused on a smaller set of quality measures for restraint use in order to continue to track the impact of the QM technical assistance program on restraint reduction. Table 3.3 reports the three quality measures for restraint use that have been examined each of the past four years.

Table 3.1 Restraint Use Quality Measures

Restraint Use Measures	2002 (95% CI)	2003 (95% CI)	2004 (95% CI)	2005 (95% CI)
1. Proportion of residents in restraints every day during the preceding seven days	19.5% (17.7-21.3)	10.7% (9.3-12.1)	8.8% (7.6-10.1)	7.6% (6.4-8.8)
2. Proportion of residents observed in restraints	12.1% (10.6-13.6)	7.8% (6.6-9.0)	6.0% (4.9-7.0)	6.5% (5.4-7.6)
3. Proportion of those restrained who had been restrained 8 hours or more each day (average)	26.2% (21.7-30.7)	27.8% (21.5-31.4)	13.6% (8.5-18.8)	15.0% (9.3-20.8)

3.1.4. Conclusions

While the measured declines in restraint prevalence from 2003 to 2004 and from 2004 to 2005 are not statistically significant, the decline from 2003 to 2005 is significant. The reduction observed is consistent with the decline shown in the CMS quality measure for restraint use (see section 4.3.3). Moreover, while only 6% of Texas LTC facilities were restraint free in 2002, 21% were restraint free in 2005. Given the established reliability of the CMS quality measure, the current statewide value of that measure (6.6%), and the department's statewide goal of less than 5% restraint prevalence, subsequent LTCQR cycles will not examine this quality issue unless the CMS measure shows a significant increase in restraint prevalence. The technical assistance program will continue to focus its restraint reduction efforts on those facilities that show a prevalence of restraint use greater than 5%.

3.2. Continence Promotion

3.2.1. Overview

Approximately 60% of all nursing facility residents experience loss of bladder control (urinary incontinence) at least occasionally. While the underlying causes of this problem are not always reversible, there are behavioral interventions that can help such persons attain assisted continence. In order to achieve assisted continence, residents who have limited mobility may require adaptive equipment such as an inflatable pelvic lift, bedside commode, or urinal that allows toileting in the bed or at the bedside. Residents who have cognitive impairment can benefit from an individualized schedule of toileting assistance.

3.2.2. Related Quality Outreach Activities

From April 2004 through April 2005, continence promotion was addressed during 1,341 QM visits conducted in 809 distinct facilities. These visits included clinical audits of the care of 6,700 residents who experienced incontinence. The QM program's quality consultants presented their findings to facility staff and provided evidence-based technical assistance. In addition, the QM program staff held five PTPE workshops, attended by staff from 34 facilities, in order to bring facilities that had successfully implemented toileting programs together with other facilities that had not. No other quality improvement group has provided technical assistance concerning continence promotion to Texas nursing facilities.

In July 2005, CMS issued new surveyor guidance concerning urinary incontinence and bladder catheter use. Shortly after the release of this guidance, DADS co-sponsored a joint training conference on urinary incontinence.

3.2.3. Quality Improvement Trend

Table 3.1 shows the LTCQR quality measures related to the appropriateness of continence promotion. Measures 1-3 report characteristics of the residents. The next two measures report how often facilities provide behavioral continence promotion to residents who need it. Measure 6 indicates how well nursing facility staff identifies residents who do not need intervention. The last measure indicates the proportion of all residents likely to be found wet when one enters a facility.

Table 3.2 Continence Promotion Quality Measures

Continence Promotion Measure	2002 (95% CI)	2003 (95% CI)	2004 (95% CI)	2005 (95% CI)
1. Proportion of all residents with occasional or frequent incontinence	68.0% (65.9-70.1)	65.4% (63.2-67.5)	65.3% (63.2-67.4)	63.9% (61.7-66.0)
2. Proportion of residents who have severe mobility impairment and incontinence	-	-	21.1% (19.3-23.0)	23.8% (21.9-25.7)
3. Proportion of residents (regardless of mobility) who would have potentially benefited from toileting	89.5% (87.8-91.2)	94.1% (92.8-95.4)	83.9% (81.9-86.0)	83.7% (81.6-85.7)
4. Proportion of residents (regardless of mobility) who could have benefited from and actually had toileting plans	7.4% (5.9-8.9)	10.2% (8.5-12.0)	19.1% (16.8-21.5)	16.2%[§§] (14.0-18.5)
5. Proportion of residents who have severe mobility impairment and incontinence and also receive toileting	-	-	12.0% (9.0-14.9)	10.0% (7.3-12.8)
6. Proportion of residents who had no history of incontinence and who were also found to be dry at the time of assessment	99.0% (98.0-99.9)	97.7% (96.3-99.1)	95.9% (94.0-97.8)	87.1% (84.2-89.9)
7. Proportion of residents found to be wet at the time of assessment	35.2% (33.0-37.4)	32.3% (30.1-34.4)	44.9% (42.7-47.1)	48.4% (46.1-50.6)

[CI means confidence interval. The 95% CI is the value range that includes, with 95% certainty, the actual value that the measure estimates.]

3.2.4. Conclusions

Measure four shows that after some improvement in the use of continence promotion interventions from 2002-2004, progress has stalled. Measure seven shows that these interventions have not yielded the desired result – assisted continence and a lower likelihood of the resident being found wet. Comparison of the proportion of residents who were wet, from among those who experienced incontinence, and did or did not receive continence promotion showed that residents who received no intervention were twice as likely to be found dry than those who received intervention.

Although the technical assistance program emphasizes the importance of individualized continence promotion programs (i.e., personalized care programs based on individual

[§§] The value originally reported was the sensitivity of continence promotion interventions rather than its prevalence.

resident needs and abilities), most facilities use a fixed, every-two-hour schedule that is not effective. The principal incentive to provide fixed-schedule care is the Texas Index for Level of Effort (TILE) case-mix system that provides a financial reward for such programs and no reward for individualized programs of scheduled or prompted voiding.

The new CMS surveyor guidance for incontinence is grounded in evidence-based best practices. Thus, it is possible that a renewed regulatory emphasis on individualized, evidence-based care for incontinence will augment the effect of the technical assistance program and lead to continence promotion strategies that are more effective than every-two-hour toileting.

3.3. Indwelling Bladder Catheters

3.3.1. Overview

While widespread misuse of indwelling bladder catheters is not a problem in Texas nursing facilities, the LTCQR has focused on this issue primarily to ensure that such misuse does not occur in response to the department's expectation for appropriate continence promotion.

3.3.2. Related Quality Outreach Activities

From April 2004 through April 2005, appropriate clinical evaluation for the use of indwelling bladder catheters was addressed during 241 QM visits conducted in 177 distinct facilities. The care of 1,090 residents in whom indwelling bladder catheters were being used was addressed during these visits. While this is less emphasis than this issue received in 2004, the decrease in technical assistance provided for this issue represents a purposeful shift in emphasis to other statewide quality improvement priorities.

While no entity other than the QM program provides technical assistance to nursing facilities regarding the appropriate use of indwelling bladder catheters, the program collaborated with industry groups and the CMS-contracted quality improvement organization to sponsor a statewide training on the new CMS surveyor guidance for urinary incontinence. The new guidance addresses bladder catheter use as well as urinary incontinence.

3.3.3. Quality Improvement Trend

The observed prevalence of indwelling bladder catheter use and measures of the appropriateness of catheter use from 2002 to 2005 are shown in Table 3.2.

Table 3.3 Catheter Use Quality Measures

Catheter Use Measure	2002 (95% CI)	2003 (95% CI)	2004 (95% CI)	2005 (95% CI)
1. Proportion of residents with indwelling bladder catheters	5.7% (4.7-6.8)	6.1% (5.0-7.2)	6.4% (5.3-7.5)	5.7% (5.0-7.2)
2. Proportion of long-term catheters with appropriate clinical justification	22.0% (13.3-30.7)	39.4% (29.3-49.4)	27.2% (18.4-36.0)	44.6% (34.7-54.4)
3. Proportion of all catheters with appropriate clinical justification	30.1% (21.5-38.7)	44.4% (35.3-53.6)	35.9% (18.4-44.4)	46.1% (36.8-55.4)

3.3.4. Conclusions

There has been no increase in the usage of indwelling bladder catheters. Since 2002, the documented thoroughness of resident evaluation for the long-term use of these devices has improved. Although the improvement is modest, it is statistically significant. There remains opportunity to improve the timeliness and thoroughness of resident evaluation regarding indwelling bladder catheters, and the new CMS surveyor guidance for this issue represents an opportunity to add the incentive of regulatory intervention to the department's technical assistance and educational efforts.

3.4. Fall Risk Assessment

3.4.1. Overview

The concept of fall risk management recognizes that many falls are unavoidable and that while intrinsic risks (those that are associated with an individual's condition rather than with the environment) can be managed, they can never be eliminated. The factors most highly associated with falls among nursing home residents are impaired balance, lower extremity weakness, and medications (Robbins et al., 1989). A proper resident assessment for fall risk management addresses at least these three factors. Fall risk management consists of providing interventions that address the factors relevant to a particular resident (e.g., reducing or eliminating certain types of medications, providing personal toileting assistance, providing devices that assist the resident to ambulate more safely, etc.)

The quality measures from the 2004 LTCQR established the baseline for the statewide quality of fall risk management. The current LTCQR findings reflect the first full year of technical assistance for fall risk management. This topic was added to the LTCQR because falls are the most common reason for the inappropriate use of physical restraints in Texas nursing facilities (Cortés et al., 2002-2004).

3.4.2. Related Quality Outreach Activities

From April 2004 through April 2005, fall risk management was addressed during 1,231 technical assistance visits conducted in 774 distinct facilities. These visits included clinical audits of the care of 6,138 residents. Fall risk management was also addressed in 15 PTPE workshops in which 113 facilities participated. No entity other than the QM program provided technical assistance concerning this clinical issue to any significant number of facilities.

3.4.3. Quality Improvement Trend

Table 3.4 shows the LTCQR measures for fall risk management. There has been modest but significant improvement of fall risk assessment on admission and reassessment after a fall. The actual prevalence of falls is unchanged.

Table 3.4 Fall Risk Management Quality Measures

Fall Risk Management Measures	2004 (95% CI)	2005 (95% CI)
1. Proportion of residents who had appropriate fall risk assessment on admission or most recent MDS assessment	60.0% (57.8-62.2)	64.9% (62.8-67.0)
2. Proportion of residents who had experienced a fall in the 30 days preceding the LTCQR assessment	8.8% (7.6-10.1)	10.1% (8.8-11.5)
3. Proportion of residents who had appropriate fall risk reassessment after a fall	34.0% (26.3-41.6)	50.0% (42.8-57.2)
4. From among residents who had experienced a fall in the last 30 days, the proportion that also received at least one drug associated with falls.	46.0% (38.5-53.5)	51.2% (44.2-58.2)
a. Proportion who were receiving anti-adrenergic drugs	13.1% (8.0-18.1)	7.4% (3.7-11.1)
b. Proportion who were receiving anti-anxiety drugs	26.7% (20.0-33.4)	39.9% (33.0-46.8)
c. Proportion who were receiving sedative/hypnotic drugs	14.8% (9.0-20.1)	17.7% (12.4-23.1)
d. Proportion who were receiving tricyclic antidepressants	2.8% (0.3-5.3)	3.0% (0.6-5.3)

The four drug classes identified in the fourth quality measure have been implicated in the geriatric clinical literature as causes for falls. These were no more common this year than in the 2004 LTCQR. Among the 2005 LTCQR sample, only the anti-anxiety drugs were highly associated with an increased likelihood of a fall in the preceding 30 days.

3.4.4. Conclusions

While the prevalence of falls remains unchanged, there have been modest but significant improvements in the appropriateness of fall risk assessment on admission and of resident reassessment after a fall. There is room for improvement, and the QM program will continue to focus on resident assessment and risk management interventions in order to assist providers to make those improvements.

3.5. Pain Assessment

3.5.1. Overview

As in 2004, this LTCQR addressed the current and recent intensity of residents' pain symptoms, the manner in which pain was being assessed by facility staff, and residents' satisfaction with pain relief. The LTCQR nurse reviewer assessed each resident for pain using the Wong-Baker Faces (Wong, 2001) assessment instrument. Item answers for residents who could not respond to the pain assessment instrument or whose clinical record did not address pain assessment were coded as *Unable to determine*.

The recognition of pain symptoms can be improved by using validated pain assessment instruments (Kamel et al., 2001). Validated instruments include the Wong-Baker Faces scale, Verbal Numeric Scale, Visual Analog Scale, and Pain Thermometer, among others. While these tools can also be used to assess persons who have cognitive impairment and are still capable of verbal responses, all such persons should also have a pain assessment based on behavioral observation. The Pain Assessment in Advanced Dementia (PAINAD) scale (Warden et al., 2003) and the Discomfort Scale – Dementia of the Alzheimer's Type (DS-DAT) (Hurley, 1992) are the best validated observational tools currently available (Stolee et al., 2005). In the 2005 LTCQR, the Abbey Pain scale (Abbey et al., 2004) was deemed an appropriate assessment tool although the validity and reliability of this tool remain to be demonstrated (Herr et al., 2004).

A Cognitive Performance Scale (CPS) score greater than three was interpreted as severe cognitive impairment. The CPS was calculated from each resident's most recent MDS assessment.

3.5.2. Related Quality Outreach Activities

From April 2004 through April 2005, the QM program addressed pain assessment in 802 visits to 503 distinct facilities. These visits included clinical audits of the care of 4,013 residents. Pain assessment and management were addressed in 16 PTPE workshops involving staff from 120 facilities. The JT program offered 16 classes on this

subject to 187 provider attendees. No entity other than the QM program provided technical assistance concerning this clinical issue to any significant number of facilities.

3.5.3. Quality Improvement Trend

The LTCQR quality measures are reported for all residents, those who have severe cognitive impairment, and those who do not.

3.5.3.1. Quality Measure Trend: All Residents

In Table 3.5, measures 6-10 are based on the 1,999 residents in the sample for whom both LTCQR resident assessments and medication administration records were available. The remaining measures are based on all 2,005 residents.

Table 3.5 Pain Quality Measures for All Residents

Pain Assessment and Management Measures – All Residents	2004 (95% CI)	2005 (95% CI)
1. Proportion of residents who responded to the QR pain assessment	74.3% (72.3-76.3)	83.1% (81.5-84.8)
2. Proportion of residents who had evidence of being assessed for pain by facility staff in the most recent seven days	42.4% (40.2-44.6)	58.5% (56.3-60.7)
3. Proportion of residents who reported moderate-to-severe pain on the QR pain assessment*	6.6% (5.5-7.7)	6.8% (5.7-7.9)
4. Proportion of residents whose clinical records revealed moderate-to-severe pain in the most recent seven days	5.4% (4.4-6.4)	7.5% (6.4-8.7)
5. Prevalence of moderate-to-severe pain determined by either QR or the clinical record	10.1% (8.7-11.4)	12.3% (10.8-13.7)
6. Proportion of residents with moderate-to-severe pain who did not receive any analgesics	12.4% (7.8-17.1)	11.8% (7.7-15.9)
7. Proportion of residents with moderate-to-severe pain who received only non-opioid analgesics	40.3% (32.9-47.7)	47.2% (40.8-53.5)
8. Proportion of residents with moderate-to-severe pain who received opioids on an as-needed basis	31.3% (24.3-38.2)	30.1% (24.2-35.9)
9. Proportion of residents with moderate-to-severe pain who received propoxyphene	13.6% (8.5-18.8)	13.0% (8.7-17.3)
10. Proportion of residents with moderate-to-severe pain who were satisfied with level of pain relief obtained in the preceding 24 hours.	70.1% (63.7-76.6)	67.5% (61.5-73.5)

*QR pain assessment = Wong-Baker Face pain assessment administered by the LTCQR nurse reviewer

The first nine LTCQR measures are process measures. The tenth is an outcome measure that depicts resident satisfaction with pain control. While the key process measures have improved significantly since 2004, there has been no change in the percentage of residents not satisfied with the level of relief they obtain for moderate-to-

severe pain. Achieving adequate pain control ultimately involves not only detecting it (as improvements in the process of pain assessment make possible) but also communicating the assessment findings to the physician and then treating the pain.

Moderate-to-severe pain continues to be both under-recognized and under-treated. The sixth measure shows that 12% of residents with moderate-to-severe pain receive no analgesics. While half of these residents were on one or more medications that might have been prescribed for neuropathic pain, neither LTCQR nor MDS data permitted distinguishing either the kind of pain or the purpose of the anticonvulsant or antidepressant agent that these residents were receiving.[***]

Although the overall prevalence of propoxyphene use decreased (see section 3.10.4 Table 3.17), its use for the treatment of moderate-to-severe pain did not. Propoxyphene is a poor drug choice for most persons older than age 65 because it has all the disadvantages and side effects of opioid analgesics and a pain relieving effect no greater than that of safer agents such as acetaminophen.

3.5.3.2. Quality Measure Trend: No Severe Cognitive Impairment

The measures in Table 3.6 were based on the 1,441 residents (71.9% of the LTCQR sample) who did not have severe cognitive impairment.

Table 3.6 Pain Measures for No Severe Cognitive Impairment

Residents with No Severe Cognitive Impairment (NSCI)	2004 (95% CI)	2005 (95% CI)
1. Proportion of residents who responded to the QR pain assessment	85.5% (83.6-87.4)	92.2% (90.7-93.6)
2. Proportion of residents who had evidence of being assessed for pain by facility staff in the most recent seven days	43.3% (40.6-46.0)	60.8% (58.2-63.4)
3. Proportion of residents who reported moderate-to-severe pain on the QR pain assessment*	8.9% (7.4-10.5)	8.3% (6.9-9.8)
4. Proportion of residents who had had a pain assessment in the last seven days and had been evaluated using a validated pain assessment tool	53.4% (49.5-57.2)	64.0% (60.8-67.3)
5. Proportion of residents whose clinical records revealed moderate-to-severe pain in the most recent seven days	6.7% (5.4-8.1)	9.3% (7.8-10.8)
6. Prevalence of moderate-to-severe pain determined by either QR or the clinical record	12.9% (11.1-14.8)	15.0% (13.1-16.9)

*QR pain assessment = Wong-Baker Face pain assessment administered by the LTCQR nurse reviewer

[***] Both anticonvulsants and antidepressants can be used to manage neuropathic pain. The extent of pain relief obtained with any specific agent is highly variable between patients.

There was significant improvement in both the frequency and quality of assessment for pain intensity among residents who had no severe cognitive impairment. In 2004, less than half of these residents had an assessment for pain in the preceding week; in 2005, that proportion was 61%. While there was a corresponding increase in the detection of moderate-to-severe pain, the increase was not statistically significant.

3.5.3.3. Quality Measure Trend: Severe Cognitive Impairment

The measures in Table 3.7 are based on the 564 residents (28.1% of the LTCQR sample) who had severe cognitive impairment.

Table 3.7 Pain Measures for Severe Cognitive Impairment

Residents with Severe Cognitive Impairment (SCI)	2004 (95% CI)	2005 (95% CI)
1. Proportion of residents who responded to the QR pain assessment	47.7% (43.6-51.8)	60.1% (56.0-64.2)
2. Proportion of residents who had evidence of being assessed for pain by facility staff in the most recent seven days	40.5% (36.4-44.5)	52.7% (48.5-56.9)
3. Proportion of residents who reported moderate-to-severe pain on the QR pain assessment*	1.5% (0.5-2.5)	2.8% (1.4-4.2)
4. Proportion of residents whose clinical records revealed moderate-to-severe pain in the most recent seven days	2.4% (1.1-3.6)	3.0% (1.6-4.5)
5. Prevalence of moderate-to-severe pain determined by either QR or the clinical record	3.7% (2.2-5.3)	5.3% (3.4-7.2)
6. Proportion who had behavioral pain assessment (i.e., PAINAD)	14.3% (11.5-17.2)	27.0% (23.2-30.7)

*QR pain assessment = Wong-Baker Face pain assessment administered by the LTCQR nurse reviewer

Assessing pain intensity in persons with severe cognitive impairment is challenging. Only 60% of residents with severe cognitive impairment were able to respond to the LTCQR nurse reviewer's verbal pain assessment tool in contrast to 92% of residents without such impairment. Compared to residents without severe impairment, a significantly smaller proportion of those with severe impairment had evidence of any type of pain assessment in the preceding seven days. Nonetheless, there has been modest but significant improvement in the use of validated behavioral pain assessment tools such PAINAD and DS-DAT. Now, 27% of the clinical records of residents who have severe impairment have evidence of assessment for pain-related behaviors whereas only 14.3% did in 2004.

3.5.4. Conclusions

The majority of Texas nursing facility residents, including those who experience chronic pain, does not receive weekly pain assessments. Although 83% of all residents can respond to a validated pain assessment tool, staff uses such tools only 58% of the time.

Thus, moderate-to-severe pain continues to be under-recognized and under-treated. The frequency and quality of assessment for pain remain significant statewide opportunities for improving the quality of care and quality of life of LTC residents.

There has been improvement in the process of pain assessment, and that progress is especially significant among residents who have severe cognitive impairment.

3.6. Immunization Practices

3.6.1. Overview

The Centers for Disease Control and Prevention's (CDC) Advisory Committee on Immunization Practices (ACIP) recognizes persons in LTC facilities as a high-risk group for pneumococcal disease (Nuorti et al., 1997) and influenza (Harper et al., 2005). Persons over the age of 65 are particularly vulnerable to these infections because of chronic medical conditions, congregate living, and less responsive immune systems (Bridges et al., 2003; Schwebke, 1999). The Healthy People 2010 (HP2010) goals for vaccination rates against both diseases are 90% (US Department of Health and Human Services, 2000).

The 2004 LTCQR measured the baseline LTC vaccination rates for influenza and pneumococcal disease in nursing facilities, and this 2005 report provides a view of the impact of the department's quality improvement efforts in this area. The impact of last year's influenza vaccine shortage on the 2005 influenza vaccination rate is not known.

3.6.2. Related Quality Outreach Activities

From April 2004 to April 2005, 875 QM visits to 678 distinct facilities addressed the vaccination status of 6,946 residents. Vaccination practices were also discussed during six PTPE sessions that engaged staff from 42 facilities.

The influenza vaccination rate among residents assessed during QM program technical assistance visits was 69.2%, and the pneumococcal vaccination rate was 33.9%. Both figures are greater than the corresponding 2005 LTCQR findings (see Table 3.8).[†††] The QM nurse quality consultants also record the influenza vaccination status of nursing facility staff because staff vaccination is an important facility strategy for infection control (Carman, et al., 2000). Among the 6,763 nursing facility staff whose vaccination records were audited during QM or RRT visits, 38% had been vaccinated for influenza during the current influenza season.

[†††] It is important to note that the vaccination rate figure that is determined from the technical assistance visits (QM and RRT visits) may not be representative of the LTC staff population. The sampling methodology of the clinical audit process yields a purposive rather than random or proportional sample.

3.6.3. Quality Improvement Trend

Table 3.8 shows the LTCQR quality measures for vaccinations. The first two measures establish a corridor for the likely vaccination rate for pneumococcal disease. The self-reported rate establishes the upper limit, and the rate determined from clinical documentation establishes the lower limit. Thus, at least 24.5% and no more than 39.7% of LTC residents received the recommended vaccination. The second pair of measures establishes the upper and lower limits for the actual influenza vaccination rate. At least 43.4% and no more than 62.0% of LTC residents received the recommended influenza vaccine. In both instances, a significant proportion of residents reportedly vaccinated did not have adequate clinical record evidence of vaccination.

Table 3.8 Quality Measures for Vaccinations

Immunization Measures	2004 (95% CI)	2005 (95% CI)
1. Proportion of residents who reported having pneumococcal vaccination	26.7% (24.7-28.6)	39.7% (37.5-41.8)
2. Proportion with adequately documented pneumococcal vaccination	14.8% (13.2-16.3)	24.5% (22.6-26.4)
3. Proportion of residents who reported having influenza vaccination	59.0% (56.8-61.2)	62.0% (59.8-64.2)
4. Proportion with adequately documented influenza vaccination	39.9% (37.7-42.1)	43.4% (41.2-45.6)
5. Proportion with no influenza vaccination because of egg allergy or GBS	1.7% (0.8-2.6)	1.3% (0.5-2.1)
6. Proportion with no vaccination for influenza because of refusal	10.5% (8.4-12.7)	14.5% (11.9-17.0)
7. Proportion not vaccinated who could have received a vaccination for influenza	87.8% (85.5-90.1)	84.2% (81.6-86.9)

3.6.4. Conclusions

While there has been modest but significant improvement in the rate of pneumococcal vaccination, the current vaccination rates for both influenza and pneumococcal disease in Texas nursing facilities still fall below the Healthy People 2010 goal of 90%. For pneumococcal vaccination, improvements will probably be cumulative since, for most nursing home residents, a single vaccination given at the appropriate time is sufficient. In contrast, improving influenza vaccination rates is an ongoing challenge because revaccination is required each year.

The proportion of residents refusing vaccination, while showing no significant change, represents an opportunity for facilities to improve their educational efforts regarding the benefits of proper vaccination. During the 2004-2005 influenza season, the shortage of

influenza vaccine may have contributed to both the absence of significant improvement in the rate of resident vaccination as well as to the low vaccination rate among staff.

3.7. Advance Care Planning

3.7.1. Overview

Advance care planning (ACP) is a process of informed decision-making that is meant to honor resident autonomy and choice. The national conversation around the case of Ms. Terri Schiavo has recently highlighted advance planning for end-of-life care (Bloche, 2005). ACP was first addressed in the 2004 LTCQR in order to assess the need for related technical assistance. The 2004 quality measures established a baseline for whether each resident had had initial and subsequent discussions regarding ACP, had ACP documents that were readily accessible, and was receiving care consistent with the instructions in those documents.

3.7.2. Related Quality Outreach Activities

The QM technical assistance program developed a clinical audit for ACP early in 2005, and technical assistance began in August 2005. Thus, changes in the quality measures for ACP reflect the impact of interventions other than on-site technical assistance. From April 2004 to April 2005, the department's quality outreach activity for advance care planning consisted of six joint training sessions attended by 97 provider attendees.

It is important to note that the Texas Partnership for End of Life Care (TxPEC), Texas Geriatrics Society, and Texas Medical Directors Association all offer on-going training on ACP and palliative care to their membership as well as to the public.

3.7.3. Quality Improvement Trend

The first five measures in Table 3.9 are based on the complete 2005 LTCQR resident sample. The remaining two measures are based on those residents whose clinical records had ACP documents (74% of all the residents in the sample). Together, these measures depict some but not all of the elements that would be needed in order to ensure that residents have access to a high quality advance care planning process.

Table 3.9 Advance Care Planning Quality Measures

Advance Care Planning Measures	2004 (95% CI)	2005 (95% CI)
1. Proportion who had a documented initial ACP discussion	91.9% (90.7-93.1)	90.8% (89.5-92.1)
2. Proportion who had an initial ACP discussion either prior to admission or within 21 days of admission	65.4% (63.3-67.5)	68.3% (66.1-70.3)
3. Proportion who had subsequent ACP discussions	25.7% (23.7-27.7)	31.6% (29.5-33.7)
4. Proportion whose clinical records contained one or more ACP documents	82.4% (80.7-84.1)	73.9% (71.9-75.8)
5. Proportion who had both a documented initial ACP discussion and one or more ACP documents	81.3% (79.6-83.1)	73.4% (71.4-75.3)
6. From among those with ACP documents, the proportion whose documents could be located within 30 seconds of accessing the clinical record	94.0% (92.8-95.1)	97.8% (97.0-98.5)
7. Among residents having ACP documents, the proportion receiving care consistent with their ACP instructions	97.9% (97.2-98.6)	98.6% (98-99.2)

3.7.4. Conclusions

In 2005, most nursing facility residents had an initial ACP discussion, but only 74% of these discussions resulted in an ACP document. This proportion is a significant decline from 2004, and it suggests that greater public awareness of the importance of advance care planning does not necessarily lead to an increase in the use of ACP documents. While the majority (68%) of ACP discussions occurred in a timely manner, there remains room for improvement. There has been a modest yet significant improvement in ensuring that there are subsequent ACP discussions – either annually or when there is a significant change in the resident's health status.

Nursing facilities appear to have effective systems for organizing ACP documents, and 98% of such documents can be found within seconds of accessing a resident's clinical record. This represents a small but significant process improvement. Virtually all care observed in the LTCQR was found to be consistent with the resident's documented ACP wishes. What is not known is whether decisions to forego emergency interventions such as cardiopulmonary resuscitation are faithfully honored; a review of death records would be necessary to ascertain this.

3.8. Artificial Nutrition and Hydration

3.8.1. Overview

Artificial nutrition and hydration (ANH) in nursing facilities generally takes the form of enteral feeding through a conduit placed directly into the stomach or upper intestine. This is commonly called tube feeding. Such conduits, placed through the nasal passage and threaded into the stomach, are used to provide fluids and nutrients for short periods. The provision of longer-term nutritional support is generally accomplished through a feeding tube placed directly through the skin of the abdomen into the upper gastro-intestinal tract using a surgical procedure called percutaneous endoscopic gastrostomy (PEG).

The most common reasons for the use of ANH in LTC are the following: to prolong life, prevent aspiration pneumonia, and promote the healing of wounds including pressure sores. However, in many clinical contexts, most notably late-stage dementia, there is persuasive evidence that ANH does not accomplish these goals. In fact, ANH can yield the exact opposite results. For instance, ANH incurs a greater risk of aspiration pneumonia in persons with late-stage dementia (Peck et al., 1990). Similarly, ANH provided to persons who have progressive terminal conditions such as late-stage dementia, late-stage cancer, or end-stage organ failure rarely benefits the person.

The majority of research in this area suggests that careful hand feeding provides residents who have end-stage conditions the pleasure of food and drink, the social comfort of meals, the avoidance of the complications of artificial nutrition and hydration, and an outcome otherwise comparable to that of similar residents given ANH (Li, 2002).

The prevalence of tube feeding in Texas LTC facilities is near the national average (CMS Quality Indicator Reports, 2004).

3.8.2. Relationship to the Minimum Data Set

The MDS-based Center for Health Systems Research (CHRSA) quality indicator for tube feeding is the prevalence of tube feeding. Simple prevalence does not reveal whether the clinical indications for the use of ANH are appropriate. That is, because research that shows that ANH offers no better outcome than careful hand feeding in certain clinical circumstances, the avoidance of ANH in those circumstances represents a higher quality of care.

3.8.3. Related Adverse Resident Outcomes

The risks and adverse outcomes of PEG include surgical complications, peritonitis, infections of the PEG site, aspiration pneumonia, and volume overload (Li, 2002). The

adverse effects on quality of life include the use of restraints to prevent the resident from removing the feeding tube, deprivation of the social contact associated with meals, and a loss of the simple oral pleasures of eating and drinking.

3.8.4. Criteria for Appropriateness

The LTCQR measures for the appropriateness of artificial nutrition and hydration address three aspects of quality; the rational basis for the use of ANH, the completeness of the process for informed consent, and the evaluation of the effects of the intervention against rational therapeutic goals. That is, tube feeding is inappropriate if one or more of the following is true:

1) There is no rational reason to believe that it will benefit the resident

2) The resident and/or family are not adequately informed regarding the risks, expected benefits, burdens, and uncertainties of tube feeding compared to alternative treatments

3) The outcome of artificial nutrition and hydration are not evaluated rigorously against measurable resident goals within 30-days of intervention

3.8.5. Related Quality Outreach Activities

The QM program began providing technical assistance on tube feeding in March 2005. By April 2005, tube feeding had been addressed during 24 visits to 24 facilities involving the care of 64 residents. Thus, the following findings essentially represent a pre-intervention benchmark with respect to QM technical assistance.

3.8.6. Findings

In the first two measures reported in Table 3.10, the denominator is the number of residents receiving tube feedings (n=165). In the third measure, the denominator is the number of residents receiving tube feedings for more than 30 days (n=157).

Table 3.10 Artificial Nutrition and Hydration Quality Measures

Artificial Nutrition and Hydration Measures	2005 (95% CI)
1. Proportion of residents who were receiving ANH and in whom there was no rational basis for expecting benefit	57.6% (49.9-65.3)
2. Proportion of residents receiving ANH and who did not have a clearly documented informed consent discussion	70.9% (63.8-78.0)
3. Proportion of residents receiving ANH who either had no therapeutic goals or whose ANH had not been evaluated against those goals after 30 days	59.2% (32.9-48.6)

The care of virtually all residents (98%) receiving tube feedings was affected by one or more of these quality issues.

3.8.7. Conclusions

In Texas nursing facilities, as in the rest of the country, tube feeding is often used without a rational, scientific reason and without the resident and family understanding that it imposes a significant burden of discomfort on the resident and yields little or no benefit when used as an end-of-life intervention. Achieving that understanding requires a meaningful process of advance care planning and informed consent. These LTCQR benchmarks show that improving both advance care planning and tube feeding decisions are significant opportunities for improving the quality of care and quality of life of LTC residents.

3.9. Psychoactive Medication Usage

3.9.1. Overview

The LTCQR addresses the appropriateness of antipsychotic, anti-anxiety, and sedative/hypnotic medication use among persons 65 years and older. The LTCQR focus on older residents is driven by two factors: 1) the prevalence of behavioral symptoms related to illness, pain, or cognitive impairment, and 2) the vulnerability of this subgroup to serious adverse drug effects such as falls (Tamblyn, 2005) and death (FDA, 2005).

LTCQR pharmacists review medication administration records, physician orders and other clinical documents in order to determine the following:

1) Whether there is a valid clinical indication for the medication

2) Whether there are measurable treatment goals

3) Whether reliable monitoring methods are being used to assess the impact of treatment as it relates to the goals

3.9.2. Related Quality Outreach Activities

From April 2004 to April 2005, 156 QM visits addressed the use of antipsychotic agents among 553 residents in 146 unique facilities. The use of anti-anxiety agents among 258 residents was addressed during 77 visits to 74 distinct facilities. Sedative/hypnotic drug use was addressed in 68 visits to 62 facilities involving the care of 218 residents.

Psychoactive medication use was addressed in 16 QM program PTPE workshops attended by staff from 120 facilities while the JT program addressed the issue in 17 classes attended by 513 provider attendees.

3.9.3. Prevalence of Psychotropic Medication Use

Table 3.11 shows the prevalence of psychoactive medication use among the sample of LTCQR residents aged 65 years and older for whom medication administration records were available (n=1,770).

Table 3.11 Prevalence of Psychotropic Medication Use

Psychoactive Class	National 2003	Texas 2002	Texas 2003	Texas 2004	Texas 2005
Antipsychotic	23.6%	29.9% (27.7-32.1)	28.9% (26.8-31.1)	31.9% (29.6-34.1)	32.6% (30.4-34.8)
Anti-anxiety	10.7%	17.0% (15.2-18.8)	18.7% (16.8-20.6)	25.5% (23.4-27.6)	28.8% (26.7-31.0)
Sedative/ hypnotics	2.8%	7.5% (6.3-8.7)	8.5% (7.2-9.9)	10.3% (8.8-11.7)	12.2% (10.6-13.8)

While all three LTCQR measures show increasing use of psychoactive medications, only the anti-anxiety and hypnotic drug usage rates are significantly higher than they were in 2003. Historically, the rates of psychoactive medication use in LTC facilities are greatest among the southern states (Tobias, 2001) whereas the prevalence of psychiatric illness and cognitive impairment in Texas nursing facilities is historically near the national average (Harrington, 2000).

3.9.4. Antipsychotic Medication Usage

3.9.4.1. Overview

Antipsychotic medications are used in LTC for a variety of clinical indications not all of which are considered valid by CMS guidelines. The most common of these is off-label (not FDA-approved) use in an attempt to control behavioral symptoms that occur among persons who have dementia. There is increasing evidence that these medications are no more effective than placebo in controlling the neuropsychiatric functioning of such persons (Deberdt et al., 2005). Moreover, in April 2005, the FDA issued a public health advisory concerning the use of newer-generation antipsychotic medications (often-called *atypical antipsychotics*) in the treatment of geriatric patients with behavioral symptoms related to dementia (FDA, 2005). The advisory warned that the use of these drugs appear to be associated with an increased risk of death in this group. While the FDA has not yet issued a similar advisory for older-generation antipsychotic medications, the agency is reviewing evidence that suggests that these agents too are associated with similar risks.

3.9.4.2. Quality Improvement Trend

Table 3.12 shows the statewide prevalence of antipsychotic medication use and the proportion of all orders for antipsychotic agents in the absence of clinical indications recognized by CMS. The proportion of residents on antipsychotic agents is based on 1,770 residents in the LTCQR sample 65 years or older.

Table 3.12 Appropriateness of Antipsychotic Medication Use

Year	Measures of Antipsychotic Usage	
	Proportion of Residents on Antipsychotic Medications (95% CI)	**Observed % of Prescriptions With No CMS Indication** (95% CI)
2002	**29.1%** (27.0 – 31.1)	**29.3%** (25.5 – 33.1)
2003	**31.0%** (29.0 – 33.1)	**37.5%** (33.6 – 41.4)
2004	**31.9%** (29.6 – 34.1)	**57.7%** (54.0 – 61.5)
2005	**32.6%** (30.4 – 34.8)	**42.6%** (39.0 – 46.2)

The trend since 2002 shows increasing use of these agents. Given that trend, the apparent improvement in prescribing indications from 2004 to 2005 likely reflects changes in documentation rather than a reduction in the use of these medications as treatment for behavioral symptoms of dementia.

A breakdown of the classes of antipsychotic medications given to Texas nursing home residents is shown in Table 3.13. The proportions in the table are based on those residents 65 years or older taking antipsychotic medications (n=747).

Table 3.13 Appropriateness of Antipsychotic Medication Use by Drug Class

Year	Antipsychotic Sub-group Measures		
	% Prescriptions for atypical agents (95% CI)	**% Prescriptions for atypical agents with no CMS indication** (95% CI)	**% Prescriptions for typical agents with no CMS indication** (95% CI)
2002	**88.7%** (86.1 – 91.4)	**29.2%** (25.1 – 33.2)	**30.8%** (19.3 – 42.2)
2003	**93.4%** (91.4 – 95.4)	**37.5%** (33.4 – 41.6)	**37.5%** (22.2 – 52.8)
2004	**87.6%** (85.1 – 90.1)	**58.6%** (54.6 – 62.6)	**51.8%** (40.9 – 62.6)
2005	**90.0%** (87.8 – 92.2)	**41.5%** (37.7 – 45.3)	**62.7%** (51.5 – 73.8)

The majority of antipsychotic medication is administered according to a fixed schedule. Of the 83 residents who were prescribed an as-needed antipsychotic agent, 36 were prescribed haloperidol (an older agent), and the remainder was prescribed an atypical agent.

3.9.4.3. Conclusions

The appropriateness of antipsychotic prescribing in Texas LTC facilities continues to be an important clinical issue, and new concerns about the risks of the newer generation of antipsychotic medications calls into question the use of this drug class in older nursing home residents. Moreover, recent studies belie the purported safety advantages of the newer agents over the older ones (Hien et al., 2005; Lee et al., 2005).

The lack of a measurable impact of quality outreach efforts on this issue reflects the lack of an adequate workforce, particularly pharmacists, to conduct that work, the persuasive effect of pharmaceutical marketing, and the fact that the regulations concerning chemical restraints apply to nursing homes rather than to the clinicians who prescribe these medications.

Given the slow effect of FDA warnings on the prescribing of other medications with serious adverse drug effects (Wilkinson et al., 2004), it seems unlikely that a single FDA warning concerning the risks of atypical antipsychotic agents in the elderly will alter the prevalence of antipsychotic drug prescribing among nursing home residents. Whether this and subsequent FDA warnings, with or without additional safeguards that could be introduced through the MEDICARE prescription program, help to reduce the off-label use of antipsychotic medications among nursing facility residents should be apparent in subsequent LTCQR cycles.

3.9.5. Anti-anxiety Medication Usage

3.9.5.1. Overview

Anti-anxiety medications are appropriate for the treatment of persons with diagnosed anxiety disorders. These disorders occur in 5% to 20% of the elderly (Kogan et al., 2000; Sadavoy and LeClair, 1997). While the 2004 LTCQR established that a comparable percentage of older Texas LTC residents took these medications, it also clearly established that formal diagnosis of an anxiety disorder and rigorous monitoring of the resident for therapeutic benefit were distinctly uncommon.

The LTCQR quality measures for the use of anti-anxiety medications in residents 65 years and older appear in Table 3.14. The first measure is based on all residents 65 and older (n=1,770). The second and third measures are based on elderly residents who received an anti-anxiety medication in the seven days preceding their LTCQR assessment (n=510).

Table 3.14 Appropriateness of Anti-anxiety Medication Use

Use of Anti-anxiety Medications	2004 (95% CI)	2005 (95% CI)
1. Proportion of residents who received an anti-anxiety medication in the last seven days	25.5% (23.4-27.6)	28.8% (26.7-31.0)
2. From among residents who received an anti-anxiety medication, the proportion that had a diagnosable anxiety disorder with one or more symptoms of anxiety.	26.2% (22.0-30.4)	12.7% (9.8-15.7)
3. From among residents who received an anti-anxiety medication, the proportion that had appropriate therapeutic monitoring	4.8% (2.7-6.8)	3.1% (1.6-4.7)

The second and third measures show no improvement in the appropriate use of anti-anxiety medications; instead, there has been a decline in the proportion of persons receiving anti-anxiety medications for a definable anxiety disorder. This may reflect a more frequent use of these drugs as treatment for non-anxiety conditions, or it may reflect poor documentation of appropriate prescribing indications.

3.9.5.2. Conclusions

The majority of anti-anxiety drug use in LTC facilities most likely targets behavioral symptoms (e.g., agitation) rather than particular diseases or syndromes such as anxiety disorders or delirium. The effects of treatment (beneficial or adverse) are rarely assessed rigorously. This trend toward symptomatic treatment rather than treatment based on a diagnostic hypothesis has pitfalls including a tendency toward increasing the number of medications a resident receives, increasing the risk of adverse drug events, and possibly missing the opportunity to identify an underlying medical or psychiatric condition that manifests with non-specific behavioral symptoms.

3.9.6. Sedative/Hypnotic Medication Usage

3.9.6.1. Overview

The appropriate use of sleep-inducing medications (sedatives and hypnotics) is important because up to 75% of LTC residents report some type of sleep disturbance (Gentili et al., 1997; Middelkoop et al., 1994). Sleep disturbances among older residents, particularly disturbances that result from poor sleep hygiene, may often respond to non-drug therapy. Poor sleep hygiene can be the result of individual bedtime habits as well as environmental factors such as excessive noise and light (Ersser et al., 1999). Similarly, medical causes of sleep disturbances such as untreated pain, sleep disordered breathing, periodic limb movements, and restless leg syndrome require treatment other than hypnotic medications. Despite treatment alternatives, sedating or hypnotic medications are commonly used to address sleep disturbances in nursing facilities.

The 2004 LTCQR showed that 10% of Texas residents took a bedtime medication for sleep; that sleep hygiene measures were rarely used; that the majority of residents taking such medications had taken them more than two days in the preceding week; and that monitoring the effect of treatment was uncommon (Cortés and Chou, 2004).

3.9.6.2. Quality Improvement Trend

The first four measures in Table 3.15 are based on a review of the medication administration records of the 1,770 residents in the sample aged 65 and older. The last five measures are based on the complete LTCQR sample of 2,005 residents.

Table 3.15 Appropriateness of Sedative/Hypnotic Medication Use

Use of Sedative/Hypnotic Medications	2004 (95% CI)	2005 (95% CI)
1. Proportion of residents, based on pharmacist review, that had sedative/hypnotic medication orders in the last seven days	10.3% (8.8-11.7)	12.2% (10.6-13.7)
2. Proportion from among those that received a sedative/hypnotic who received the medication for at least one day in the last seven days	59.9% (52.5-67.3)	61.1% (55.4-67.8)
3. Proportion from among those that received a sedative/hypnotic who received the medication for more than two days in the last seven days	49.1% (41.6-56.7)	54.6% (47.9-61.4)
4. Proportion from among those that received a sedative/hypnotic who received the medication on an as-needed basis in the last seven days	22.6%* (16.3-28.9)	20.4% (14.9-25.9)
5. Proportion of residents who had an active medication order for sleep problems in the last 14 days based on nurse quality review	10.6% (9.3-12.0)	15.7% (14.1-17.3)
6. Proportion whose last 14 days of MARs showed an active order for sleep medication and who also reported sleep problems in the past 14 days	40.6% (33.8-47.3)	30.8% (25.6-36.0)
7. Proportion whose last 14 days of MARs showed an active order for sleep medication and who had had a stressful event in the last 14 days	5.2% (2.1-8.2)	6.0% (3.3-8.7)
8. Proportion whose last 14 days of MARs showed an active medication order for sleep problems and who had had an evaluation for sleep hygiene	23.6% (17.8-29.4)	18.1% (13.8-22.4)
9. Proportion whose last 14 days of MARs showed an active medication order for sleep problems and whose sleep had been monitored the last 14 days	38.7% (32.0-45.4)	18.4% (14.0-22.8)

* The 63.8% reported in the 2004 LTCQR included all as-needed active prescriptions regardless of whether the resident actually received a dose in the last seven days. The figure shown here has been adjusted to reflect only those residents who actually received the medication in the last seven days.

The significant changes from 2004 to 2005 are an increase in the percentage of residents who had an active medication order for sleep in the 14 days preceding

LTCQR assessment and large decrease in the proportion of residents receiving monitoring for treatment effects. Review of the most recent 7 days of medication administration records showed an increase in the percentage of residents with orders for sedative/hypnotics that paralleled the increase noted when reviewing the care over the last 14 days, but that increase was not statistically significant.

3.9.6.3. Conclusions

There has been no improvement in the appropriateness of sedative/hypnotic drug use in Texas LTC facilities. Treatment with these medications appears to be symptom-driven, initial treatment (i.e., without a trial of non-drug therapy), and monitored for effectiveness in a declining minority of cases. These quality issues parallel those observed in the use of antipsychotic and anti-anxiety medications.

3.10. Safety of LTC Prescribing Practices

3.10.1. Overview

Appropriate medication use is a national patient safety issue. Medication administration errors such as giving the wrong medication or the wrong dose compromise patient safety. The safety of medication use in LTC can also be compromised by polypharmacy (the use of multiple medications), the use of medications that have poor safety profiles in persons over age 65, and the use of medication combinations that have a high risk of untoward interaction. Each of these increases a resident's risk for adverse drug events. The annual cost of drug-related morbidity and mortality in nursing facilities in 1997 was $7.6 billion (Bootman et al., 1997).

The 2005 LTCQR examines the following:

- The number of medications and active ingredients given to each resident
- The prevalence of use of specific medications that have poor safety profiles in the elderly (the Beers List of medications)
- The prevalence of the ten potentially hazardous drug combinations

3.10.2. Related Quality Outreach Activities

The technical assistance program's focus in this area has been on reducing polypharmacy through the process of medication regimen simplification. From April 2004 to April 2005, QM pharmacist quality consultants addressed medication regimen simplification during 16 PTPE sessions attended by staff from 120 facilities. QM

pharmacists also made 25 visits to 21 distinct facilities to assess the medication regimens of 84 residents for this purpose.

3.10.3. Polypharmacy

The proportion of residents receiving nine or more medications in the preceding seven days, counting both routine and as-needed medications, is a CHSRA QI. For as-needed medications, only those that a resident has actually taken during the most recent seven-day period are counted.

Because facilities may maintain separate medication administration records for medications routinely scheduled, those given *as needed*, and medications that are applied to the skin or inhaled, the medication review processes can under-report medications actually given if each record is not retrieved. The 2005 LTCQR medication review process compared medication administration records (MAR) to consolidated physician's orders in order to guard against under-reporting. The quality measures reported in Table 3.16 are based on the medication records of the 1,770 residents in the LTCQR sample who were 65 years and older.

Table 3.16 Quality Measures for Polypharmacy

Residents ≥ age 65	2002 (95% CI)	2003 (95% CI)	2004 (95% CI)	2005 (95% CI)
1. Proportion of residents on nine or more *routinely scheduled* and *as-needed* medications	49.2% (46.9-51.6)	54.5% (52.1-56.9)	62.4% (60.1-64.8)	69.0% (66.8-71.2)
2. Average number of medications (*routine* and *as-needed)* per resident	8.8 (8.6-9.0)	9.5 (9.3-9.7)	10.1 (9.9-10.3)	11.4 (11.1-11.6)
3. Average number of *active ingredients* per resident	9.9 (9.7-10.2)	10.3 (10.1-10.6)	11.3 (11.0-11.5)	12.2 (11.9-12.4)

While statistically significant, some of the increase in all three measures may be due to the improved accounting of as-needed medications in the 2005 LTCQR process. However, because the statewide CHSRA QI for the use of nine or more drugs (see QI 16 in Table 4.1) has been increasing each year, it seems likely that a large portion of the observed increase in each measure is due to an actual increase in the number of medications that residents are receiving.

3.10.4. Beers List of Medications

The Beers List consists of 48 medications or medication classes that should generally be avoided in persons 65 years or older because they are either ineffective, pose

unnecessarily high risks or because safer alternatives are available (Fick et al., 2003). These medications can contribute to worsening health status among persons who take them (Fu et al., 2004).

Table 3.17 shows the prevalence of LTC residents, 65 years and older, receiving at least one Beers List medication. A separate measure for propoxyphene, a Beers List medication, is also shown because in 2004, QM quality consultants (nurses and pharmacists) began providing technical assistance to discourage its use (see Table 3.5) in the management of pain.

Table 3.17 Use of Beer's List of Medications

Medication Safety Measures	2002	2003	2004	2005
1. Proportion of residents receiving at least one Beers List medication	11.5%	13.8%	20.3% (18.3-22.2)	20.8% (18.9-22.7)
2. Proportion of residents receiving propoxyphene	7.0%	7.0%	7.9%* (6.7-9.3)	4.9% (3.8-5.9)

* This figure was reported erroneously as 2.4% in the 2004 LTCQR report.

About 21% of older LTC residents take medications that have poor safety profiles and five of these medications (amiodarone, biscodyl, ferrous sulfate, fluoxetine, and propoxyphene) account for 43% of all such prescriptions in the 2005 LTCQR sample. The statistically significant reduction in propoxyphene orders for residents 65 and over only occurred after QM program technical assistance for this issue began in 2004. The previous prescribing trend, in the absence of intervention, had been flat to slightly increasing.

3.10.5. Drug Interactions

Some combinations of medications can be hazardous because they interact in a manner that yields undesirable effects. Preventing serious adverse drug events that result from the use of hazardous medication combinations represents an opportunity to improve the quality of care for nursing facility residents (AMDA and ASCP, 2002).

The 2005 LTCQR focuses on ten high-risk medication combinations that are associated with adverse resident outcomes including hospitalization and death. These Top Ten Dangerous Drug Interactions in LTC were published in 2002 by a multidisciplinary group convened by the American Medical Directors Association and the American Society of Consultant Pharmacists (AMDA and ASCP, 2002). The estimates in Table 3.18 were based on the overall sample (i.e., for 2004, N=1990; and for 2005, N=2003).

Table 3.18 Drug Interactions

Medication Safety Measure	2004	2005
1. Proportion of residents whose medication regimen includes a Top Ten interaction	11.2% (9.7-12.6)	11.8% (10.3-13.2)
2. Proportion of residents on ACE-inhibitors and potassium supplement	7.9% (6.7-9.2)	8.4% (7.1-9.6)
3. Proportion of residents on ACE-inhibitors and spironolactone	0.7% (0.3-1.0)	0.8% (0.4-1.2)
4. Proportion of residents on digoxin and amiodarone	0.4% (0.1-0.7)	0.3% (0.1-0.5)
5. Proportion of residents on digoxin and verapamil	0.1% (0.0-0.2)	0.2% (0.0-0.5)
6. Proportion of residents on theophylline and quinolone antibiotics	0.1% (0.0-0.2)	0.1% (0.0-0.3)
7. Proportion of residents on warfarin and macrolide antibiotics	0.1% (0.0-0.2)	0.1% (0.0-0.2)
8. Proportion of residents on warfarin and NSAID analgesics	1.4% (0.9-1.9)	1.3% (0.8-1.8)
9. Proportion of residents on warfarin and phenytoin	0.8% (0.4-1.2)	0.6% (0.3-0.9)
10. Proportion of residents on warfarin and quinolone antibiotics	0.2% (0.0-0.4)	0.5% (0.2-0.9)
11. Proportion of residents on warfarin and sulfa antibiotics	0.2% (0.0-0.4)	0.1% (0.0-0.2)

There has been no significant change in the prevalence of each of the ten most hazardous drug combinations. Of the residents represented in measure two for 2005, 92% were on concomitant thiazide or loop diuretic therapy that would typically mitigate the risk (a dangerously high level of potassium). Thus, at most ~4% of all residents were on hazardous drug combinations in the absence of mitigation.

3.10.6. Conclusions

The majority of Texas nursing facility residents takes complex medication regimens. The majority takes nine or more medications, and about 21% of older LTC residents are given at least one medication that has a poor safety profile. The occurrence of the ten most hazardous drug combinations is relatively uncommon, and the majority involves a single interaction (ACE-inhibitors and potassium) that is most often mitigated by diuretic medications in the resident's medication program.

That the department's technical assistance interventions have had visible impact only in decreasing the use of propoxyphene most likely reflects the small size of the QM pharmacist workforce. The decreased use of propoxyphene, reflects the efforts of not only the QM pharmacist consultant workforce but also a much larger QM nurse consultant workforce. The challenges of altering prescribing patterns are that the locus

of control for prescribing decisions is physicians rather than nursing facility staff, that there is very little decision support for prescribing decisions (e.g., checks and balances either at the point of medication ordering, the drug-benefit program, or the dispensing pharmacy), and that pharmaceutical marketing is both well-funded and effective.

Medication-related safety in LTC might improve with the use of electronic medical records, computerized physician order entry, and automated clinical decision support software (Kaushal and Bates, 2001). However, these technologies are distinctly uncommon in Texas LTC facilities, and the additional work burdens they impose on physicians undermine their value in improving care (Cortés and Chou, 2004; Poissant et al., 2005).

3.11. Consumer Satisfaction with Nursing Facility Services

3.11.1. Overview

The goal of measuring consumer satisfaction in the LTCQR process is to address some aspects of quality of life that are not otherwise captured through the assessment of either resident function or facility care processes. The consumer satisfaction survey of the LTCQR resident assessment instrument was designed in 2000, and there has been subsequent national work on nursing home resident quality of life. The draft version Section F of the draft MDS 3.0 RAI contains quality of life items (Kane, 2003). This newer MDS instrument has some items that address quality of life domains that are also addressed in the LTCQR satisfaction survey. In addition, the proposed Section F includes items that address personal privacy, sense of safety and security, and choices. These additional domains are not addressed in the LTCQR satisfaction survey.

The LTCQR addresses fourteen resident and family satisfaction issues. Two of these, the use of physical restraints and satisfaction with the provider's compliance with the resident's end-of-life wishes, have been added in the last four years. Their purpose is to help the department understand whether changes in quality of care affect consumer satisfaction. LCQR consumer satisfaction survey responses are always obtained from the resident unless the resident is unable to respond.

3.11.2. Findings

The majority of the resident assessments (81%) had consumer satisfaction responses. The respondents were 1,271 residents and 349 resident representatives (a family member or guardian). In the remaining 385 assessments, the resident was unable to respond and there was no resident representative available to respond to the survey. Forty-eight residents required a translator to respond to the survey.

Table 3.19 shows the statewide satisfaction score and the number of responses on which each score was based for each item in the consumer satisfaction surveys of 2000

through 2004. Table 3.20 shows the proportion of residents who were either Satisfied or Very satisfied with each of the issues addressed in the survey.

Table 3.19 Statewide Consumer Satisfaction Scores

Item	Issue	Item Average (Number of Responses)					
		2000	2001	2002	2003	2004	2005
12.3	Food service	**5.36** (1423)	**5.45** (1487)	**5.57** (1480)	**5.58** (1511)	**5.43** (1527)	**5.46** (1563)
12.4	Use of physical restraints	-	-	**5.46** (412)	**5.43** (679)	**5.76** (798)	**5.91** (531)
12.5	Provision of enjoyable activities	**5.61** (1164)	**5.81** (962)	**5.68** (1259)	**5.66** (1360)	**5.59** (1372)	**5.63** (1417)
12.6	Maintenance of physical activity	**5.50** (1169)	**5.74** (953)	**5.61** (1252)	**5.62** (1346)	**5.48** (1364)	**5.52** (1442)
12.7	Maintenance of mental alertness	**5.49** (1331)	**5.63** (1268)	**5.73** (1260)	**5.68** (1350)	**5.53** (1349)	**5.57** (1421)
12.8	Meeting emotional needs	**5.57** (1366)	**5.76** (1439)	**5.89** (1454)	**5.86** (1458)	**5.50** (1476)	**5.60** (1513)
12.9	Meeting spiritual needs	**5.69** (1365)	**5.87** (1354)	**5.99** (1358)	**5.88** (1377)	**5.72** (1439)	**5.82** (1525)
12.10	Response to requests for assistance	**5.39** (1386)	**5.62** (1471)	**5.57** (1468)	**5.65** (1419)	**5.32** (1478)	**5.42** (1555)
12.11	Avoiding chemical restraints	**5.67** (1269)	**5.73** (1243)	**5.84** (1050)	**5.66** (1093)	**5.81** (1075)	**5.91** (1079)
12.12	Avoiding undesirable medication effects	**5.70** (1286)	**5.97** (1355)	**6.03** (1355)	**5.86** (1262)	**5.77** (1219)	**5.83** (1448)
12.13	Meeting toileting needs	**5.53** (1385)	**5.67** (1499)	**5.77** (1423)	**5.84** (1348)	**5.60** (1434)	**5.67** (1450)
12.14	Meeting social needs	**5.77** (1379)	**5.89** (1418)	**6.13** (1450)	**5.92** (1450)	**5.89** (1477)	**6.02** (1580)
12.15	Complying with end-of-life wishes	-	-	-	-	**5.95** (1183)	**5.84** (1420)
12.16	Overall satisfaction	**5.80** (1457)	**5.89** (1528)	**5.89** (1524)	**5.97** (1487)	**5.85** (1556)	**5.87** (1612)

All items show that consumers are somewhat satisfied with the services provided. From 2003 to 2004, all but two items showed a decrease in statewide consumer satisfaction scores; overall satisfaction declined 12% during this period. In 2005, some of this decline was reversed with an improvement in overall satisfaction to a level only 2% below the 2003 level of overall satisfaction. The only item in which consumer satisfaction declined was the item for complying with end-of-life wishes.

Table 3.20 Proportion of Consumers Satisfied or Very Satisfied

Item	Issue	% Satisfied or Very Satisfied					
		2000	2001	2002	2003	2004	2005
12.3	Food service	65%	64%	71%	69%	64%	65%
12.4	Use of physical restraints	-	-	65%	62%	77%	81%
12.5	Provision of enjoyable activities	75%	82%	74%	72%	69%	70%
12.6	Maintenance of physical activity	72%	82%	75%	73%	64%	67%
12.7	Maintenance of mental alertness	70%	73%	76%	74%	65%	69%
12.8	Meeting emotional needs	74%	80%	83%	81%	65%	71%
12.9	Meeting spiritual needs	77%	83%	86%	82%	74%	79%
12.10	Response to requests for assistance	67%	75%	73%	74%	60%	65%
12.11	Avoiding chemical restraints	78%	80%	84%	74%	80%	86%
12.12	Avoiding undesirable medication effects	81%	92%	93%	84%	78%	79%
12.13	Meeting toileting needs	73%	77%	79%	82%	71%	74%
12.14	Meeting social needs	81%	84%	90%	85%	80%	85%
12.15	Complying with end-of-life wishes	-	-	-	-	81%	80%
12.16	Overall satisfaction	79%	81%	80%	83%	74%	77%

The only two items that showed continuous improvement in consumer satisfaction from 2003 to 2005 were those relating to the avoidance of physical and chemical restraints. While SB 1839 quality monitoring efforts have focused on both of these clinical issues, the objective evidence is that only the misuse of physical restraints has been reduced. Thus, improvement in consumers' satisfaction with the avoidance of chemical restraints reflects something other than actual reduction in the use of psychoactive medications.

3.11.3. Conclusions

From 2004 to 2005, there was some reversal of the declines in satisfaction seen from 2003 to 2004. In subsequent LTCQR cycles, it may be desirable to include some or all of the proposed quality of life items from the draft MDS 3.0 in order to have an independent means of validating statewide self-reported quality of life based on MDS assessments.

4. Statewide Quality Indicator Values 2002-2005

4.1. Overview of Quality Indicators

Table 4.1 Statewide QI Values*

Indicator	Description	2002 Value	2003 Value	2004 Value	2005 Value
QI 1	Incidence of New Fractures	1.41%	1.27%	1.28%	1.34%
QI 2	Falls	10.75%	10.76%	10.68%	10.97%
QI 3Hi	Behavioral Symptoms - High Risk	20.06%	18.94%	18.23%	17.56%
QI 3Lo	Behavioral Symptoms - Low Risk	6.87%	6.14%	6.06%	5.38%
QI 3	Behavioral Symptoms - Overall	16.93%	15.95%	15.40%	14.81%
QI 4	Symptoms of Depression	6.72%	6.28%	6.05%	5.96%
QI 5	Depression and No Medication	3.21%	2.93%	2.57%	2.46%
QI6	Use of 9 or more Medications	50.58%	54.19%	58.04%	61.50%
QI 7	New Onset Cognitive Impairment	11.66%	11.04%	11.25%	11.49%
QI 8Hi	Incontinence - High Risk	94.09%	93.96%	93.63%	93.62%
QI 8Lo	Incontinence - Low Risk	43.84%	43.68%	44.54%	44.76%
QI 8	Incontinence - Overall	58.53%	57.76%	57.73%	57.50%
QI9	Incontinence and No Toileting	75.95%	69.09%	66.94%	62.75%
QI10	Indwelling Catheter	7.86%	7.07%	6.89%	6.85%
QI 11	Fecal Impaction	0.17%	0.14%	0.11%	0.09%
QI 12	Urinary Tract Infection	7.35%	7.40%	7.41%	7.46%
QI 13	Weight Loss	10.34%	9.64%	9.14%	9.47%
QI 14	Tube Feeding	8.90%	8.66%	8.62%	8.50%
QI 15	Dehydration	0.42%	0.39%	0.31%	0.29%
QI 16	Prevalence of Bedfast Residents	8.50%	7.80%	7.10%	6.68%
QI 17	Decline in Activities of Daily Living (ADLs)	16.58%	16.06%	16.08%	16.25%
QI 18	Decline in ROM	6.98%	6.45%	5.88%	6.23%
QI19Hi	Antipsychotic Use - High Risk	48.63%	50.06%	49.28%	48.01%
QI19Lo	Antipsychotic Use - Low Risk	20.89%	22.00%	21.70%	21.02%
QI19	Antipsychotic Use - Overall	24.65%	25.51%	24.97%	24.08%
QI 20	Anti-anxiety/Hypnotic Use	20.49%	20.57%	20.75%	21.11%
QI 21	Hypnotics Use > 2 days	5.52%	5.92%	6.13%	6.51%
QI22	Physical Restraints	18.98%	13.87%	8.72%	6.64%
QI 23	Little or No Daily Activity	16.74%	13.55%	11.09%	9.18%
QI 24Hi	Pressure Ulcers - High Risk	14.30%	14.07%	13.43%	13.41%
QI 24Lo	Pressure Ulcers - Low Risk	2.27%	2.41%	2.08%	2.11%
QI 24	Pressure Ulcers - Overall	8.79%	8.68%	8.20%	8.24%

* The QIs represent statewide population prevalence or incidence calculated from MDS assessments submitted during an interval from January 1 to April 30 each year. The highlighting identifies the QI issues for which the QM program provides technical assistance.

4.2. MDS QIs versus LTCQR Findings

Prior LTCQR cycles have demonstrated that certain MDS items, particularly those that represent straightforward observations (e.g., the presence or absence of coma or an indwelling bladder catheter), are highly reliable. Conversely, the LTCQR has shown that MDS items that require greater technical knowledge, complex observations, synthesis of information or clinical judgments (e.g., classifying medications or staging of pressure ulcers) are less likely to agree with the observations of third parties such as the LTCQR nurse and pharmacist reviewers.

This LTCQR does not revisit these issues except to compare the reliability of LTCQR reviewer determination of the presence of a feeding tube with the corresponding MDS-based QI. This single MDS item is addressed because artificial nutrition and hydration is a new topic in the 2005 LTCQR and because it is important to establish whether the CHSRA QI for feeding tubes is a reliable proxy for either the presence or appropriateness of tube feeding or both.

The CHSRA QI for tube feeding shows a high degree of agreement with LTCQR observations. Comparing each resident's most recent MDS assessment to the LTCQR assessment shows that the MDS has 97% sensitivity and 99% specificity for the presence or absence of a feeding tube. When limiting the comparison to residents who had an MDS assessment no more than 14 days prior to the LTCQR assessment, MDS and LTCQR assessments match 100%. This degree of agreement is very similar to that observed regarding the presence or absence of a bladder catheter; both determinations are straightforward observations that are reported reliably. Thus, QI 14 reports a statewide prevalence for tube feeding of 8.6% whereas the LTCQR observed prevalence is 8.1% (95% CI 6.9-9.3).

Because the care of 98% of LTCQR sample residents receiving tube feedings shows one or more quality problems (see Table 3.10), the simple prevalence of tube feeding serves as an effective indicator of quality. If, in coming years, there is substantial improvement in appropriateness of clinical justifications for tube feeding, the quality of advance care planning, and the quality of the informed consent process for tube feeding, then the prevalence alone will reveal little about the quality of care.

4.3. Quality Indicators for LTCQR and Quality Outreach Focus Areas

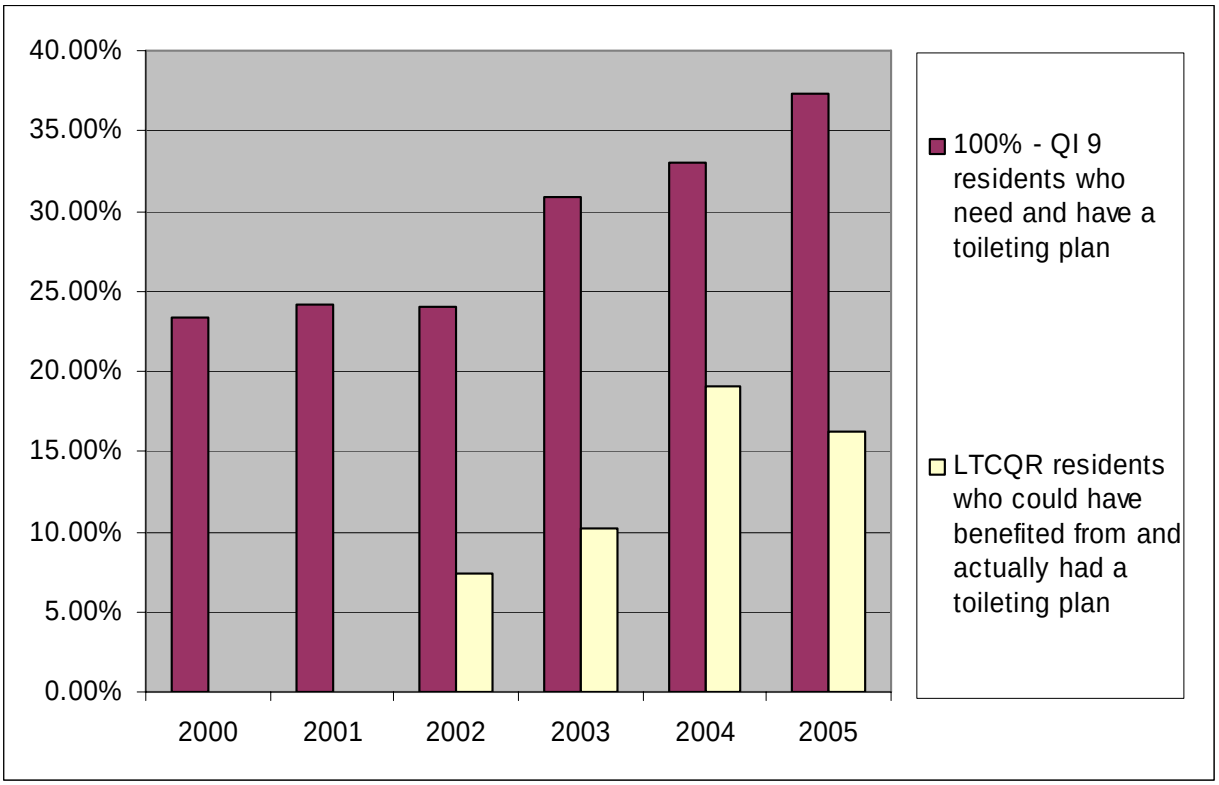
4.3.1. QI 9 Prevalence of Urinary Incontinence without a Toileting Plan

The CHSRA MDS-based quality indicator for incontinence without a toileting plan (QI 9) most closely resembles the LTCQR measure for residents who could have benefited from and actually had toileting plans (see Table 3.1 item 4). In Figure 4.1, the statewide value of QI 9 (Incontinence without a toileting plan) is expressed as its complement

(100% - QI 9) in order to depict the prevalence of toileting plans among residents who need them (according to the definition for QI 9).

Figure 4.1 depicts improvement in the use of continence promotion interventions (higher is better), as measured by the LTCQR process. The observed improvement from 2002 to 2004 parallels the improvement in the complement of QI 9. The 2005 value suggests that either the initial improvement may not be sustainable or that continence promotion is appropriately abandoned after an initial trial proves unsuccessful.

Figure 4.1 QI 9 vs. LTCQR Measure for Urinary Incontinence

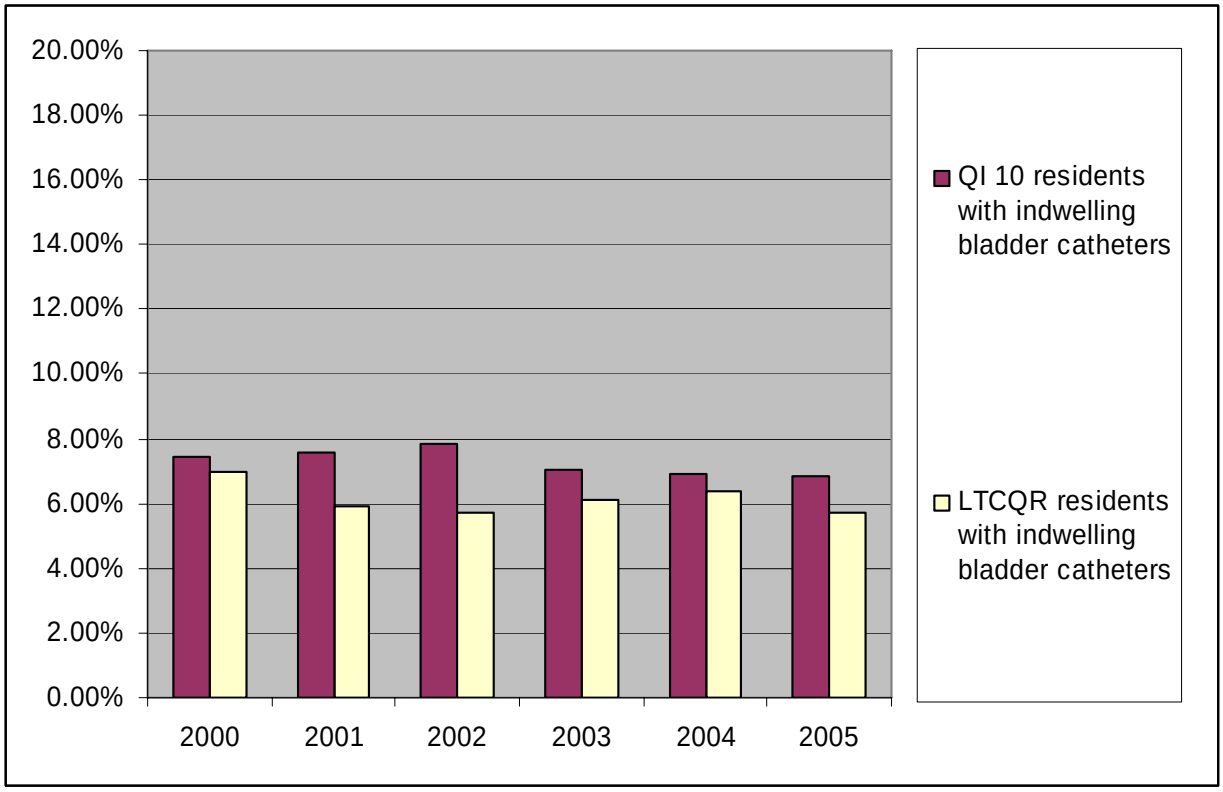


The observed improvement in QI 9 is clearly related to the onset of quality monitoring visits beginning in 2002 after two years of little or no change in QI 9. However, what is not revealed by either QI 9 or the LTCQR measure is the lack of effectiveness of continence promotion as it is implemented today (see Table 3.1. quality measure 7).

4.3.2. QI 10 Prevalence of Indwelling Bladder Catheters

QI 10 is the prevalence of indwelling bladder catheters. The LTCQR measure that corresponds to QI 10 is the LTCQR prevalence for indwelling catheters (see Table 3.2 quality measure 1).

Figure 4.2 QI 10 vs. LTCQR Measure for Indwelling Bladder Catheters

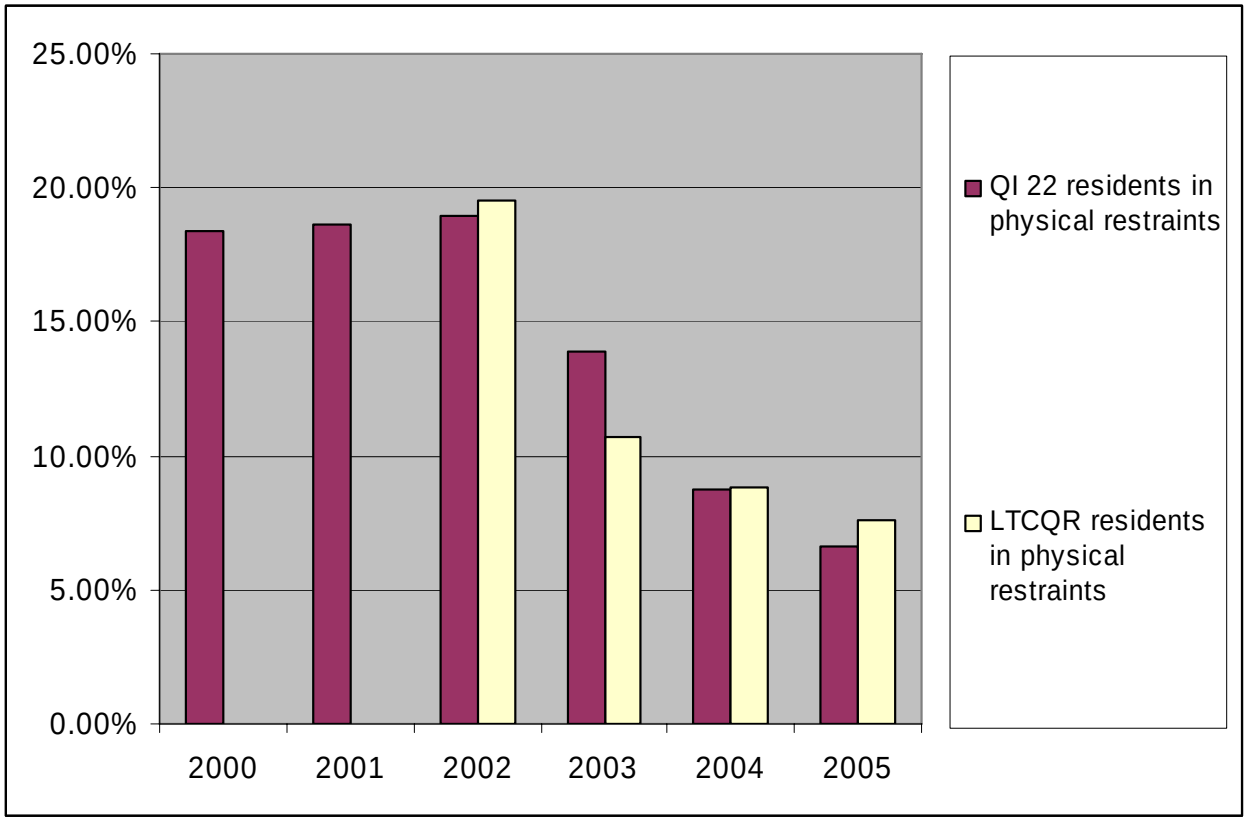


Because the prevalence of bladder catheter use currently reported by CMS is 5% in Texas and 6% nationally (CMS Nursing Home Compare, October 2005), it seems likely that the clinical indications for catheter use in Texas LTC follow national norms.

4.3.3. QI 22 Prevalence of Physical Restraint Use

QI 22 is the prevalence of daily restraint use (compare to Table 3.3 quality measure 1). The decline in QI 22 began when the QM program started in April 2002. While others have also contributed to the successful adoption of restraint-free care, the majority of restraint reduction is attributable to the impact of the QM technical assistance intervention for restraint reduction (Cortés, 2004). Additionally, the program's 2005 technical assistance interventions for fall risk management have probably hastened the reduction in the use of physical restraints.

Figure 4.3 QI 22 vs. LTCQR Measure for Physical Restraint Use

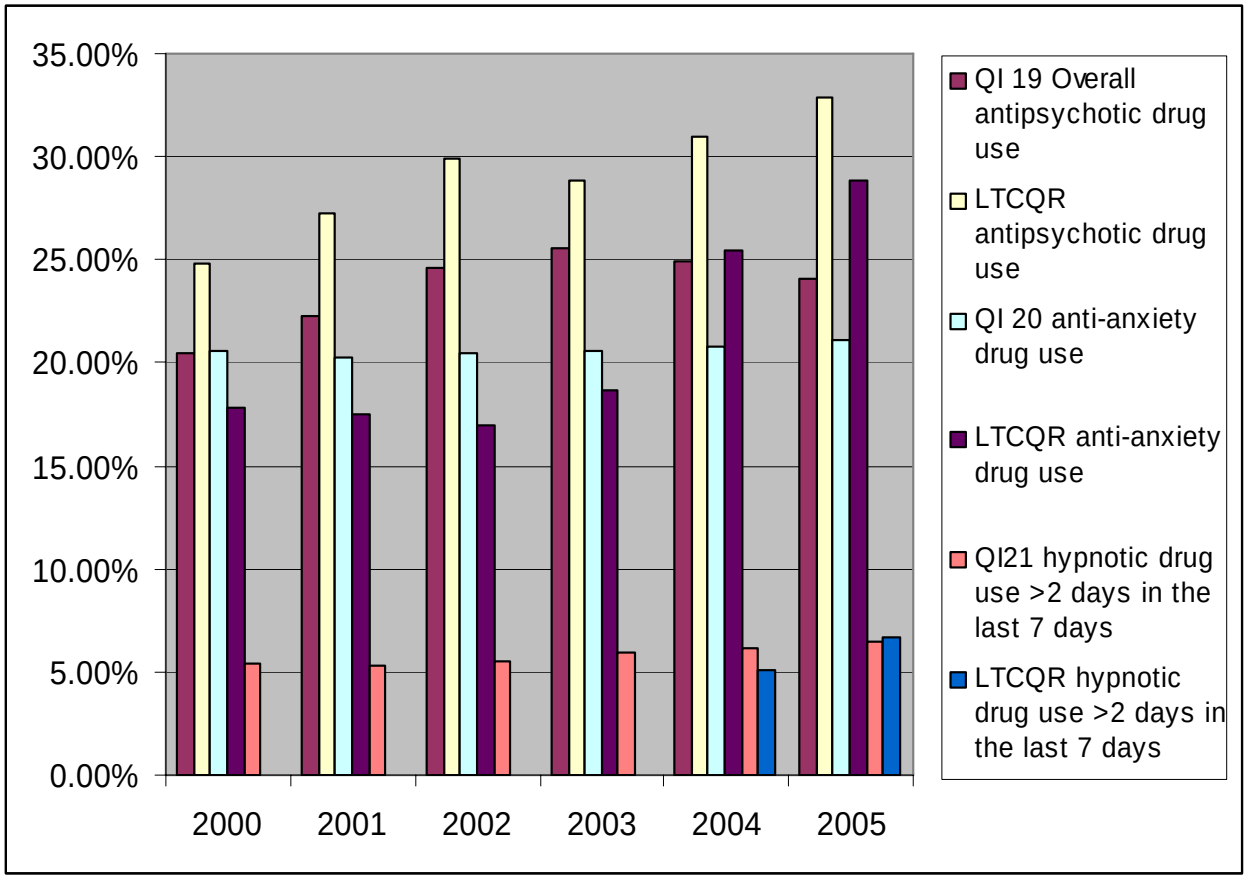


As of October 2005, Texas had achieved a restraint use prevalence of 6% and the national prevalence was 7% (CMS Nursing Home Compare, October 2005).

4.3.4. QI 19-21 Psychotropic Medication Use

The quality indicators for antipsychotic use (QI 19 Overall), anti-anxiety/hypnotic use (QI 20) and hypnotic use for more than two of the last seven days (QI 21) are similar to the LTCQR prevalence figures for these psychoactive medications (see Table 3.11). Figure 4.4 shows the yearly values for these quality indicators and their corresponding LTCQR measures.

Figure 4.4 QI 19-21 vs. LTCQR Measures for Psychotropic Drug Use



The following notes are relevant to the interpretation of this figure:

- QI 19 is generally lower than the LTCQR measure partly because QI 19 excludes residents who have a psychosis or related conditions whereas the corresponding LTCQR prevalence does not. A significant fraction of all antipsychotics given in LTC facilities are for behavioral symptoms rather than for actual psychoses.

- QI 20 has remained constant for several years whereas the corresponding LTCQR measure has increased monotonically. This may be the result of MDS under-reporting of anti-anxiety drug use, including *as needed* use.

- QI 21 is consistent with the observed prevalence of hypnotic use in the 2004 and 2005 LTC quality reviews.

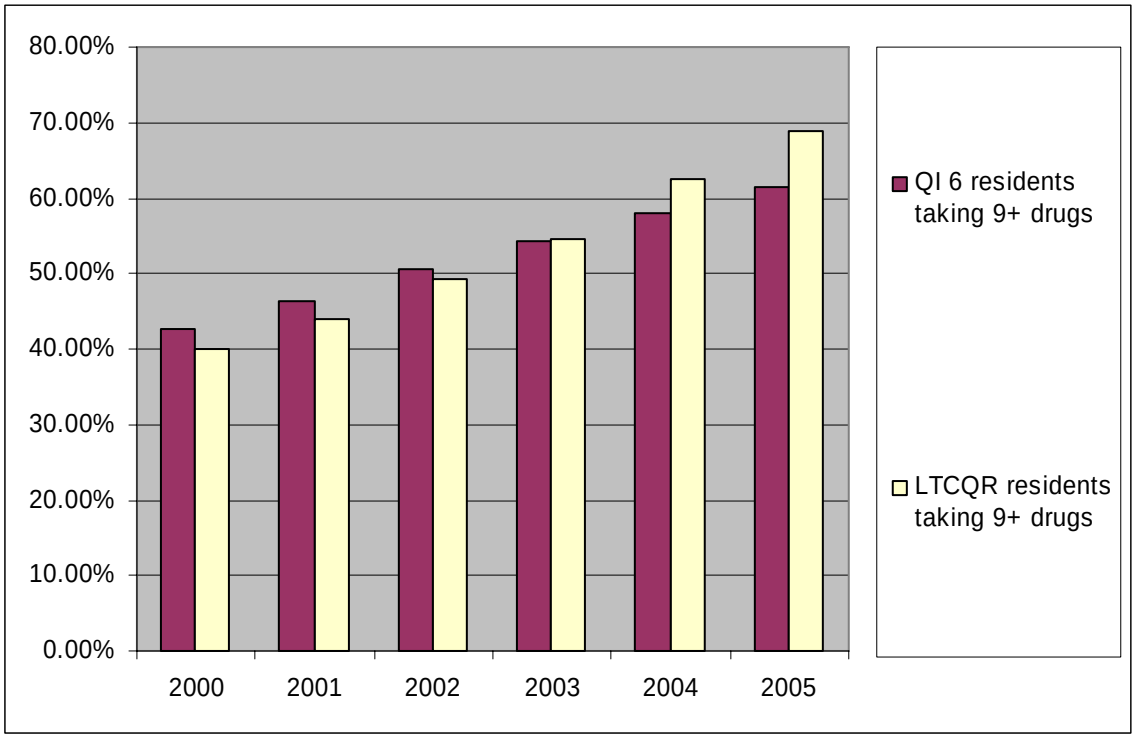
From 2000 to 2005, there has been no visible QM program effect, and that is expected given the small number of QM pharmacist staff and their focus on facility operations rather than physicians' prescribing practices. In 2006, QM pharmacists'

academic detailing visits to medical directors' offices will address some of these prescribing issues.

4.3.5. QI 6 Prevalence of Nine or More Medications

QI 6 is the MDS-based QI for polypharmacy; it depicts the proportion of residents taking nine of more medications in the preceding seven days. The corresponding LTCQR quality measure (see Table 3.16 quality measure 1) is based on the same definition. Both the QI and LTCQR measure show a trend of increasing medication use.

Figure 4.5 QI 6 vs. LTCQR Measure for Nine or More Drugs



4.4. Conclusions

Changes in the MDS QIs are consistent with the improvements in continence promotion and reduction in the use of physical restraints measured by the LTCQR process. The prevalence of indwelling bladder catheters depicted by the MDS QI is consistent with the prevalence measured by the LTCQR. The absence of improvement in the medication use QIs as well as in the LTCQR measures for the use of psychoactive medications and total number of medications prescribed to residents reflects the small number of QM program pharmacist consultants.

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Appendix A: LTCQR Resident Assessment Instrument

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Department of Aging and Disability Services

Nursing Facility Performance Monitoring Data Instrument

Instructions: CHOOSE ONLY ONE ANSWER FOR EACH QUESTION that offers a choice of responses. Questions marked with an asterisk (*) MUST be answered. Please print clearly.

Part 1. Identifying Information

1.1* Date of Assessment ___ ___/___ ___/___ ___ ___ ___

1.2* Facility's Texas Vendor Number _____

1.3* Quality Review Nurse's Identifier Number ___ ___ ___ ___

1.4* Resident's DADSID _____

1.5* Resident's Name _____ ___ _____
First Name **MI** **Last Name**

1.6* Primary Physician's Name _____ ___ _____
First Name **MI** **Last Name**

1.7* Primary Physician's Texas Medical License Number _____

1.8* Does the resident's care plan state that the plan is a palliative plan of care?

O [1] Yes O [2] No

1.9* How long has the resident resided in this facility?

O [1] 0-3 months O [2] 3-6 months O [3] 6-9 months
O [4] 9-12 months O [5] 1-2 years O [6] more than 2 years

NOTE:

For all questions in Parts 2 through 11, 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

Questions 2.1 through 2.7 MUST BE ANSWERED. Questions 2.8 through 2.11 MUST BE ANSWERED when the answer to 2.7 is NO.

NOTE: Perform a continence check **(ITEM 2.1)** and restraint check **(ITEM 4.1)** on every resident in the sample prior to collecting the remaining data items for any resident.

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

O [1] Yes O [2] No

2.2* Is the resident <u>unresponsive</u> (usual baseline level of responsiveness is comatose, semi-comatose, stuporous, persistent vegetative state, unarousable, etc.)? (This does NOT mean, "Is the resident cognitively impaired." One can be very impaired and still not be unresponsive.)

O [1] Yes O [2] No

2.3* In your professional opinion, does this resident require a mechanical lift or 2-person assistance to get out of bed?

O [1] Yes O [2] No

2.4* Is the resident unable to ambulate or sit for ANY routine daily activity due to pain?

O [1] Yes O [2] No

2.5* Does the resident have a terminal condition or palliative plan of care that precludes toileting?

O [1] Yes O [2] No

2.6* Is a toileting plan (prompted voiding, scheduled voiding or bladder retraining) specifically documented as part of the resident's care plan?

O [1] Yes O [2] No

2.7* Is the resident ALWAYS continent *without needing* a toileting plan, incontinence products or a catheter?

O [1] Yes O [2] No

---------- If item 2.7 is answered YES, then skip to Part 3 ----------

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

O [1] Yes O [2] No

2.9 Have <u>any</u> of these episodes occurred during normal waking hours?

O [1] Yes O [2] No

2.10 Are there active, Stage III or IV pressure sores involving the sacrum, trochanters or buttocks? (Those pressure sores that due to LOCATION would prevent toileting, bedpan use, and bedside commode use.)

O [1] Yes O [2] No

2.11 Does the resident refuse to use the toilet and all toileting devices (e.g. BSC, urinal, bedpan)**?**

O [1] Yes O [2] No

Part 3. Use of Indwelling Bladder Catheter

Question 3.1 MUST BE ANSWERED. Questions 3.2 through 3.9 MUST BE ANSWERED when the answer to 3.1 is YES.

3.1* Does the resident have an indwelling bladder catheter?

O [1] Yes O [2] No

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

3.2 Has the resident had a catheter longer than 6 weeks?

O [1] Yes O [2] No

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

O [1] Yes O [2] No

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

O [1] Yes O [2] No

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

O [1] Yes O [2] No

3.6 Was the resident admitted or transferred into the facility within the last 6 weeks?

O [1] Yes O [2] No

3.7 Does this resident have a MEDICAL DIAGNOSIS of obstructive uropathy, bladder outlet obstruction, hydronephrosis, detrusor areflexia, detrusor hypo- or hyperreflexia, detrusor-sphincter dyssynergia, vesicoureteral reflux, or infravesicle 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 3.7.)

O [1] Yes O [2] No

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

O [1] Yes O [2] No

3.9 Does the resident have active, Stage III or IV pressure sores that would be vulnerable to urinary moisture? (Count pressure sores regardless of location if urine would contaminate the sores, e.g. fetal position.)

O [1] Yes O [2] No

Part 4. Use of Restraints

Questions 4.1 through 4.3 MUST BE ANSWERED.

4.1* Did you observe the resident to be restrained by limb, waist or trunk restraints?

O [1] Yes O [2] No

4.2* On how many days during the last 7 days were restraints applied?

O [1] O [2] O [3] O [4] O [5] O [6] O [7]

4.3* On those days that restraints were applied, what was the average time that the resident spent in restraints? (Note: *Not documented* means that you are absolutely sure that there is nothing written in the chart that tells you the number of hours the resident was in restraints.)

O [1] Less than 2 hours O [2] 2-4 hours O [3] 4 to 6 hours
O [4] 6 to 8 hours O [5] 8 hours or more O [6] Not documented

Part 5. Pain Assessment

All questions in this section MUST BE ANSWERED.

5.1* What is the resident's current level of pain? Perform the assessment with the Wong-Baker tool provided. (Note: *Unable to determine* means that you cannot determine the resident's level of pain because the resident cannot tell you.)

O [1] no pain O [2] mild O [3] moderate
O [4] severe O [5] very severe O [6] worst O [7] Unable to determine

5.2* According to the last 7 days of documentation in the clinical records, what has the resident'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.)

O [1] no pain O [2] mild O [3] moderate
O [4] severe O [5] very severe O [6] worst O [7] Unable to determine

5.3* Is an observational pain assessment tool (e.g., PAINAD, ADD, or Abbey Pain Scale) being used to assess the resident's pain?

O [1] Yes O [2] No

5.4* Is the same assessment tool (used for 5.3) used every time the resident is assessed for pain? (Answer this item NA if 5.3 is answered NO.)

O [1] Yes O [2] No O [8] Not Applicable

5.5* Is a <u>validated</u> self-report pain assessment tool used to assess the resident's pain? (e.g., Wong-Baker Scale, Pain thermometer, a six-step verbal description scale or a numeric 0-10 rating scale)

O [1] Yes O [2] No

5.6* Is the same assessment tool (used for 5.5) used every time the resident is assessed for pain? (Answer this item NA if 5.5 is answered NO.)

O [1] Yes O [2] No O [8] Not Applicable

5.7* Is the resident (or family) satisfied with the resident's level of pain relief during the last 24 hours? (Note: *Unable to determine* means that neither the resident nor family can tell you.)

O [1] Yes O [2] No O [3] Unable to determine

Part 6. Fall Risk Assessment

Questions 6.1 and 6.2 MUST BE ANSWERED. Question 6.3 MUST BE ANSWERED when the answer to 6.2 is YES.

6.1* Is there evidence that the resident was assessed for fall risks within 14 days of admission or within 14 days of the most recent FULL MDS assessment? (Use most recent event.)

O [1] Yes O [2] No

6.2* Is there evidence that the resident fell in the past 30 days AND was in the facility at some point in the subsequent 24 hours?

O [1] Yes O [2] No

---------- If item 6.2 is answered NO, then skip to Part 7 ----------

6.3 If the resident fell in the last 30 days, is there documentation that the resident was reassessed for fall risks within 24 hours after the fall?

O [1] Yes O [2] No O [3] Transferred to ER or Hospital

Part 7. Immunizations

All questions in this section MUST BE ANSWERED.

7.1* Is there <u>any</u> documentation that the resident has ever received polyvalent (including trivalent) Pneumococcal vaccine? (Any form of documentation is acceptable.)

O [1] Yes O [2] No

7.2* Is there <u>proper documentation</u> of the pneumococcal vaccine that the resident received? (Look for documentation of Pneumovax or Pneu-Immune. Documentation must be by the entity that actually gave it and must include date, name of vaccine, and signature. "Received at hospital," alone is not sufficient unless the document, such as a discharge summary, is from the hospital itself. The same applies to doctor's offices, clinics, etc)

O [1] Yes O [2] No

7.3* Is there <u>any</u> documentation that Influenza vaccine for the 2004 Influenza Season was given? (Any form of documentation is acceptable.)

O [1] Yes O [2] No

7.4* Is there <u>proper documentation</u> that Influenza vaccine for the 2004 Influenza Season was given? (Documentation must be by the entity that actually gave it and must include date, name of vaccine, and signature. "Received at hospital," alone is not sufficient unless the document, such as a discharge summary, is from the hospital itself. The same applies to doctor's offices, clinics, etc)

O [1] Yes O [2] No

7.5* In what month did the resident receive a 2004 Influenza Season Vaccine? (See documentation requirements in 7.1.)

O [1] Aug '04	O [2] Sep '04	O [3] Oct '04	O [4] Nov '04
O [5] Dec '04	O [6] Jan '05	O [7] Feb '05	O [8] Mar '05
O [9] Apr '05	O [9] May '05	O [10] Influenza Vaccine was <u>Not Given</u>	

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

O [1] Yes O [2] No

7.7* Is there documentation that the resident (or family) REFUSED the Influenza shot?

O [1] Yes O [2] No

Part 8. Advance Care Planning

Questions 8.1 through 8.3 MUST BE ANSWERED. Questions 8.4 and 8.5 MUST BE ANSWERED when the answer to 8.1 is YES.

8.1* After a careful search through the clinical record did you find any of the following ACP documents: Out of Hospital DNR (OOHDNR), Directive to Physicians, Durable Medical Power of Attorney, or care-limiting orders such as DNR, Do-not-intubate, Do-not-hospitalize?

O [1] Yes O [2] No

8.2* According to facility documents, when did the facility staff <u>first discuss</u> advance care planning with the resident or family?

O [1] Prior to admission
O [2] Within 21 days of admission
O [3] Within the first 90 days of admission
O [4] 90 or more days after admission
O [5] Advance Care Planning <u>has not been discussed</u> with the resident or family

8.3* Did the facility staff discuss advance care planning with the resident or family within the <u>21 days</u> after the most recent full MDS assessment?

O [1] Yes O [2] No

---------- If item 8.1 is answered NO, then skip to Part 9 ----------

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

O [1] Yes O [2] No

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

O [1] Yes O [2] No

Part 9. Tube Feeding

Question 9.1 MUST BE ANSWERED. Questions 9.2 through 9.6 MUST BE ANSWERED when the answer to 9.1 is YES.

9.1* Is the resident receiving tube feedings? (Includes NG tube, PEG, or other enteral tube)

O [1] Yes O [2] No

---------- If item 9.1 is answered NO, then skip to Part 10 ----------

9.2 Is the reason for tube feeding the occurrence of aspiration pneumonia or pressure sores in the context of late-stage dementia (non-verbal, non-ambulatory)?

O [1] Yes O [2] No

9.3 Does the resident 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?

O [1] Yes O [2] No

9.4 Is there evidence that the resident or resident's representative provided informed consent for tube feeding? (See the Guidance. More than a form is required.)

O [1] Yes O [2] No

9.5 Has tube feeding been provided for more than 30 days?

O [1] Yes O [2] No

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

O [1] Yes O [2] No O [8] Not Applicable

Part 10. 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 10.3 through 10.5 "If there is no valid anxiety diagnosis…" in the Guidance).

10.1* Is there documentation of a psychiatric consultation or a primary care visit that gives a diagnosis of generalized anxiety disorder, panic disorder, social anxiety disorder, agoraphobia, PTSD, or anxiety due to a medical illness that is not Dementia?

O [1] Yes O [2] No

10.2* Is there documentation of <u>one or more</u> anxiety symptoms characteristic of the disorder identified in 10.1?

O [1] Yes O [2] No

10.3* Is there documentation that the resident has been assessed for anxiety symptoms using a Beck Anxiety Inventory or Hamilton Anxiety Scale in the past 6 months?

O [1] Yes O [2] No

10.4* Does the care plan provide explicit, measurable goals for the treatment of anxiety?

O [1] Yes O [2] No

10.5* Is there documentation of ongoing anxiety symptom assessment (at least every 2 weeks) for the stated, measurable therapeutic goals of anti-anxiety therapy?

O [1] Yes O [2] No O [3] Not Applicable (i.e., no measurable goals)

Part 11. Use of Hypnotic Medications

All questions in this section MUST BE ANSWERED.

11.1* Has the resident complained of sleep problems within the last 14 days?

O [1] Yes O [2] No

11.2* Has the resident had a hospitalization, experienced a sudden loss of physical functioning or independence, experienced the death of a loved one, or had a significant change in personal environment in the last 14 days? (e.g., a change in personal environment can be new admission to the facility, loss of roommate, new roommate, or conflict with family)

O [1] Yes O [2] No

11.3* Do the last 14 days of MAR show an active prescription for sleep problems?

O [1] Yes O [2] No

11.4* Is there evidence that the resident has been evaluated for sleep hygiene including all of the following: diet history, daytime habits, sleeping habits, and sleeping environment? (Refer to the Guidance for examples.)

O [1] Yes O [2] No

11.5* Has the resident's sleep pattern been consistently monitored during the last 14 days?

O [1] Yes O [2] No

Part 12. Consumer Satisfaction

Question 12.1 MUST BE ANSWERED. If the resident is unable to answer, then a family member or guardian may answer. No other individual may answer for the resident. If ANY question from 12.2 to 12.16 is answered, then EVERY question in this section must be answered.

12.1* Who is answering this consumer satisfaction survey?

O[1] Resident O[2] Family member or Guardian O[3] Neither is able to answer

------- If question 12.1 is answered "Neither is able to answer", then STOP --------

12.2 Was a translator used for the Consumer Satisfaction survey?

O [1] Yes O [2] No

For items 12.3 through 12.16, use the following scale to choose the most appropriate response to the questions below.

1=Very Dissatisfied **2=Dissatisfied** **3=Somewhat Dissatisfied**
4=Neither **5=Somewhat Satisfied** **6=Satisfied**
7=Very Satisfied **8=Not applicable**

For the following questions, circle the number that best reflects your level of agreement to each statement.	Very Dissatisfied	Dissatisfied	Somewhat Dissatisfied	Neither	Somewhat Satisfied	Satisfied	Very Satisfied	Not Applicable
12.3 How satisfied are you (your family member) with the facility's food service? (e.g. providing foods that you like, served the way you prefer them, etc.)	1	2	3	4	5	6	7	8
12.4…the facility's use of restraints on you (your family member)? (Restraints are lap belts, chair trays and other devices that the resident cannot remove and that limit the resident's ability to move freely)	1	2	3	4	5	6	7	8
12.5... the facility's ability to provide activities that you (your family member) enjoy(s)? (e.g. recreational activities, arts and crafts, outings, events, pets, etc. that you used to do and enjoy)	1	2	3	4	5	6	7	8
12.6... the facility's ability to provide activities that keep you (your family member) as physically active as possible? (e.g. exercises, physical games, opportunities for walks, stretching, passive exercise including passive Range of Motion etc. appropriate to your needs)	1	2	3	4	5	6	7	8
12.7 How satisfied are you (your family member) with the facility's ability to provide activities that keep you (your family member) as mentally alert as possible? (e.g. puzzles, crossword puzzles, card and board games, bingo, reading, writing, discussion, drama, art, etc. appropriate to your needs)	1	2	3	4	5	6	7	8
12.8... the facility's ability to meet your (your family member's) emotional needs? (e.g. providing a supportive environment in which you can express your feelings, providing comfort or listening when you need it, or helping you to obtain family, social worker or other support when you need it)	1	2	3	4	5	6	7	8

For the following questions, circle the number that best reflects your level of agreement to each statement.	Very Dissatisfied	Dissatisfied	Somewhat Dissatisfied	Neither	Somewhat Satisfied	Satisfied	Very Satisfied	Not Applicable
12.9... the facility's ability to meet your (your family member's) spiritual needs? (e.g. respecting your religious practices, providing you with spiritual counseling or whatever spiritual support and comfort you are accustomed to having)	1	2	3	4	5	6	7	8
12.10... the facility's ability to respond to your (your family member's) requests for assistance? (e.g. answering call lights, getting help to the dining room, etc.)	1	2	3	4	5	6	7	8
12.11... the facility's ability to not use sleeping medicines or chemical restraints solely for the convenience of the staff? (e.g. not prescribing sleeping medicines, sedatives or behavior control drugs when the facility is short staffed or the staff is not adequately trained)	1	2	3	4	5	6	7	8
12.12... the facility's ability to assure that the doctor is not prescribing medicines for you (your family member) that are causing undesirable side effects? (e.g. discontinuing medicines when they cause dizziness, confusion, falls, and other problems)	1	2	3	4	5	6	7	8
12.13 How satisfied are you (your family member) with the facility's ability to provide toileting care that meets your (your family member's) needs? (e.g. assistance to the toilet, assistance with personal hygiene, not using diapers just because it is more convenient for the facility)	1	2	3	4	5	6	7	8
12.14... the facility's ability to meet your (your family member's) social needs? (e.g. having visitors come in to visit with you, helping residents sit next to one another so they can talk, etc.)	1	2	3	4	5	6	7	8
12.15... the facility's ability to comply with your (your family member's) wishes regarding end-of-life care? (e.g. avoiding unwanted procedures, hospitalization or other treatment that is not wanted)	1	2	3	4	5	6	7	8
12.16 Overall, how satisfied are you with your (your family member's) experience in this nursing facility?	1	2	3	4	5	6	7	8

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

QR Nurse Signature_____Date_____