

# R<sup>3</sup> Report | Requirement, Rationale, Reference

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Published for Joint Commission-accredited organizations and interested health care professionals, *R3 Report* provides the rationale and references that The Joint Commission employs in the development of new requirements. While the standards manuals also may provide a rationale, *R3 Report* goes into more depth, providing a rationale statement for each element of performance (EP). The references provide the evidence that supports the requirement. *R3 Report* may be reproduced if credited to The Joint Commission. Sign up for [email delivery](#).

## Pain assessment and management standards for nursing care centers

Effective July 1, 2019, new and revised pain assessment and management standards will be applicable to Joint Commission-accredited **nursing care centers**. These program-specific standards are a continuation of the initiative that resulted in new and revised pain assessment and management requirements for hospitals, ambulatory care organizations, critical access hospitals, and office-based surgery practices (see July 2017 *The Joint Commission Perspectives*, Pages 1, 3, and 4 and July 2018 *The Joint Commission Perspectives*, Pages 17–18). The program-tailored standards are designed to provide accreditation programs with contemporary guidance for pain assessment and management and strengthen organizations’ practices for pain assessment, treatment, education, and monitoring.

### Engagement with stakeholders, customers, and experts

In addition to an extensive literature review and public field review, The Joint Commission obtained expert guidance from the [following groups](#):

- **Technical Advisory Panel (TAP)** of practicing clinicians from various health care and academic organizations, professional associations, and the payor and health technology sectors.
- **Nursing Care Centers Expert Panel** consisting of professionals with clinical and leadership experience relating to pain management in the long-term care setting.
- **Standards Review Panel (SRP)** comprised of clinicians and administrators who provided a “boots on the ground” point of view and insights into the practical application of the proposed standards. Members of the nursing care center expert panel as well as additional representatives from organizations or professional associations participated.

The prepublication version of the pain assessment and management standards will be available online until the end of June 2019. On or after July 1, 2019, please access the new requirements in the E-dition.

### Leadership

**LD.01.06.01: A medical director oversees the care, treatment, and services provided to patients and residents.**

<b>Requirement</b>	LD.01.06.01, EP 16: The medical director is actively involved in pain assessment, pain management, and safe opioid prescribing through the following: - Developing and communicating medical care policies, procedures, and guidelines - Monitoring pain management and prescribing practices (See also PI.02.01.01, EP 19)
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<b>Rationale</b>	The long-term care setting is an expanding sector of health care, serving populations with diverse and complex pain management needs including post-acute, long-term care needs and recovery after an opioid-related hospitalization. Opioids are one of the leading causes of preventable adverse drug events in skilled nursing facilities. Inconsistent evaluation of pain treatment effectiveness, including opioid treatment, by prescribers has been identified as an issue by Joint Commission stakeholders and in current literature. This inconsistency in the quality of care calls for the medical director's oversight of pain management and responsible opioid prescribing.
<b>Reference*</b>	<p>Fine PG, et al. "<a href="#">Evaluation of the performance improvement CME paradigm for pain management in the long-term care setting.</a>" <i>Pain Medicine</i>. 2014;15(3): 403-409.</p> <p>Werner RM and Konetzka RT. "Trends in post-acute care use among Medicare beneficiaries: 2000 to 2015." <i>JAMA</i>. 2018;319(15): 1616-1617.</p> <p>Weiss AJ, et al. <a href="#">Opioid-related hospital stays and emergency department visits among patients aged 65 years and older, 2010 and 2015</a>. Statistical Brief #244. Baltimore, MD: Agency for Healthcare Research and Quality, September 2018.</p> <p><b>Resources:</b>  The Society For Post-Acute And Long-Term Care Medicine (AMDA). <a href="#">AMDA Quality Prescribing checklist for opioid analgesics</a>. Columbia, MD: AMDA, (no date).</p> <p>Centers for Medicare &amp; Medicaid Services (CMS). "<a href="#">Adverse Drug Event Trigger Tool.</a>" Baltimore, MD: CMS, webpage last modified Sept. 13, 2016.</p> <p>National Quality Partners™ Opioid Stewardship Action Team. National Quality Partners Playbook™: Opioid Stewardship. Washington, D.C.: National Quality Forum, March 2018.</p>

**LD.04.03.13: Pain assessment and pain management, including safe opioid prescribing, are identified as an organizational priority.**

<b>Requirement</b>	LD.04.03.13, EP 1: The organization has a leader or leadership team that is responsible for pain management and safe opioid prescribing, as well as developing and monitoring performance improvement activities. (See also PI.02.01.01, EP 19)
<b>Rationale</b>	While a large number of patients or residents in long-term care facilities experience pain, there are gaps in the quality of pain care in this setting. In addition, the evidence to support optimal pain management among patients and residents in long-term care facilities is limited. Solutions to these problems require coordination among nursing home administrators, nurse leaders, and physician leadership to promote quality initiatives and allocate resources for safe pain management.
<b>Reference*</b>	<p>Ersek M and Jablonski A. "A mixed-methods approach to investigating the adoption of evidence-based pain practices in nursing homes." <i>Journal of Gerontological Nursing</i>. 2014;40(7): 52-60.</p> <p>Knopp-Sihota JA, et al. "Interventions for the treatment of pain in nursing home residents: A systematic review and meta-analysis." <i>Journal of the American Medical Directors Association</i>. 2016;17(12): 1163.e19-e28.</p>

(cont.)

<p><b>Reference*</b></p>	<p><b>Resources:</b> Bakerjian D and Zisberg A. "Applying the advancing excellence in America's nursing homes circle of success to improving and sustaining quality." <i>Geriatric Nursing</i>. 2013; 34(5): 402-411.  <a href="http://GeriatricPain.org">GeriatricPain.org</a>. Iowa City, IA: The University of Iowa, 2018.</p>
<p><b>Requirement</b></p>	<p>LD.04.03.13, EP 2: The organization provides nonpharmacologic pain treatment modalities.</p>
<p><b>Rationale</b></p>	<p>Although specific evidence on the effectiveness of nonpharmacologic therapies in long-term care populations is still needed, existing evidence suggests that nonpharmacologic therapies can be effective in managing acute and chronic pain among older adults. Major professional organizations and experts recognize nonpharmacologic therapies as a component of pain management. The leadership team should work with clinician leaders to determine which nonpharmacologic therapies should be available.</p>
<p><b>Reference*</b></p>	<p>The Society For Post-Acute And Long-Term Care Medicine (AMDA). <a href="#">AMDA Quality Prescribing checklist for opioid analgesics</a>. Columbia, MD: AMDA, (no date).  Cino K. "Aromatherapy hand massage for older adults with chronic pain living in long-term care." <i>Journal of Holistic Nursing</i>. 2014;32(4): 304-313.  Cornelius R, et al. "Acute pain management in older adults." <i>Journal of Gerontological Nursing</i>. 2017;43(2): 18-27.  Makris UE, et al. "Management of persistent pain in the older patient: A clinical review." <i>JAMA</i>. 2014;312(8): 825-837.  Qaseem A, et al. "Noninvasive treatments for acute, subacute, and chronic low back pain: A clinical practice guideline from the American College of Physicians." <i>Annals of Internal Medicine</i>. 2017;166(7): 514-30.  <b>Resources:</b> <a href="http://Non-Drug Pain Management Interventions webpage">Non-Drug Pain Management Interventions webpage</a>. GeriatricPain.org. Iowa City, IA: The University of Iowa, 2018.</p>
<p><b>Requirement</b></p>	<p>LD.04.03.13, EP 3: The organization provides staff and licensed independent practitioners with educational resources to improve pain assessment, pain management, and the safe use of opioid medications based on the identified needs of its patient or resident population.</p>
<p><b>Rationale</b></p>	<p>A high proportion of patients and residents in long-term care facilities experience pain, and many have comorbid conditions, e.g., cognitive impairment and disability that make the task of pain management especially difficult. To provide quality care, staff and licensed independent practitioners serving this population must be knowledgeable about multiple modalities of pain treatment, early identification and prevention of adverse medication effects, and management of patients with complex needs and medication regimens. The organization can increase staff and practitioner competence in pain management by providing access to evidence-based educational resources. Note: The methods for education may vary depending on the organization's needs and resources. Topics for education may include functional pain assessment, nonpharmacologic and pharmacologic pain treatment, prevention of harms from opioid therapy, and management of patients with complex needs.</p>

<p><b>Reference*</b></p>	<p>Long CO. "Pain management education in long-term care: It can make a difference." <i>Pain Management Nursing</i>. 2013;14(4): 220-227.</p> <p>Swafford KL, et al. "Geriatric pain competencies and knowledge assessment for nurses in long term care settings." <i>Geriatric Nursing</i>. 2014;35(6): 423-427.</p> <p>Trinkoff AM, et al. "CNA training requirements and resident care outcomes in nursing homes." <i>The Gerontologist</i>. 2017;57(3): 501-508.</p> <p><b>Resources:</b>  <a href="#">Pain webpage</a>. Medline Plus, Bethesda, MD: U.S. National Library of Medicine, webpage last updated Oct. 1, 2018.</p> <p>National Nursing Home Quality Improvement Campaign. <a href="#">Pain: Follow These Seven Simple Steps to Success webpage</a>. Washington, D.C.: Centers for Medicare &amp; Medicaid Services, 2018.</p> <p>Li H and Osborne L. "Pain management for long-term-care residents." <i>Nursing</i>. 2018;48(1): 64-67.</p> <p><a href="#">Geriatric Pain Knowledge Assessment webpage</a>. GeriatricPain.org. Iowa City, IA: The University of Iowa, 2018.</p>
<p><b>Requirement</b></p>	<p>LD.04.03.13, EP 6: The organization facilitates practitioner and pharmacist access to the Prescription Drug Monitoring Program databases.                  Note: This element of performance is applicable in any state that has a Prescription Drug Monitoring Program database, whether querying is voluntary or is mandated by state regulations for all patients prescribed opioids.</p>
<p><b>Rationale</b></p>	<p>Prescription Drug Monitoring Programs (PDMPs) aggregate prescribing and dispensing data submitted by pharmacies and dispensing practitioners. When used together with other assessment strategies and tools, PDMPs can assist providers in preventing misuse and diversion of prescription medications. A link on the computer homepage to all relevant PDMPs in the geographic areas served by the organization would facilitate access. The Joint Commission does not mandate that organizations use PDMPs prior to prescribing an opioid. However, some states (e.g., Massachusetts) require use of PDMPs prior to prescribing an opioid; organizations will be assessed on compliance with state law.</p>
<p><b>Resources</b></p>	<p>Prescription Drug Monitoring Program Training and Technical Assistance Center (PDMP TTAC) website. <a href="http://www.pdmpassist.org">www.pdmpassist.org</a>. Waltham, MA: Brandeis University, (no date).</p> <p>Substance Abuse and Mental Health Services Administration (SAMHSA). "<a href="#">Prescription drug monitoring programs: A guide for healthcare providers</a>," <i>In Brief</i>. 2017;10(1): 1-12.</p>

**Provision of Care, Treatment, and Services**

**PC.01.02.07: The organization assesses and manages the patient’s or resident’s pain and minimizes the risks associated with treatment.**

<p><b>Requirement</b></p>	<p>PC.01.02.07, EP1: The organization has defined criteria to screen, assess, and reassess pain that are consistent with the patient’s or resident’s age, condition, and ability to understand.</p>
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<p><b>Rationale</b></p>	<p>The Joint Commission’s technical advisory panel and current literature stress the importance of a consistent, evidence-based approach to pain assessment, which includes assessing how pain affects the patient’s function.                  Note: The organization has flexibility in choosing screening and assessment tools. Ideally, the tools will meet the needs of the patient population. For example, chronic pain generally requires more extensive patient/resident assessment, including various domains of physical and functional impairment.</p>
<p><b>Reference*</b></p>	<p>Czarnecki ML and Turner HN, eds. <i>Core Curriculum for Pain Management Nursing</i>, Third Edition. Eds. St. Louis, MO: Elsevier, 2018.</p> <p>Cornelius R, et al. "Acute pain management in older adults." <i>Journal of Gerontological Nursing</i>. 2017;43(2): 18-27.</p> <p>Gordon DB. "Acute pain assessment tools: Let us move beyond simple pain ratings." <i>Current Opinion in Anesthesiology</i>. 2015;28(5): 565-569.</p> <p>Reid MC, et al. "Management of chronic pain in older adults." <i>BMJ</i>. 350: h532. doi 10.1136/bmj.h532.</p> <p>Herr K, et al. "Pain assessment in the patient unable to self-report: Position statement with clinical practice recommendations." <i>Pain Management Nursing</i>. 2011;12(4): 230-250.</p> <p><b>Resources:</b>  <a href="#">Pain Assessment webpage</a>. GeriatricPain.org. Iowa City, IA: The University of Iowa, 2018.</p> <p>National Nursing Home Quality Improvement Campaign. <a href="#">Pain: Follow These Seven Simple Steps to Success webpage</a>. Washington, D.C.: Centers for Medicare &amp; Medicaid Services, 2018.</p>
<p><b>Requirement</b></p>	<p>PC.01.02.07, EP 3: The organization treats the patient’s or resident’s pain or refers the patient or resident for treatment.                  Note: Treatment strategies for pain include nonpharmacologic, pharmacologic, or a combination of approaches.</p>
<p><b>Rationale</b></p>	<p>Major professional organizations and experts recognize nonpharmacologic therapies and pharmacologic treatments as components of acute and chronic pain management. For patients who present with complex pain management needs or a patient whose pain management needs exceed the expertise of the patient’s attending licensed independent practitioner, a referral to internal or external health care professionals or organizations may be needed.</p>
<p><b>Reference*</b></p>	<p>American Medical Directors Association (AMDA). "Pain management in the long term care setting (Clinical Guideline)." Columbia, MO: AMDA, 1999, rev. 2012.</p> <p>Cornelius R, et al. "Acute pain management in older adults." <i>Journal of Gerontological Nursing</i>. 2017;43(2): 18-27.</p> <p>Makris UE, et al. "Management of persistent pain in the older patient: A clinical review." <i>JAMA</i>. 2014;312(8): 825-837.</p> <p>Reid MC, et al. "Management of chronic pain in older adults." <i>BMJ</i>. 350: h532. doi 10.1136/bmj.h532.</p> <p style="text-align: right;">(cont.)</p>

<p><b>Reference*</b></p>	<p><b>Resources:</b>  <a href="#">Pain Management webpage</a>. GeriatricPain.org. Iowa City, IA: The University of Iowa, 2018.</p> <p>National Nursing Home Quality Improvement Campaign. <a href="#">Pain: Follow These Seven Simple Steps to Success webpage</a>. Washington, D.C.: Centers for Medicare &amp; Medicaid Services, 2018.</p>
<p><b>Requirement</b></p>	<p>PC.01.02.07, EP 4: If the patient’s or resident’s assessed needs warrant a pain treatment plan, the organization develops a pain treatment plan based on evidence-based practices and the patient’s or resident’s clinical condition, past medical history, and pain management goals.</p>
<p><b>Rationale</b></p>	<p>Differences in the experience of acute or chronic pain may be caused by pain pathophysiology, risk factors, comorbidities, and psychosocial characteristics. These individual variations support individualized pain treatment planning by an interdisciplinary team. The organization is responsible for ensuring that pain assessment and reassessment data that inform the development and/or revision of the pain treatment plan are complete, accurate, and shared among the interdisciplinary care team in a timely manner.</p>
<p><b>Reference*</b></p>	<p>American Medical Directors Association (AMDA). “Pain management in the long term care setting (Clinical Guideline).” Columbia, MO: AMDA, 1999, rev. 2012.</p> <p>Cornelius R, et al. "Acute Pain Management in Older Adults." <i>Journal of Gerontological Nursing</i>. 2017;43(2): 18-27.</p> <p>Makris UE, et al. "Management of persistent pain in the older patient: A clinical review." <i>JAMA</i>. 2014;312(8): 825-837.</p> <p><b>Resources:</b>  <a href="#">Pain Management webpage</a>. GeriatricPain.org. Iowa City, IA: The University of Iowa, 2018.</p>
<p><b>Requirement</b></p>	<p>PC.01.02.07, EP 5: The organization involves patients, residents, and/or their families in the pain management treatment planning process through the following:</p> <ul style="list-style-type: none"> <li>- Developing realistic expectations and measurable goals that are understood by the patient, resident, and/or family for the degree, duration, and reduction of pain</li> <li>- Discussing the objectives used to evaluate treatment progress (for example, relief of pain and improved physical and psychosocial function)</li> <li>- Providing education on pain management, treatment options, and safe use of opioid and non-opioid medications when prescribed</li> </ul> <p>(See also RI.01.02.01, EPs 5–7; RI.01.03.01, EP 1)</p>
<p><b>Rationale</b></p>	<p>Engagement with patients or residents that is based on assessments of pain intensity rating alone is insufficient because it may lead to undertreatment of pain among older adults. To accurately determine pain-related needs among older adults, an open discussion about pain experience and plans to address pain is necessary. The Joint Commission’s technical advisory panel on pain management emphasized the importance of discussions between the patient/resident and the provider/care team about realistic goals and expectations for the trajectory of pain. It is important to identify domains of function or quality of life issues that the patient/resident values and prioritize improvement in these areas to increase satisfaction with treatment progress.</p>

<p><b>Reference*</b></p>	<p>Makris UE, et al. "Management of persistent pain in the older patient: A clinical review." <i>JAMA</i>. 2014;312(8): 825-837.</p> <p>Simmons SF, et al. "Pain and satisfaction with pain management among older patients during the transition from acute to skilled nursing care." <i>The Gerontologist</i>. 2016;56(6): 1138-1145.</p> <p><b>Resources:</b>  <a href="#">Education for Patients and Families webpage</a>. GeriatricPain.org. Iowa City, IA: The University of Iowa, 2018.</p>
<p><b>Requirement</b></p>	<p>PC.01.02.07, EP 7: Based on the patient's or resident's condition, the organization reassesses and responds to the patient's or resident's pain through the following:</p> <ul style="list-style-type: none"> <li>- Evaluation and documentation of response(s) to pain intervention(s)</li> <li>- Progress toward pain management goals including functional ability (for example, improved pain, improved or preserved physical function, quality of life, mental and cognitive symptoms, sleep habits)</li> <li>- Side effects of treatment</li> <li>- Risk factors for adverse events caused by the treatment</li> </ul>
<p><b>Rationale</b></p>	<p>Reassessment should be completed to determine if the intervention is working or if the patient or resident is experiencing adverse effects. Unidimensional reassessment based on pain intensity rating alone is inadequate. The Joint Commission's technical advisory panel stressed the importance of reassessing how pain affects a patient's/resident's function and ability to make progress toward treatment goals. For example, the goal of pain management may be improved or preserved ability to perform daily activities. Among adults with cognitive impairment, monitor behavioral indicators of pain to assess response to treatment.</p>
<p><b>Reference*</b></p>	<p>Czarnecki M and Turner H, eds. Core Curriculum for Pain Management Nursing, Third Edition. St. Louis, MO: Elsevier, 2018.</p> <p>Gordon DB. "Acute pain assessment tools: Let us move beyond simple pain ratings." <i>Current Opinion in Anesthesiology</i>. 2015;28(5): 565-569.</p> <p>Herr K, et al. "Pain assessment in the patient unable to self-report: Position statement with clinical practice recommendations." <i>Pain Management Nursing</i>. 2011;12(4): 230-250.</p>
<p><b>Requirement</b></p>	<p>PC. 01.02.07, EP 8: The organization educates the patient or resident and his or her family on discharge plans related to pain management including the following:</p> <ul style="list-style-type: none"> <li>- Pain management plan of care</li> <li>- Side effects of pain management treatment</li> <li>- Activities of daily living, including the home environment, that might exacerbate pain or reduce effectiveness of the pain management plan of care, as well as strategies to address these issues</li> <li>- Safe use, storage, and disposal of opioids when prescribed</li> </ul>
<p><b>Rationale</b></p>	<p>Patients perceive good patient-provider communication and education as indicators of high-quality care. Discharge education is an opportunity for the provider/care team to engage the patient or resident and his or her family in a discussion on the pain management plan and opioid safety.</p>

<b>Reference*</b>	<p>Mohammed K, et al. Creating a patient-centered health care delivery system: A systematic review of health care quality from the patient perspective. <i>American Journal of Medical Quality</i>. 2016;31(1): 12-21.</p> <p><b>Resources:</b>                  Lindquist LA, et al. "SGIM-AMDA-AGS consensus best practice recommendations for transitioning patients' healthcare from skilled nursing facilities to the community." <i>Journal of General Internal Medicine</i>. 2017;32(2): 199-203.</p> <p>U.S. Food &amp; Drug Administration. "<a href="#">Disposal of unused medicines: What you should know</a>." Drugs webpage. Silver Spring, MD: U.S. FDA, webpage last updated Oct. 16, 2018.</p> <p>Opioid Misuse and Diversion: The Big Picture; A Guide for Practice Change; "<a href="#">SIP: Reducing opioid misuse and diversion – Opioid practice change package</a>." Charleston, WV: Quality Insights – Quality Innovation Network. 2017.</p>
<b>Requirement (existing)</b>	PC.01.02.07, EP 9: If the patient or resident is unable to convey the presence of pain, the organization uses a validated non-verbal/non-cognitive pain assessment tool.

**Performance Improvement**

**PI.01.01.01: The organization collects data to monitor its performance.**

<b>Requirement</b>	PI.01.01.01, EP 40: The organization collects data on pain assessment and pain management including types of interventions and effectiveness.
<b>Rationale</b>	While a large number of patients or residents in long-term care facilities experience pain, there are gaps in the quality of pain assessment and management in this setting. Organization-level pain assessment and pain management data are important for evaluating organizationwide practices and setting performance improvement goals.
<b>Reference*</b>	<p>Hunnicut JN, et al. "Pain and pharmacologic pain management in long-stay nursing home residents." <i>Pain</i>. 2017;158(6): 1091-1099.</p> <p>National Quality Partners™ Opioid Stewardship Action Team. National Quality Partners Playbook™: Opioid Stewardship. Washington, D.C.: National Quality Forum, March 2018.</p>

**PI.02.01.01: The organization compiles and analyzes data.**

<b>Requirement</b>	PI.02.01.01, EP 18: The organization analyzes data collected on pain assessment and pain management to identify areas that need change to increase safety and quality for patients or residents (for example, percent of patients/residents with complete assessment/reassessment data and percent of patients/residents meeting treatment goals).
<b>Rationale</b>	According to the stakeholder feedback and literature, current processes and practices related to pain assessment and ongoing evaluation of pain treatment effectiveness require strengthening. For example, assessment data are incomplete and not based on validated tools or recommended practices. In the long-term care setting, where pain management needs are complex, and the populations are at an increased risk of treatment-associated complications, having strong clinical processes is essential for supporting safe, high-quality pain care.

<p><b>Reference*</b></p>	<p>Reid MC, et al. "Pain management in long-term care communities: A quality improvement initiative." <i>The Annals of Long-Term Care</i>. 2015;23(2): 29-35.</p> <p><b>Resources:</b>  <a href="#">Quality Improvement webpage</a>. GeriatricPain.org. Iowa City, IA: The University of Iowa, 2018.</p> <p>National Nursing Home Quality Improvement Campaign. <a href="#">Get Tracking Tools</a>. Washington, D.C.: Centers for Medicare &amp; Medicaid Services, 2018.</p> <p>Bakerjian D and Zisberg A. "Applying the advancing excellence in America's nursing homes circle of success to improving and sustaining quality." <i>Geriatric Nursing</i>. 2013;34(5): 402-411.</p>
<p><b>Requirement</b></p>	<p>PI.02.01.01, EP 19: The organization monitors the use of opioids to determine if they are being used safely (for example, tracking of adverse events such as over-sedation). (See also LD.01.06.01, EP 16; LD.04.03.13, EP 1)</p>
<p><b>Rationale</b></p>	<p>Opioids are one of the leading causes of preventable adverse drug events in long-term care facilities. Analysis of data related to adverse events and development of prevention strategies are necessary to increase quality and safety of patient/resident care.</p>
<p><b>Reference*</b></p>	<p>U.S. Department of Health and Human Services Office of Inspector General. "<a href="#">Adverse Events in Skilled Nursing Facilities: National Incidence among Medicare Beneficiaries</a>." Washington, D.C. 2014.</p> <p>U.S. Department of Health and Human Services, Office of Disease Prevention and Health Promotion. "<a href="#">National Action Plan for Adverse Drug Event Prevention</a>." Washington, D.C. 2014.</p> <p><b>Resources:</b>  The Society For Post-Acute And Long-Term Care Medicine (AMDA). "<a href="#">Quality Prescribing: Adverse drug events (ADEs) remain an important, but largely preventable, source of harm to patients</a>." Columbia, MD: American Medical Directors Association, 2015.</p> <p>Centers for Medicare &amp; Medicaid Services (CMS). <a href="#">Adverse Events in Nursing Homes webpage</a>. Baltimore, MD, webpage last updated Sept. 13, 2016.</p> <p>Quality Insights. <a href="#">The Big 3 Adverse Drug Events Toolkit</a>. Washington, D.C.: Centers for Medicare &amp; Medicaid Services, 2017.</p>

\*Not a complete literature review.