

WHAT'S HOT

A Newsletter of



In This Issue:

Pain Management for Older Adults

The GSA 63rd Annual Scientific Meeting. 1

The Impact of Pain in Older Adults 2

Treatment of Pain in Older Adults—Medication Selection and Safe Use. 5

Recommendations on Physical Activity for Older Adults. 9

Special Considerations for Residents of Long-Term Care Facilities 11

Adviser:

Deborah Dillon McDonald, RN, PhD
Associate Professor
University of Connecticut
School of Nursing
Storrs, Connecticut

Supported by



The GSA 63rd Annual Scientific Meeting

Approximately 3,500 of the brightest minds in the field of aging converged in New Orleans, Louisiana, at The Gerontological Society of America's (GSA) 63rd Annual Scientific Meeting, November 19–23, 2010. The meeting's theme, *Transitions of Care Across the Aging Continuum*, was selected to focus attention on the life changes that seniors face, including health care transitions, social transitions, financial transitions, psychological transitions, and other issues.

In addition to featuring more than 500 sessions that explored numerous facets of aging and associated transitions, the 5-day event also celebrated the 65th anniversary of the founding of GSA. Participants had the opportunity to look back on the accomplishments since GSA was established in 1945, including playing a role in the founding of the National Institute on Aging and informing policy decisions during the legislative and regulatory process of health care reform.

This issue of *WHAT'S HOT* focuses on issues surrounding pain management in the elderly population. Representative abstracts from the meeting have been selected and are discussed within the context of other recent national developments affecting pain management in older adults.

Researchers reported on the impact of pain in older adults, and looked at strategies for managing pain and preserving function. Other presenters explored strategies to improve the assessment and management of pain for residents in long-term care facilities, including those



TRANSITIONS OF CARE



ACROSS THE AGING CONTINUUM



who have dementia. These briefings inform researchers, decision makers, clinicians, and patients about the importance of good pain management for overall health and well-being, and suggest opportunities to improve care of older adults with pain.



The Impact of Pain in Older Adults

Chronic or persistent pain is common in older adults, arising from numerous conditions, such as arthritis, cancer, neuralgias, vascular disease, trauma (e.g., osteoporotic fractures), and myriad other causes.¹ Undertreatment of chronic pain in older adults is common, contributing to unnecessary suffering.^{2,3}

Chronic pain has a serious impact on affected individuals regardless of

their age, influencing physical, mental, and social function, sleep, and other measures of quality of life. In many cases, chronic pain can lead to a vicious cycle, in which patients do not engage in physical activity to avoid pain, which leads to deconditioning and declining psychological outlook, which further contribute to worsening pain. In older adults, common adverse outcomes include functional impairment, falls,

slow rehabilitation, mood changes, decreased socialization, and disturbed sleep and appetite.¹ Other research has demonstrated that older adults with pain prematurely develop the functional limitations classically associated with aging.⁴

Examining the Relationship Between Pain and Disability

The MOBILIZE Boston Study, undertaken through a grant from the National Institute on Aging, is a population-based study to examine the impact of pain on the development of disability among older adults.⁵ Leveille and colleagues analyzed study data over 18 months in 765 community-living adults older than 64 years of age. Their find-

ings revealed that the more widespread and severe pain was, the more likely it was to result in the development of disability, as defined by difficulty in activities of daily living and mobility. The researchers concluded that improved management of chronic pain has the potential to reduce disability in older adults.

Chronic pain location and severity were associated with increased risk for developing new or worsening disability.

Chronic Musculoskeletal Pain Contributes to Onset or Worsening of Disability in an Older Population

S. G. Leveille^{1,2}; D. Kiely³; R. Jones^{2,3}; R. H. Shmerling^{2,4}; J. Guralnik⁵; J. F. Bean^{2,6}

1. University of Massachusetts Boston, Boston, MA; 2. Harvard Medical School, Boston, MA; 3. Hebrew SeniorLife, Boston, MA; 4. Beth Israel Deaconess Medical Center, Boston, MA; 5. National Institute on Aging, Bethesda, MD; 6. Spaulding Cambridge Outpatient Center, Cambridge, MA

Chronic pain is associated with disability, but few studies have examined the disabling impact of chronic pain over time in an older population. The MOBILIZE Boston Study, a population-based longitudinal study, enrolled 765 community-living adults aged >64 years. Participants were assessed at baseline and 18 months, and asked about chronic joint pain locations using a 13-item instrument and pain severity using a subscale of the Brief Pain Inventory (BPI). We used multivariable logistic regression models to determine the relationship between baseline pain and subsequent disability (any difficulty in activities of daily living [ADL], instrumental activities of daily living [IADL], and mobility). The onset of new or worsening ADL disability at 18 months was 5.4% of persons reporting no joint pain at baseline, 10.3% of those reporting 1 joint pain site, 16.5% of persons reporting >2 joint pain sites, and 20.2% of those reporting widespread pain at baseline (trend, p value <.0001). After multivariable adjustment (sociodemographics, chronic conditions, analgesic and psychoactive medications, physical performance, and baseline disability) for new/worsening ADL disability, the OR for >2 pain sites at baseline was 3.87 (95% CI, 1.81–8.29) and for widespread pain, OR = 3.64 (95% CI, 1.49–8.88). Significant associations were also observed for IADL and mobility disability (adjusted OR = 1.17 per unit increase, 95% CI, 1.02–1.34). In conclusion, chronic pain location and severity were associated with increased risk for developing new or worsening disability at 18 months. Greater attention to prevention and management of chronic pain may reduce disability in the older population.



The Impact of Pain on Sleep in Older Adults

Poor sleep is common in older adults and has implications for quality of life and level of functioning; it also can contribute to morbidity and mortality. Furthermore, some research indicates that sleep problems may contribute to age-related cognitive decline.⁶

Changes in sleep as individuals age may be due to normal developmental processes; however, sleep changes secondary to medical or psychiatric problems (e.g., chronic pain, dementia, depression) can contribute to poor-quality sleep.⁷ To explore the relationship between chronic pain and sleep problems in older adults, Chen and colleagues analyzed data from 765 older adults in the MOBILIZE Boston Study, using selected measures from the Center for Epidemiologic Studies Depression Scale: “trouble getting to sleep,” “sleep more than usual,” and “restless sleep.” The researchers found significant associations among several measures of chronic pain and sleep difficulty in this population. Although

the data were derived from a scale used to assess depressive symptoms, they suggest that pain has a negative impact on sleep.

Widespread or other multisite pain and moderate to severe pain are strongly associated with sleep difficulty in older adults.



Chronic Musculoskeletal Pain and Sleep Problems in the Older Population

Q. Chen¹; L. Hayman¹; R. H. Shmerling²; J. F. Bean³; S. G. Leveille^{1,2}

1. University of Massachusetts Boston, Boston, MA; 2. Beth Israel Deaconess Medical Center, Boston, MA; 3. Spaulding Cambridge Rehabilitation Outpatient Center, Boston, MA

Although chronic pain and sleep difficulty are common problems affecting older adults, the relationship between pain and sleep is poorly understood. We evaluated pain severity and location in relation to sleep problems in 765 participants aged >64 years from the population-based MOBILIZE Boston Study. Pain severity was measured using the Brief Pain Inventory (BPI) severity subscale. Pain location was grouped according to no pain, single site, >2 sites, and widespread pain (upper and lower extremities and back pain). We measured 3 aspects of sleep difficulty using items from the Center for Epidemiologic Studies Depression Scale (trouble getting to sleep, sleep more than usual, and restless sleep). At the baseline interview, prevalence of trouble getting to sleep according to BPI severity was 17.8%, 19.7%, 32.0%, and 37.0% for the lowest to highest pain severity quartiles, respectively. Similar relationships between pain and sleep were observed across sleep measures according to pain severity and location. In multivariable logistic regression models, chronic pain was associated with trouble sleeping (≥ 1 day/week) (widespread pain, OR = 2.55, 95% CI, 1.43–4.54; multisite pain OR = 2.38, 95% CI, 1.48–3.83; and single site pain, OR = 1.77, 95% CI, 1.10–2.87, each compared with no pain). Similar associations were observed across each sleep measure. With specific musculoskeletal sites alone or in combination with other pain sites, only modest associations were observed with sleep problems. In conclusion, widespread or other multisite pain and moderate to severe pain are strongly associated with sleep difficulty in older adults. Further research is needed to better understand the burden and consequences of pain-related sleep problems in the older population.





Pain Is Not Normal

Although pain is associated with many conditions that are common in older adults, pain should not be viewed as “normal.” It is important for clinicians and others who care for older adults to remember that pain is a signal that something is wrong and needs to be addressed. Reports of pain should not be dismissed simply because the patient is older. Although the cause of the pain cannot always be cured, appro-

priate pain management is integral to preserve function and quality of life, regardless of the patient’s age.

In a poignant presentation, “It’s Probably Just Arthritis,” Martin examined the life history of an 89-year-old woman with sudden onset of debilitating pain. He described that some practitioners dismissed the patient’s reports of pain, a response that can likely be attributed to her advanced age. Martin reported that, regardless of the patient’s age, a comprehensive treatment pro-

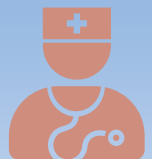
gram helped with pain management and her return to an active lifestyle.

Due to her age, she experienced negative attitudes from other health care practitioners who did not take her pain seriously, attributing it to ‘just arthritis’.

‘It’s Probably Just Arthritis’: Transitioning to an Integrative Medicine (IM) Model of Care for Managing Pain in Late Life—A Case Study

L. Martin
Wayne State University, Detroit, MI

What is an older adult to do when experiencing a major health transition, but encountering physicians who do not take the problem seriously because of her age? This presentation analyzes the life history and illness narrative of an 89-year-old female and her transition from being a healthy, active older adult to suddenly experiencing debilitating and unmanageable pain. This in-depth case study illuminates key themes on life-course disruption from dissertation research conducted in an integrative medicine (IM) pain clinic (August 2008–August 2009) that utilizes conventional biomedicine and complementary medicine for treatment. Using Gay Becker’s (1997) theoretical approach of continuity and life-course disruption, this case study highlights how the clinic’s IM approach in treating this older adult patient through a combination of trigger point injections, massage, and physical therapy helped her manage her pain and transition from this state of life-course disruption back to a state of continuity, where she reengaged with her active retirement. Her narratives describe how, due to her age, she experienced negative attitudes from other health care practitioners who did not take her pain seriously, attributing it to “just arthritis.” Her previous experiences ultimately led her to this IM pain clinic. Participants attending this presentation will be able to (1) identify the value of qualitative methods in highlighting the nuances that can emerge in life-course research and (2) discuss how in-depth case study analysis demonstrates the need for a more integrative model of pain management care in later life.



Treatment of Pain in Older Adults—Medication Selection and Safe Use

Although appropriate treatment of pain can reduce suffering and result in improved functional outcomes, the benefits of any treatment must be weighed against the risks. Many patients benefit from a multimodal approach to pain management that includes both pharmacologic

and nonpharmacologic approaches. Nonpharmacologic approaches may include physical activity, cognitive behavioral therapy, and complementary and alternative medicine (e.g., massage, acupuncture).

When analgesic therapy is used to help manage chronic pain, medications

must be carefully selected to minimize risks, particularly among older adults. Physiologic changes that occur with aging can affect pharmacokinetics and pharmacodynamics, resulting in increased risk for adverse events.¹

Guidelines From the American Geriatrics Society

In 2009, the American Geriatrics Society (AGS) released an updated Clinical Practice Guideline for the pharmacologic management of persistent pain in older persons to help guide medication selection.¹

According to these guidelines, “Acetaminophen should be considered as initial and ongoing pharmacotherapy in the treatment of persistent pain, particularly musculoskeletal pain, owing to its demonstrated effectiveness and good safety profile.”¹ However, the guidelines panel cautions that it is

important to ensure that patients do not exceed the maximum safe dose of acetaminophen and that acetaminophen not be used in people with liver disease. Older adults are at higher risk for adverse events from nonsteroidal anti-inflammatory drugs (NSAIDs), which include a class of drugs known as cyclooxygenase-2 (COX-2) selective inhibitors. Gastrointestinal bleeding and adverse cardiovascular events are the most common adverse events for older adults taking NSAIDs, and COX-2 inhibitors, respectively. In one study,

NSAIDs were implicated in 23.5% of cases of adverse drug reactions resulting in hospitalizations in adults 65 years of age and older.⁸ Thus, the guidelines conclude, “NSAIDs...may be considered rarely, and with extreme caution....”¹

Regarding opioids, the guidelines affirm that these medications may be appropriate for carefully selected and monitored patients. Furthermore, the guidelines note that the particular risks of NSAIDs in older adults may justify selection of opioids for older adults, especially for individuals at heightened risk for NSAID-associated adverse effects. If opioids are prescribed for

Predictors of Older Adults’ Use of Recommended Arthritis Pain Treatment

D. D. McDonald

University of Connecticut School of Nursing, Storrs, CT

Nonsteroidal anti-inflammatory drugs (NSAIDs) are not recommended for treatment of osteoarthritis pain in older adults due to the potential for adverse events. Exercise and acetaminophen remain the first-line treatments for osteoarthritis pain. The purpose of this descriptive secondary analysis was to identify factors predictive of older adults’ use of exercise and/or acetaminophen, and avoidance of NSAIDs. Data were analyzed from 455 adults aged 60 years and older with moderate or greater osteoarthritis pain intensity who responded to the Brief Pain Inventory between 2006 and 2007. A total of 212 (46.6%) reported using exercise and/or acetaminophen and did not report using NSAIDs. The following predictors were entered into a logistic regression to predict use of the exercise and/or acetaminophen and nonuse of NSAIDs: age, gender, Hispanic/non-Hispanic ethnicity, White/non-White race, less than high school/high school or greater education, arthritis treatment by a practitioner, pain treatment by a practitioner, pain intensity, functional interference from the pain, and percent of pain relief from current treatments. Older adults reporting arthritis treatment by a practitioner were 2.19 times (CI 1.07–4.51) more likely to use recommended arthritis pain treatment, $p < .03$. Only 3% to 4% of the variance for use of recommended pain management treatment was explained by the predictors. All of the older adults reported moderate or greater pain intensity, but less than half reported current use of the first-line recommended pain treatment. Results underscore the importance of guidance by practitioners who are knowledgeable about safe osteoarthritis pain management for older adults.



older adults with moderate to severe pain, they should be used on a trial basis as part of a comprehensive treatment program. Careful ongoing monitoring is required to ensure that the benefits of opioid therapy continue to outweigh the risks.

Emerging Research on Application of AGS Guidelines

The AGS guidelines on pharmacologic management of pain are based on the findings of an expert panel that conducted an evidence-based review of the literature, including an assessment of more than 24,000 citations.¹ These guidelines offer recommendations designed to support the safe and effective use of analgesic therapy in older persons.

McDonald investigated whether older adults' use of analgesics is aligned with these guidelines by conducting a secondary analysis of data from 455 adults 60 years of age and older who reported moderate or greater osteoarthritis pain. In particular, this study looked into whether older adults used exercise and/or acetaminophen and avoided NSAIDs, and the factors that were predictive of these behaviors. This study found that individuals being treated by a practitioner for arthritis were more likely to use exercise and/or acetaminophen and avoid NSAIDs, but overall, less than half of the participants used first-line recommended therapy.

Less than half reported current use of the first-line recommended pain treatment. Results underscore the importance of guidance by practitioners who are knowledgeable about safe osteoarthritis pain management for older adults.

Addressing Unintended Consequences

Several groups have expressed concern that some of the potential changes FDA is considering could have unintentional consequences.¹⁰ In response to the FDA's joint advisory committee meeting, the Pain Care Forum (a group of more than 50 organizations formed by the American Pain Foundation) created the Acetaminophen Task Force. The task force has identified several potential unintended consequences of reducing the dose of acetaminophen available without a prescription and proposed alternative solutions that would protect patients and support safe use of medications (see box).

American Pain Foundation Acetaminophen Task Force Statement

Implications of Significantly Reducing the Dose of Acetaminophen Available without a Prescription

- A reduction in the single nonprescription acetaminophen dose from the current 1,000 mg will lead to ineffective pain relief in some patients. In response, these patients will likely take more of the same medication, switch to alternative therapies, or both. This could heighten the potential for unintentional overdose, as well as lead to the use of alternative therapies known to be associated with increased risk.
- The same concerns arise with reduction of the maximum daily dose of acetaminophen. Patients who experience inadequate pain relief may seek other options, many of which will be more toxic than acetaminophen.
- Limiting the 1,000 mg single dose to prescription will increase the burden on patients and the already strained health care system. For some patients, the hurdle to obtain a prescription will result in insufficient pain relief for which less safe

over-the-counter (OTC) medications or additional acetaminophen (above recommended labeled dose) may be taken.

- In many cases, the most logical alternative nonprescription therapy would be OTC NSAIDs. Incidence of NSAID toxicity would be expected to increase. NSAID toxicity, both in the acute and chronic setting, has been associated with gastrointestinal bleeding, perforation and obstruction, cardiovascular thrombotic events, renal toxicity, anaphylactic reactions, and serious skin reactions, as well as hepatic toxicity. It is unlikely, then, that an overall reduction in harm to patients would occur through the reduction of acetaminophen dosages. Rather, there would be a shift in the types and seriousness of adverse events.

Recommendations for Alternative Actions to Address Health Concerns

- Changes in product labeling
 - The Final Labeling Rule, effective April 2009, already incorporates changes to ensure the presence of

FDA Actions to Support the Safe Use of Acetaminophen

Although acetaminophen remains the recommended first-line analgesic for many older adults, overdose of acetaminophen can result in hepatotoxicity, occasionally resulting in acute liver failure and death. Approximately 50% of all cases of acute liver failure in the United States result from acetaminophen, resulting in more than 450 deaths per year. Of these, approximately half are due to unintentional overdose. Several initiatives are underway to support the safe use of this medication.

In June 2009, a joint advisory committee of the U.S. Food and Drug Administration (FDA) met to discuss options and strategies to support the safe use of acetaminophen and reduce the public health risk of hepatotoxicity.⁹ The committee voted in favor of several actions, including:

- Lower the maximum total daily dose of acetaminophen in nonprescription single-ingredient and combination products.
- Lower the maximum over-the-counter (OTC) single dose for adults to 650 mg.
- Switch the 1,000 mg dose of acetaminophen to prescription-only status (if the maximum OTC dose is lowered to 650 mg).
- Eliminate prescription acetaminophen combination products.
- Require “unit of use” packages for prescription acetaminophen combination products.
- Require a boxed warning for prescription acetaminophen combination products.

Following this advisory committee meeting, the FDA has taken several actions to support the safe use of acetaminophen.

In September 2010, the FDA

announced the Safe Use Initiative in collaboration with the National Association of Boards of Pharmacy to encourage pharmaceutical manufacturers to stop using the chemical abbreviation APAP and instead spell out *acetaminophen* on prescription container labels. The intention of this labeling change from APAP to acetaminophen is to make it easier for consumers to (1) identify that their prescription pain reliever contains acetaminophen, (2) compare active ingredients on their prescription and OTC labels, and (3) avoid taking two medicines with acetaminophen, which can lead to an overdose.¹²

As part of the Safe Use Initiative, FDA is working with various other groups, including the Centers for Disease Control and Prevention and various consumer health advocates and trade groups, to form the Acetaminophen Awareness Coalition and launch the Know Your Dose public awareness

acetaminophen is clearly marked in OTC analgesics, antipyretics, and antirheumatics, and appropriate organ-specific warnings are listed. These same regulations should apply to prescription acetaminophen-containing medications.

- Change dosing instructions to read “Take 1 or 2 tablets/caplets.” This will encourage patients to use the lowest effective dose. This change was suggested by one of the sponsors at the advisory committee meeting, but yet the proceedings did not allow for the committee to vote on such change.
- Standardize labels on all medications containing acetaminophen to include a clearly understandable and standardized icon or pictograph conveying both the ingredient (i.e., acetaminophen) and the maximum single and daily dose limits on use.
- Labeling should unequivocally state that severe liver injury can result from improper acetaminophen use.
- Changes in product packaging
 - Innovative packaging techniques aimed at reducing the amount of acetaminophen available at one time

already exist, some of which were presented by one of the sponsors at the advisory committee meeting.

- Develop and implement targeted education campaigns directed at both consumers and health care practitioners. Both campaigns should be delivered through various channels to maximize reach and to enhance comprehension and compliance. The campaigns would introduce the new labeling, packaging, and the icon/pictograph. These campaigns would clearly present the known risks of acetaminophen use and overuse.
- Collaboration among sponsors, regulatory agencies, academia, professional organizations, and patient advocate groups to gather empirical data to be considered prior to decision making.

Adapted and reprinted with permission of the American Pain Foundation, <http://www.painfoundation.org>

In November 2010, the American Pain Foundation hosted a meeting of leading experts on liver injury and the safe use of acetaminophen. The goal of the meeting was to identify and evaluate measures to decrease morbidity and mortality of acetaminophen-related hepatic injury. Panel members presented relevant information and then discussed the particular risks and possible solutions; a meeting summary is forthcoming.¹¹



campaign. The goals of the campaign are to educate patients and consumers on how to appropriately use medicines containing acetaminophen and to change behaviors that could lead to unintentional overdose. The campaign will emphasize that although acetaminophen is safe and effective when taken as directed, exceeding the recommended daily dose can lead to liver damage.^{13,14} Additionally, the campaign will educate patients that acetaminophen is an ingredient in more than 600 medicines, and combinations of these products can lead to unintentional overdose.

FDA also has recently released a recommendation to limit the dosage of acetaminophen available in prescription products to 325 mg per tablet, capsule, or other dosage unit. Furthermore, FDA is requiring manufacturers to include a boxed warning on the labels of all prescription acetaminophen combination products to warn of the potential risk for severe liver injury. FDA stated, "These actions will help to reduce the risk of severe liver injury and allergic reactions associated with acetaminophen."¹⁵

FDA's Expert Roundtable on Pain Management in Older Adults

On September 30, 2010, FDA's Safe Use Initiative convened a roundtable of more than 40 experts from academia, health care management, consumer advocacy, and government to discuss the safe use of pain medications in older adults. Issues addressed included challenges to ensuring optimal use of pain medications in older adults, areas of focus for safe use activities, and ways to engage key stakeholders for collaboration.¹⁶

During the roundtable, a facilitated discussion addressed gaps in knowledge in treating older adults with pain, the undertreatment of pain, and the use and misuse of opioids and NSAIDs in older adults. Some of the challenges identified in the discussion included physician fear in prescribing opioids, the severity of opioid adverse effects in older persons, and the lack of adequate monitoring of patients who receive opioid prescription medications.

For NSAIDs, the challenges identified were the failure to use renal dosing guidelines, chronic use of NSAIDs, the use of multiple NSAID products leading

to NSAID overdose, the lack of documentation of OTC NSAID intake, and the lack of monitoring for NSAID side effects.

Meeting attendees developed a list of barriers to the safe use of pain medications in older adults, divided into four areas:

- Failure to use existing processes, mechanisms, and tools effectively.
- Failure to engage, communicate, and educate relevant stakeholders effectively.
- Lack of health care professional training.
- Lack of patient education and awareness.

This roundtable was an important first step for providing direction for Safe Use Initiative activities and setting the stage for future activities. A steering committee composed of six roundtable participants will meet regularly to chart future steps, engage and recruit participants, and focus on specific interventions to improve the safe use of NSAIDs in older adults.¹⁶

Recommendations on Physical Activity for Older Adults

For many older adults with persistent pain, complete relief of pain is an unrealistic goal. Instead, the goal is to restore and maintain physi-

cal activity and function to the greatest extent possible. For some older adults, this may involve the ability to play with their grandchildren; for others, it may be

the ability to perform activities of daily living such as walking.

Preserving Physical Activity

Wetherell and Bougie's research provided additional evidence regarding the importance of preserving physical activity. In this study, greater physical activity levels were associated with lower levels of pain interference and depression and

higher levels of quality of life in older adults. Thus, managing pain to preserve function at a level that allows physical activity may have a wide-ranging impact on patient well-being. Furthermore, these findings support the importance of physical activity for older adults.



These preliminary data suggest that physical activity may be a particularly important component in the maintenance of well-being among older people with chronic pain and support the need for an emphasis on physical activity in treatment of geriatric pain.

Physical Activity and Well-Being in Older and Younger Adults With Chronic Pain

J. L. Wetherell^{1,2}; J. Bougie³

1. VA San Diego Healthcare System, San Diego, CA; 2. University of California San Diego, La Jolla, CA; 3. Loma Linda University, Loma Linda, CA

We compared 41 older adults (age 60–89 years) with 73 younger adults (age 26–59 years) presenting for treatment of chronic pain. The older adults reported lower levels of pain severity, interference, and depression, and higher levels of mental health-related quality of life than did the younger adults. Although self-reported physical activity levels did not differ between the groups, activity was associated with lower levels of pain interference ($r = -.467$, $p = .001$) and depression ($r = -.420$, $p = .006$) and higher levels of quality of life ($r = .512$, $p = .001$) among the older adults; this was not true among the younger adults ($rs = .27-.79$). Objective data on physical activity using accelerometer-based actigraphy were also collected and will be used to examine these relationships. These preliminary data suggest that physical activity may be a particularly important component in the maintenance of well-being among older people with chronic pain and support the need for an emphasis on physical activity in treatment of geriatric pain.





Physical Activity Has a Multitude of Benefits

Another study, by Altpeter and colleagues, demonstrated that physical activity leads to improvement in a wide range of measures in older adults. The Arthritis Foundation's Walk With Ease (WWE) program is designed to help individuals with arthritis develop a walking plan that meets their specific needs, provide motivation, help patients self-manage pain, and teach safe physical activity practices.¹⁷ The researchers examined results from 468 individuals

who participated in the WWE program and compared results between those who participated in instructor-led groups and those using self-directed formats. Individuals in both groups demonstrated improvement for almost all performance measures, and there were no significant differences between the groups. These results provide further evidence for the benefit of physical activity in improving well-being.

The [Walk With Ease] program appears to decrease disability and improve arthritis symptoms, self-efficacy and perceived control, balance, strength, and walking pace in individuals with self-reported arthritis.

Comparing the Group Versus Independent Format of the Arthritis Foundation Walk With Ease Program: Do Both Formats Work?

M. Altpeter¹; B. Schoster²; J. Shreffler²; K. R. Martin²; L. Houenou²; J. M. Hootman³; L. Callahan²

1. University of North Carolina at Chapel Hill Institute on Aging, Chapel Hill, NC; 2. University of North Carolina at Chapel Hill Thurston Arthritis Research Center, Chapel Hill, NC; 3. Centers for Disease Control and Prevention Arthritis Program, Atlanta, GA

A quasi-experimental pretest-posttest evaluation of the revised 6-week Arthritis Foundation (AF) Walk With Ease (WWE) program was conducted in 468 individuals with self-reported arthritis from 27 urban and rural communities. Participants selected either instructor-led group ($n = 192$) or self-directed ($n = 276$) formats. Baseline and post-WWE program assessments were administered, with 93% group and 83% self-directed participant follow-up rates. Adjusted mean outcome values for the group and self-directed participants posttest were determined using regression models, adjusting for baseline outcome, age, gender, race, and education. Effect sizes (ES) and 95% confidence intervals (CI) were computed. Self-directed participants were on average younger, better educated, in better health, and performed better on functional tests than their group counterparts. For both delivery formats, significant adjusted mean improvements ($p < .05$) were seen for all of the self-report and performance measures, except for arthritis self-efficacy (ASE) and the 2 min step; moderate effects were also seen for disability, pain, fatigue, stiffness, and helpfulness; and self-efficacy (SE) scales had modest improvements, as did performance measures; ES ranged from .09 to .39. There were no significant differences in the outcomes between the two groups. The AF's revised WWE program appears to decrease disability and improve arthritis symptoms, self-efficacy and perceived control, balance, strength, and walking pace in individuals with self-reported arthritis regardless of whether they are taking an instructor-led group class or doing the program on their own as self-directed walkers.



Special Considerations for Residents of Long-Term Care Facilities

Pain assessment and management are more complex in individuals with dementia, which is common

among residents of long-term care (LTC) facilities. Individuals with dementia have difficulty communicating.¹⁸ However,

many such patients have painful comorbid conditions that require analgesia to provide comfort and quality of life.

Assessment of Pain in Patients With Dementia

Because pain is a subjective experience, accurately assessing it can be challenging. Whenever possible, pain assessments should be based on patients' report of their experience, including both subjective reports as well as the use of verbal and numerical rating scales for quantifying the level of pain. Thus, valid and reliable pain assessment instruments are essential

for pain management of nonverbal older adults with dementia.

Cervo and colleagues evaluated the use of the Certified Nursing Assistant Pain Assessment Tool (CPAT) in 186 patients with dementia residing in LTC facilities. This study found that the CPAT was an appropriate instrument for assessing pain in these individuals.

This study provides evidence that the CPAT is a reliable and valid pain assessment instrument, as well as a clinically utile and feasible tool when used in nursing home residents with dementia.



Implementation of a Pain Protocol in an LTC Facility

Recent expert consensus recommendations from the Nursing Home Pain Collaborative caution that behavioral pain assessment instruments are only one part of the comprehensive pain assessment for older adults with dementia. Health and medical history, physical examination, and reports from family members provide important additional information about the pain. It is important to assess older adults across multiple time points and to evaluate pain during motion. Behavior change might be the first sign of pain.¹⁹

Once pain is accurately assessed in LTC facility residents, the next step is appropriate management. Barriers and challenges to pain management in LTC facilities include large populations of cognitively impaired residents, little physician contact, and poor pain educa-

tion for nurses and nurse assistants.²⁰ Furthermore, LTC facilities may lack adequate pain management policies or procedures.

Implementation of a standardized pain management program has been shown to increase the frequency of pain assessments and treatment interventions. A study found that a comprehensive pain management program—including staff education, changes in pain policies and procedures, and the identification of pain management as a quality indicator—resulted in improvement in long-term care pain management.²¹ Kaasalainen and colleagues found similar results in their study of the implementation of a pain protocol for LTC facility residents. These researchers found that the protocol led to significant improvements in pain assessments and interventions.

The implementation of a pain protocol intervention improved the way pain was managed and provided pain relief for LTC residents.

Pain Assessment in Nursing Home Residents With Dementia

F. A. Cervo^{1,2}; P. Bruckenthal³; J. J. Chen²; L. Bright-Long^{4,2}; S. Fields^{5,2}; G. Zhang²; I. Strongwater¹

1. Long Island State Veterans Home, Stony Brook, NY; 2. Stony Brook University Medical Center, Stony Brook NY; 3. Stony Brook University School of Nursing, Stony Brook, NY; 4. Maria Regina Residence, Brentwood, NY; 5. Gurwin Jewish Geriatric Nursing and Rehabilitation Center, Commack, NY



Background: The effective management and treatment of pain in nursing home residents with dementia requires the use of a reliable, valid, and clinically feasible pain assessment tool. Our study examined the application of the Certified Nursing Assistant Pain Assessment Tool (CPAT) in long-term care settings.

Methods: 186 residents of three regional skilled nursing facilities participated in the study. The reliability, validity, and clinical feasibility of the CPAT were determined in Phase I of the project. In Phase II, the implementation of the CPAT was combined with the American Medical Directors Association pain management guideline to determine if short-term improvements in pain management could be achieved.

Results: The CPAT was found to have statistically significant levels of interrater and test-retest reliability, as well as acceptable levels of internal consistency. Construct and criterion validity were also found to be statistically significant. As determined by a practicality survey, the CPAT was found to be a clinically useful and feasible instrument. Phase II analysis revealed a statistically significant reduction in CPAT pain scores in both control and intervention arms of the study. When reductions in pain scores were compared for control and intervention periods, no significant change was found.

Conclusion: This study provides evidence that the CPAT is a reliable and valid pain assessment instrument, as well as a clinically utile and feasible tool when used in nursing home residents with dementia. Significant reductions in pain scores have shown that the CPAT is a useful tool in short-term pain management.



The Evaluation of a Pain Protocol Intervention in Long-Term Care

S. Kaasalainen¹; K. Brazil¹; J. Ploeg¹; N. Akhtar-Danesh¹; L. Dolovich²; E. Coker¹;
T. Hadjistavropoulos¹

1. McMaster University, Hamilton, ON, Canada; 2. University of Regina, Regina, SK, Canada



Objectives of the Study: The objectives of this project were to evaluate the effectiveness of (a) the implementation of a pain protocol in reducing pain in long-term care (LTC) residents and (b) dissemination strategies in improving clinical practice behaviors related to pain management (e.g., frequency and documentation of pain assessments, use of pain medication) among health care team members.

Method: We used a controlled before-after design to evaluate a pain protocol intervention that used a multifaceted approach to its implementation, including a site working group, pain education and skills training, and other quality improvement activities. We collected data (i.e., pain assessments, quality indicators related to pain management) for 200 LTC residents, 100 for the intervention and 100 for the control group, across four LTC homes.

Results: We found that pain increased significantly more for the control group than the intervention group. The percentage of residents with a nonpharmacological intervention documented for pain increased to 28.6% in the intervention group and decreased to 18.3% in the comparison group. Also, there were statistically significant findings between the intervention and comparison groups representing a positive change in clinical practice behavior favoring the intervention group for the following indicators: a standardized pain assessment tool was used, the assessment process accommodated for residents with cognitive and/or language problems, and an admission/initial pain assessment was completed.

Conclusions: These study findings indicate that the implementation of a pain protocol intervention improved the way pain was managed and provided pain relief for LTC residents.

Summary

The research and national initiatives presented in this issue of *WHAT'S HOT* underscore the importance of good pain management in older adults and explore strategies for optimizing patient well-being. Several of these studies build upon findings in

the literature that describe the impact of pain on elders and examine strategies for improving pain management. Good pain management includes selection of medications that are both safe and effective for the patient. Additional issues raised in this newsletter focus

on ongoing activities to support safe selection and use of analgesics, which is important to communicate to multiple stakeholders, including patients, caregivers, health care providers, policy-makers, and researchers.

Be a Part of It

Keep the discussion going by visiting www.geron.org/WhatsHot to discuss topics raised in this newsletter with your colleagues.

References

1. American Geriatrics Society Panel on the Pharmacological Management of Persistent Pain in Older Persons. (2009). Pharmacological management of persistent pain in older persons. *Journal of the American Geriatrics Society*, 57, 1331–1346.
2. Wittink, H. M., Rogers, W. H., Lipman, A. G., McCarberg, B. H., Ashburn, M. A., Oderda, G. M., & Carr, D. B. (2006). Older and younger adults in pain management programs in the United States: Differences and similarities. *Pain Medicine*, 7, 151–163.
3. Ferrell, B. A. (2004). The management of pain in long-term care. *Clinical Journal of Pain*, 20, 240–243.
4. Covinsky, K. E., Lindquist, K., Dunlop, D. D., & Yelin, E. (2009). Pain, functional limitations, and aging. *Journal of the American Geriatrics Society*, 57, 1556–1561.
5. MOBILIZE Boston: A Community Senior Health Study. (n.d.). Maintenance of balance, independent living, intellect, and zest in the elderly of Boston. Retrieved February 3, 2011, from <http://mobilizeboston.org>
6. Altena, E., Ramautar, J. R., Van Der Werf, Y. D., & Van Someren, E. J. (2010). Do sleep complaints contribute to age-related cognitive decline? *Progress in Brain Research*, 185, 181–205.
7. Crowley, K. (2011). Sleep and sleep disorders in older adults. *Neuropsychology Reviews*, 21, 41–53.
8. Franceschi, M., Scarcelli, C., Niro, V., Seripa, D., Pazienza, A. M., Pepe, G., ... Pilotto, A. (2008). Prevalence, clinical features and avoidability of adverse drug reactions as cause of admission to a geriatric unit: A prospective study of 1756 patients. *Drug Safety*, 31, 545–556.
9. Food and Drug Administration. (2009). Summary minutes of the joint meeting of the Drug Safety and Risk Management Advisory Committee, Nonprescription Drugs Advisory Committee, and the Anesthetic and Life Support Drugs Advisory Committee—June 29 and 30, 2009. Retrieved February 15, 2011, from <http://www.fda.gov/downloads/AdvisoryCommittees/CommitteesMeetingMaterials/Drugs/DrugSafetyandRiskManagementAdvisoryCommittee/UCM179888.pdf>
10. American Pain Foundation. (n.d.). American Pain Foundation shares Acetaminophen Task Force's concerns over recent FDA advisory committee recommendations regarding over-the-counter acetaminophen medications. Retrieved February 7, 2011, from <http://www.painfoundation.org/about/position-statements/acetaminophen-otc-task-force.pdf>
11. American Pain Foundation. (n.d.). Seeking solutions: Advancing the understanding of the safe use of acetaminophen. Retrieved February 7, 2011, from <http://www.painfoundation.org/painsafe/education-awareness/seeking-solutions-advancing.html>
12. Food and Drug Administration. (n.d.). Safe Use Initiative: Acetaminophen toxicity. Retrieved February 3, 2011, from <http://www.fda.gov/Drugs/DrugSafety/ucm230396.htm>
13. Food and Drug Administration. (November 16, 2010). FDA Safe Use Initiative: Public workshop. Retrieved February 7, 2011, from <http://www.fda.gov/downloads/Drugs/NewsEvents/UCM234177.pdf>
14. Acetaminophen Awareness Coalition prepares to launch education campaign. (November 17, 2010). Retrieved February 7, 2011, from <http://www.cpha.com/associations/7884/files/Acetaminophen.pdf>
15. Food and Drug Administration. (January 13, 2011). FDA Drug Safety Communication: Prescription acetaminophen products to be limited to 325 mg per dosage unit; Boxed warning will highlight potential for severe liver failure. Retrieved February 7, 2011, from <http://www.fda.gov/Drugs/DrugSafety/ucm239821.htm#aih>
16. Food and Drug Administration. (September 30, 2010). Safe Use Initiative: Expert roundtable on pain management in older adults. Retrieved February 15, 2011, from <http://www.fda.gov/Drugs/DrugSafety/ucm231647.htm>
17. Arthritis Foundation. (n.d.). Walk With Ease program. Retrieved February 7, 2011, from <http://www.arthritis.org/walk-with-ease.php>
18. Collett, B., O'Mahoney, S., Schofield, P., Closs, S. J., Potter, J., & Guideline Development Group. (2007). The assessment of pain in older people. *Clinical Medicine*, 7, 496–500.
19. Herr, K., Bursch, H., Ersek, M., Miller, L., & Swafford, K. (2010). Use of pain-behavioral assessment tools in the nursing home: Expert consensus recommendations for practice. *Journal of Gerontological Nursing*, 36, 18–29.
20. Weissman, D. E., & Matson, S. (1999). Pain assessment and management in the long-term care setting. *Theoretical Medicine and Bioethics*, 20, 31–43.
21. Keeney, C. E., Scharfenberger, J. A., O'Brien, J. G., Looney, S., Pfeifer, M. P., & Hermann, C. P. (2008). Initiating and sustaining a standardized pain management program in long-term care facilities. *Journal of the American Medical Directors Association*, 9, 347–353.

LIFESTYLE → LIFESPAN

Obtain a 360° view on the most current research on aging. **Exclusively at GSA.**

Join over 3,500 of the world's leading gerontologists at GSA's 64th Annual Scientific Meeting. Taking place in Boston, November 18–22, this high energy, engaging meeting will leave you with a 360° perspective on aging research. From longitudinal studies to emerging trends, see where aging research has progressed and where it is going in the future.

Don't miss the 360° experience at GSA's 64th Annual Scientific Meeting.

The Gerontological Society of America

64th Annual Scientific Meeting

HYNES CONVENTION CENTER • BOSTON, MA

NOVEMBER 18–22, 2011



Keynote Speaker: Dan Buettner

Internationally recognized explorer and National Geographic writer, Dan Buettner, and his team of researchers have traveled across the globe to discover Blue Zones—hotspots of human health and vitality. Along the way he's met people teeming with vigor at age 100 and beyond. His presentation incorporates National Geographic images that will take attendees into the world's five Blue Zones, tell stories and instruct how to get more life from your years and more years from your life.

For more information on this speaker, please visit www.apbspeakers.com.



Registration opens this July
visit www.geron.org/annualmeeting



This Continuing Educational activity is joint-sponsored by the Colorado Foundation for Medical Care, Office of Continuing Education and The Gerontological Society of America.