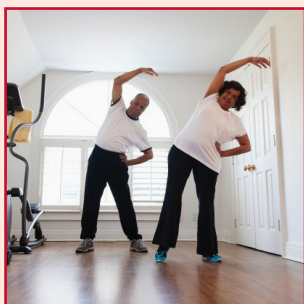


OCTOBER/NOVEMBER 2013

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The Problem of Pain: Finding Effective Solutions for Managing Pain in Later Life

Pain – particularly in older adults – knows no boundaries. It moves across all health care settings – acute care and outpatient, long-term care, and rehabilitation. “And the problem of pain is not unique to any one specialty, so health care providers in pulmonary medicine, cardiology, infectious diseases, dermatology, general medicine, and geriatrics all confront older adults with pain problems,” notes M. Cary Reid, MD, PhD, Director of the Translational Research Institute on Pain in Later Life (TRIPLL), a National Institutes of Health-funded center at Weill Cornell Medical College that supports translational research on pain and aging in New York City.

“Pain is a huge issue,” says Dr. Reid, who is also Director of the Office of Geriatric Research in the Division of Geriatrics and Palliative Medicine at Weill Cornell Medical College. “As documented by an Institute of Medicine report, well over 100 million people in this country – of all ages – suffer from chronic pain. It disproportionately affects older adults by virtue of the fact that older adults are more likely to have diseases that predispose to persistent pain problems, including arthritis,

Dr. Cary Reid’s research has shown many clinicians are often fearful of contributing to a patient’s bad outcome after receiving a treatment for pain, and that fear is the reason why many older adults have pain that is inadequately managed.

diabetes, cancer, and back pain. In fact, 50 percent of older adults will go on to experience chronic pain at some point in their lives. Pain that is not adequately managed can lead to all sorts of problems, as well as being a major contributor to increased health care costs.”

A Challenge for Clinicians

According to Dr. Reid, improved education of health care providers in managing pain in older adults is critical. He cites the example of a 90-year-old man with back pain and a gait disorder, putting him at risk for falls. “He may also have diabetes, congestive heart failure, hypertension, and atrial fibrillation,” says Dr. Reid. “This patient is seeing a cardiologist, as well as a rheumatologist, a geriatrician, and maybe one or two more specialists. He is probably taking 10 to 12 medications. He desperately wants to remain independent to the extent possible, and back pain may be limiting his ability to do what he most wants to do for the time he has left.”

Many of the medications currently available to treat pain can, in fact, reduce pain levels; however, they have many side effects. “Some of the strong medications can make the gait problems worse, make the heart problems worse, and can increase blood pressure,” says Dr. Reid. “So clinicians are challenged in many ways when they try to help their patients reach their goals. Much of the work of our center focuses on determining the value of non-drug treatments because they are safer and, in many cases, can be just as effective as the analgesic medications.”

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Dr. M. Cary Reid



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The Problem of Pain (continued from page 1)

Dr. Reid's research has shown that many clinicians are often fearful of contributing to a patient's bad outcome after receiving a treatment for pain, and that fear is the reason why many older adults have pain that is inadequately managed. "It's a balancing act that I think requires clinicians to be honest about the upsides and downsides of any given treatment," he says. "They have to explore the patient's goals and preferences and what their ability to accept risk might be. I have many older patients who are very comfortable with the idea of taking stronger medications to get some pain relief; and others, not so much. You have to go on a case-by-case basis."

Validating Methods to Impact Pain

TRIPLL seeks effective solutions to the problem of later-life pain, moving basic behavioral, social science, and medical research findings more rapidly into programs, practices, and policies targeting older adults. A National Institute of Aging-funded Edward R. Roybal Center, TRIPLL is one of 13 such centers nationally charged with promoting translational research on topics deemed important in the area of aging. The

interdisciplinary collaboration focuses on innovative approaches for improving pain management among older adults; developing research-based strategies for translating evidence into practice; and establishing an infrastructure for translational research on aging and pain in New York City.

TRIPLL brings together the expertise of multiple institutional partners that include Columbia University, Hospital for Special Surgery, Memorial Sloan-Kettering Cancer Center, and Cornell University at Ithaca, and community partners – the Council of Senior Centers and Services of NYC, Inc. and the Visiting Nurse Service of New York.

"Much of what we do is identify people who are doing exciting work in this area," says Dr. Reid. "We support their work by a pilot study program that encourages researchers to translate basic science research on pain into practice, and thereby expand scientific knowledge and provide practitioners with data that are useful to understanding and eventually alleviating pain experienced by older persons. We fund between three and six pilot studies a year, as well as monitor the progress of these grantees in the hope that their work

will lead to programs and policies that can measurably impact the problem of pain."

Three pilot studies in 2013 are measuring the effect of menopause on musculoskeletal pain, investigating pain as a covariate in lumbar spine surgery outcomes, and examining the impact of a social support intervention delivered via cellphone to patients with chronic pain. Studies in 2012 focused on environmental effects on pain and self-care; frailty, palliative needs, and outcomes in elderly ICU survivors; and a cognitive-behavioral pain self-management program in senior living communities.

Spreading the Word

TRIPLL maintains an active outreach educational program, including a webinar series presenting national speakers each month. "Most of our participants come from the greater New York area. However, we've also had international participants join in on the calls, which is gratifying," says Dr. Reid. TRIPLL also brings programs and practices into the underserved communities of New York.

TRIPLL is also one of the first programs to examine the role of mobile health technologies in pain care for older adults, accessing the web as a tool to educate. "It's certainly true that growing numbers of older adults routinely seek out information on the web and then bring it to their physicians," says Dr. Reid. "We are exploring in a number of studies now whether or not smart phones, tablets, and the internet can be tools to help deliver pain programs and to help them socialize better. We know that pain is a risk factor for social isolation. We're also looking to see whether or not the use of smart phones can be a way to improve communication between patients and their providers. It's really an exciting time. The jury is still out in terms of whether or not these tools are going to improve the way that care is delivered; however, I think it's a worthwhile exploration."

Six Steps to Managing Chronic Pain in Older Adults

Conduct a comprehensive pain history	Assess pain location and intensity. Ask how pain limits activity. What treatments have been tried? What worked best? Any intolerable adverse effects?
Review the problem list	Obtain full medication list (OTC and supplements) to identify potential interactions. What chronic conditions might worsen with analgesic medication or operate as a contraindication? Which drugs or comorbidities might affect treatment choices?
Establish treatment goals	Address potential unrealistic expectations; come to a mutual decision about the most important outcomes.
Identify barriers to therapy	Be aware of how cognitive or sensory impairment, sociodemographic factors, or health beliefs may limit medication adherence. Elicit the patient's concerns about medications and discuss openly. Include the caregiver, as needed, when discussing treatments and monitoring outcomes.
Start low and go slow when initiating analgesia	Avoid "start low and stay low," which can contribute to undertreatment. If treatment goals are not met and the patient is tolerating therapy, advancing the dose is reasonable before trying another intervention.
Assess for effects and outcomes	Make certain that the patient (or caregiver) understands what adverse effects might occur, and create a plan to address them. Establish how often and when communication should occur. Encourage telephone calls and/or e-mail to communicate questions or concerns.

Source: Ayres E, Warmington M, Reid MC. Chronic pain perspectives: Managing chronic pain in older adults: 6 steps to overcoming medication barriers. *Journal of Family Practice*. 2012 Sep;61(9 Suppl):S16-21.

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Richardson JE, Reid MC. The promises and pitfalls of leveraging mobile health technology for pain care. *Pain Medicine*. 2013 Jul 18. [Epub ahead of print]

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Preventing Frailty: A Geriatrician's Perspective

Why do some people in their 80s continue to live active and healthy lives, while others are impaired functionally, cognitively, and are coping with multiple medical problems? That is just one of the questions being addressed by geriatrician Thuy-Tien L. Dam, MD, and her colleagues in the Department of Medicine, Division of Geriatric Medicine and Aging, NewYork-Presbyterian/Columbia University Medical Center. “The heterogeneity among people suggests that there is a potential for successful aging and that there are many factors that we can improve to help people to live longer and with a better quality of life,” says Dr. Dam.

Geriatrician Linda P. Fried, MD, MPH, Dean of Columbia University Mailman School of Public Health, and Dr. Dam have been able to identify and validate criteria for what they term the frailty syndrome. “High-risk individuals have problems with multiple physiologic systems – endocrine, cardiovascular, pulmonary – everything is impaired and dysregulated,” says Dr. Dam. “Once you have impairments in multiple systems, everything can go wrong. With aging, a person’s physiologic reserve declines with time. This means that any incident, such as a urinary tract infection, will put older adults at a much higher risk for developing complications. Frailty, which is a phenotype of older adults, identifies high-risk individuals for adverse problems, including increased risk for falls, fractures, frequent hospitalizations, often going into a nursing home, and then dying early.”

“There are many factors that we can improve upon so that we help people to live longer and with a better quality of life.”

— Dr. Thuy-Tien L. Dam

Maintaining Physiologic Reserve

According to Dr. Dam, people are living for longer periods of time, but this period of time is associated with more chronic diseases, greater morbidity, and functional impairment. “That period is longer than it was before,” she says. “Ideally, we want to have a longer quantity of life, but shorten the period of time living with disability – what we call compression of morbidity. As geriatricians, our goal ultimately is to prevent people from losing physiologic reserve and enable them to maintain that reserve for as long as possible.”

Dr. Dam points to sarcopenia – an excessive loss of muscle mass associated with aging – as a key contributor to loss of strength, mobility, and leading to frailty. While genetically predetermined to some extent, decreased physical activity can accelerate the process of sarcopenia.

“One of my beliefs is that the musculoskeletal system is among the most significant contributors and early pathways that lead to frailty,” says Dr. Dam. “You start losing muscle, become weaker, and when you become weaker, you’re not getting up and staying active. An individual then becomes more immobile because their tolerance for exercise diminishes. This leads to becoming homebound, immobility, and subsequently more muscle loss from disuse. This is when you start to lose some balance, you don’t eat very



Dr. Thuy-Tien L. Dam

much, then you fall and get a fracture. You now end up in the hospital and then, possibly, a nursing home.”

Chronic pain, particularly from osteoarthritis, is another contributing factor in muscle loss. “If pain is not controlled, the person becomes less mobile,” she says. “It’s a vicious cycle where so many things combine to contribute to a person’s decline.”

Dr. Dam’s research focuses on maintaining muscle mass and the importance of mobility to extend the physiologic reserve. “Muscle loss occurs in your late 60s, early 70s, and much more so into your 80s,” notes Dr. Dam. “Strengthened muscles prevent falling and fractures. If we can slow down the loss of muscle mass early on, then older adults can function for a longer period of time and with less morbidities.”

Few studies have addressed changes in physical activity participation over time among the elderly. In a study published in the *American Journal of Epidemiology*, Dr. Dam and colleagues identified four distinct trajectories in leisure-time physical activity levels – always active, fast declining, stable moderate, and always sedentary – over 12 years in community-dwelling older women, aged 70-79 years at baseline. Using longitudinal data from 433 initially high-functioning older women, they identified predictors of such trajectories and determined that the maintenance of regular physical activity, even below recommended levels, was associated with lower mortality risk.

“Our findings suggest that physical activity does not have to be vigorous to be beneficial and that the gain may be the greatest among women who reported the lowest levels of activity,” says Dr. Dam.

“Improving vitamin D levels also improves muscle function and is thought to decrease falls by 33 percent,” she says. Dr. Dam has been working with Meals on Wheels, funded by the New York City Department for the Aging, to offer vitamin D supplements to those in the program.

“Instead of waiting until a person is too frail when there is not much to offer them, we want to reach them earlier,” adds Dr. Dam. “There is no miracle drug or procedure that’s going to dramatically change things for older adults; however, changes in nutrition and activity levels can really make a difference in maintaining quality of life.”

Reference Article

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