INTERDISCIPLINARY TEAM CASE SCENARIO

By Barbara Resnick, PhD, CRNP, and Paige Hector, LMSW

Pain Management

Ms. P is a 72-year-old woman who was admitted for rehabilitation after an above-the-knee amputation for a lower-extremity ulcer that did not heal due to associated arterial insufficiency. Her past medical history includes a cerebral vascular event and left hemiparesis, diabetes controlled by diet and oral medication, hypertension, peripheral neuropathy, and arterial insufficiency.

After surgery, Ms. P's stump healed well although there has been a moderate amount of swelling in the thigh because she could not tolerate wrapping the stump to reduce the swelling. Her pain is persistently rated as a 10, and her pain regimen upon admission was ineffective. The hip is the focal point of her pain, which she as burning and nerve-like stabbing. Changes in position have not altered her pain. She also has pain on palpation of the incision line, despite it being fully healed.

Her current medications include aspirin, 81 mg by mouth daily; vitamin D3, 1,000 mg by mouth daily; furosemide (Lasix), 20 mg by mouth daily; gabapentin (Neurontin), 300 mg by mouth three times a day; metformin, 500 mg by mouth twice a day; atorvastatin, 80 mg by mouth daily; duloxetine, 30 mg by mouth daily; oxycodone, 5 mg by mouth every 4 hours as needed for pain; acetaminophen, 1,000 mg by mouth three times a day; senna, 25 mg by mouth daily; and polyethylene glycol, 30 g by mouth daily.

Ms. P's laboratory work is all within normal limits with just a slight decrease in her hemoglobin to 10.5 and hematocrit of 33.4; her hemoglobin A1c is 6.8. Her body mass index is 20. Cognitively she has scored a 29/30 on the Mini–Mental State Examination, and there has been no evidence of depression. Ms. P has verbalized acceptance of these significant medical problems, and she has demonstrated resilient qualities by participating in therapy as much as possible and remaining focused on her goal of pain relief and to return home where she lives with her sister.

The interdisciplinary team (IDT) has convened to discuss her pain management.*

Attending Physician

Melvin Hector, MD, FAAFP, CAQ Geriatrics, CMD

Dr. Hector is a Tucson-based physician with over 30 years of medical director experience.

There are several areas to discuss regarding best pain management. Ms. P's pain history is noted, and she has been on duloxetine and Neurontin chronically for a peripheral neuropathy. There is room to increase the dose of either or both, carefully, if they help.

Although she is a "well-controlled" diabetic with a hemoglobin A1c of 6.8%, other factors may be contributing to her neuropathy. Given her postoperative anemia, checking her B_{12} level as well as performing iron studies and a thyroid function test might be useful. If she is iron-deficient, replacing that deficit might help her pain in the long term.

Preoperatively there may not have been much time in this particularly urgent case, but a discussion of the proposed surgery and its alternatives, the therapy and medication approach postoperatively, and the fact that she would now have a left hemiparesis and a right above-the-knee amputation that may profoundly affect her mobility and her life should have been explored. How she deals with this potential trauma affects how she copes with her discomfort.

If the incisional pain does not improve, consider ruling out infection with laboratory tests such as a white blood cell and/or an erythrocyte sedimentation rate/C-reactive protein level. I would recommend reviewing the operative report for clues as to the concerns of the surgeon.

Narcotics may be useful initially and briefly for her acute pain, but a transition to acetaminophen standing and as-needed orders or other nonsteroidal anti-inflammatory drugs (NSAIDs) should be considered. Additional modalities to try include heat, ice, positioning, distraction, early physical activity, and wrapping, if it can be tolerated. The reported hip pain is a little unexpected; it may be referred to the hip from the surgical distal trauma. Mobility, heat, investigating for another cause, and adjuvant therapy are indicated.

The approach to her different areas and types of pain must be tailored to each one. The IDT needs to consider the contributing factors, her life situation, her plans for the future, and the capabilities she retains, rather than dwelling on those that she may have lost.

Physical Therapist

Tonya Haynes, PT

Ms. Haynes holds a master's degree from Thomas Jefferson University and has 24 years of experience as a physical therapist working with the geriatric population. She is the director of rehabilitation at Mountain View Care Center in Tucson, AZ.

The physical therapist's primary goal for this patient would be pain management. After the medical providers have verified there is no active infection, a number of possible interventions can be used, starting with electrical stimulation.

Electrical stimulation offers a variety of treatment options. Some settings are most useful for pain management; others are better for edema control. There is even an electrical stimulation set up that is beneficial for patients experiencing phantom limb pain. All these different settings have the added benefit of increasing the circulation to the residual limb and helping with residual limb healing and swelling management.

If electrical stimulation is not successful, other modalities could be trialed such as shortwave diathermy and ultrasound. Once Ms. P's pain is better controlled, her therapist can focus on functional mobility and limb shaping to prepare for a prosthetic, even if this is only for transfers.

Activity Professional

Debbie Bouknight, BS, AC-BC, CDP

Ms. Bouknight is a board-certified activity consultant/educator through the Activity Professionals National Credentialing Center, with 47 years of experience in recreation and activities. She currently directs the Life Enrichment program at LMC Extended Care.

I would collaborate with therapy staff to incorporate exercises that can help Ms. P with strengthening and pain relief. I would also explore leisure interests and hobbies that may serve as a distraction from her pain.

The strategies to consider include a quiet space with low lighting and calm/soft music, aromatherapy if she has no allergies, hand and arm massage with lotion, and soft music to help refocus her thoughts. Perhaps Ms. P would enjoy using an iPad or other tablet to involve her in games, puzzles, music, and videos, or she might be open to trying adult coloring; a jigsaw puzzle, assembled independently or with others, might keep her mind engaged. Or we could offer a wordsearch or crossword puzzle book, or see if she might be interested in gardening or baking.

These activities can be incorporated with the assistance of the occupational therapist. Socializing with others or a peer support group may be beneficial as well. The activity staff should inform Ms. P of all the available community activity programs and encourage her participation. They can also ascertain whether she has skills that she would enjoy sharing and offer her the opportunity to lead an activity for her peers.

Occupational Therapist

Guey-Fang Christine Jih, PhD, MHE, OTR/L

Dr. Jih has worked in skilled nursing facilities, home health, acute care, and the academic setting for over 28 years.

Occupational therapy will focus on four areas of patient and caregiver education to minimize pain and facilitate maximum independence for self-care and functional transfers.

1. Desensitization techniques. Apply gentle touch and massage, tapping, even pressure, and squeeze techniques to the stump along with her scheduled pain medication. Apply an ACE wrap to the stump using figure-8 techniques following desensitization.
2. Physical modality for pain control. Apply cold packs and hot packs alternately and monitor her skin integrity. Ultrasound and transcutaneous electrical nerve stimulation (TENS) may also be effective in minimizing her stump pain.
3. Positioning and self-care. Position the stump and hip properly while she is in her wheelchair and in bed to help prevent hip flexion contracture. Use a solid seat insert when she is sitting in the wheelchair, and perform functional transfers with her existing limb or using a sliding board for side transfers if a 90-degree stand-pivot transfer is difficult for Ms. P and her caregivers.
4. Purposeful activity engagement. Explore leisure activities or occupations such as reading, gardening, or singing to integrate Ms. P's mind and body in her healing and to minimize her physical and psychological pain.

Social Worker

Paige Hector, LMSW

Ms. Hector is a social work expert and a coeditor of this column.

The experience of pain transcends the physical realm and can impact us in many ways. Please refer to the story titled "Integrating Psychosocial Elements for Comprehensive Pain Management" by Paige Hector in this issue to learn more about the psychosocial aspects of pain management.

Director of Nursing (DON)

Judi Kulus, MSN, MAT, RN, NHA, RAC-MT, DNS-CT

Ms. Kulus has been a certified AANAC RAC-CT Master Teacher since 2004 and currently serves as the vice president of

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curriculum development for AANAC and AADNS, where she oversees and coordinates the associations' certification and educational content. She is chief nursing executive at Lantis Enterprises.

The nursing staff will focus on promoting Ms. P's well-being in a holistic, culturally competent way that is geared towards meeting her pain control goals.

After a thorough evaluation of the type(s) of pain Ms. P is experiencing (nociceptive, neuropathic, and/or psychogenic), her pain medication regime should be carefully implemented to titrate the medication, with close monitoring before and after administration using a pain scale. Identifying and effectively managing breakthrough pain is critical to reducing her pain. Due to her pain's severity and complexity, consulting with a pain clinic may be warranted. Nursing also will integrate nonpharmacological interventions such as distraction through music, hot and cold packs on pain sites, and massage therapy.

If Ms. P has increased anxiety, an anti-anxiety medication could be trialed. Another important aspect of pain management and overall healing is quality sleep. The ongoing pain may be disruptive to her circadian rhythm, so nursing will evaluate her sleep cycles and promote quality sleep to improve her coping abilities. Additionally, the nursing staff will encourage her participation in therapy to maintain her gains with activities of daily living, and nursing will monitor her effective bowel function, food intake, and psychosocial well-being.

Pharmacist

Nicole Brandt, PharmD, MBA

Dr. Brandt is a professor and the executive director of the Lamy Center on Drug Therapy and Aging at the University of Maryland School of Pharmacy.

Ms. P's pain is most likely neuropathic in nature, based on the description of "burning and nerve-like stabbing" in her hip. Her pain is complicated by the fact that she had an above-the-knee amputation, and pain is still noted around the incision line and is associated with swelling. A review of this case prompts several medication-related concerns:

1. There is a need to evaluate the use patterns of the oxycodone and to consider stopping this drug, especially in light of the gabapentin use. Additionally, this may help address some of her issues with constipation.
2. Her renal function seems to be normal, and it might be possible to consider an increase in duloxetine as a safe option to help with pain management. She is only taking 900 mg of gabapentin, and a dosage increase could be considered.
3. Her B_{12} level should be evaluated because she has been taking metformin.
4. It is not clear whether furosemide is clinically indicated. In light of her comorbidities (e.g., diabetes), a different class of medications such as angiotensin II receptor antagonists might be a good option for her blood pressure control.

*The IDT referenced the 2021 Clinical Practice Guideline *Pain Management in the Post-Acute and Long-Term Care Setting* from AMDA – The Society for Post-Acute and Long-Term Care Medicine.

Dr. Resnick is the Sonya Ziporkin Gershowitz Chair in Gerontology at the University of Maryland School of Nursing in Baltimore. She is also a member of the Editorial Advisory Board for *Caring for the Ages*.

Ms. Hector is an author, speaker, and educator specializing in diverse topics for the interdisciplinary team, trauma informed care, Nonviolent Communication, sustainable process improvement, and advance care planning. She is associate editor and a member of the Editorial Advisory Board for *Caring for the Ages*.

KEY POINTS

- The IDT certainly followed the Society's newly revised pain management clinical practice guideline (https://bit.ly/3Gr0Mld) and focused on careful assessment, diagnosis, and management of pain using nonpharmacologic and pharmacologic interventions.
- All IDT members consistently alluded to the challenges regarding pain management and the possibility of needing outside pain consultants in some situations, as is recognized in the pain management clinical practice guideline.
- The IDT members each bring a different focus to addressing pain for Ms. P. The medical and nursing focus is geared toward assessment and diagnosis of the pain and ongoing evaluation. The physical and occupational therapy and activities staff help with implementation of nonpharmacologic interventions, and social work supports the integration of psychosocial aspects of well-being and pain management. The pharmacist helps guide the options for pharmacologic interventions.
- The take-home points from the team members are consistent assessment and diagnosis as the critical first steps in pain management and the implementation of interventions and ongoing evaluation to achieve optimal pain control.