

CLINICAL NOTES

INNOVATIVE HEALTHCARE SOLUTIONS

Why is pain managed so poorly? Identifying common factors

By Brian K. Kerley, BSc, MD, CCFP, FCFP; and Colleen Bredin, BScN, RegN, MSN.

In most studies, from 30 to 40 per cent of patients in active treatment and from 70 to 90 per cent of patients with advanced disease report pain. This is not unique to North America. In France, 90 per cent of lung and colon cancer patients surveyed reported pain more than 25 per cent of the time. In the National Hospice Study in Britain (1,700 patients), 25 per cent had severe unrelieved pain within two days of death. So why is pain managed poorly? There are a number of factors to consider.

Patient factors

1. Reluctance to report pain. Reporting pain may have many adverse consequences for the client. It may mean “I am getting sicker” or “I am closer to death.” It also probably means that the doctor will order more uncomfortable tests or prescribe more medications that the client is reluctant to take.

In a recent survey of 1,300 oncology outpatients, 67 per cent had pain, of which 36 per cent had pain severe enough to impair function.

2. Reluctance to follow treatment recommendations—due possibly to myths about opiates, perceived or real consequences about their use, or because some of our treatment recommendations are unreasonable given the client’s status and ability.

3. Fear of addiction. Addiction is a primary, chronic, neurobiological disease, with genetic, psychosocial and environmental factors. It can be recognized by the four “Cs”: impaired control over drug use; compulsive use; continued use despite harm (consequences); and craving. Addiction must be dealt with appropriately.

Patients need to be reassured that they will not lose control of their lives to a drug, and that addiction will not occur, and they should not be told “not to worry about it,” which only takes control away from the patient and put it into the doctor’s hands.

4. Concern about side effects. This is quite legitimate in many cases, as side effects are real and must be dealt with pro-actively.

5. Belief that pain is inevitable and must be accepted. Some people feel that suffering is a virtue—sent by God—or don’t realize that death does not need to be a painful event.

6. Fear of disease progression. A patient may think, “If I don’t admit to having pain, I won’t have to deal with the realization that my disease may be worsening.”

Continued on page 10

Is your client ready for power? Switching from manual mobility

By Sheila Buck, BScOT, ATP, OT Reg (Ont); Kathryn Fisher, BScOT, ATS, OT Reg (Ont); and Brenlee Mogul-Rotman, BScOT, OTR, ATP, OT Reg (Ont).

For most wheelchair users, recapturing and maintaining independence is the most significant goal in life. Accepting more help or using more advanced equipment can be seen by some individuals as “giving up” or as failure. But it is hard to deny the fatigue and pain that may come from time spent pushing a manual wheelchair or walking with a wheeled walker. Switching to power mobility may be the way to maintain independence.

Considering client needs

A good wheelchair evaluation involves the assessment and consideration of many client factors, including physical, functional and lifestyle. These factors play a role in determining the prescription of manual versus power wheelchair frames. How do product design features meet specific client needs? How do you balance the client’s functional needs and wants with

Continued on page 11

INSIDE

Shedding light on SAD:

Treating this seasonal condition **4**

Obstructive sleep apnea:

Don’t lose sleep over it! **5**

Osteoporosis management:

Strategies for post-menopausal women **7**

Powered mobility

provision:
Best practices for service **9**

Prescribing paediatric power: Commonly asked questions

By Julianna Arva, MS, ATP

Q: When should a child start driving a powered wheelchair?

A. In short, as soon as possible. Ask yourself the question: What is the appropriate age for a child to be mobile?

Normally developing children start crawling at four to five months of age, they stand up at about nine months of age, and they will start walking at about 12 months. This means that most children have the perception of mobility and the directionality that are needed for locomotion. Consequently, assuming cognitive readiness and parental agreement, you can start as early as 11 to 12 months of age. There are plenty of examples of 12- to 18-month-old children successfully getting around with a power chair.

Q. How do I know that the child is ready to drive a powered chair?

A. You really don't until you try. Please, always assume that he can do it. There are some scales available to help you make decisions, and you can assess cause and effect, and perception and physical abilities through switch toys and other means. However, it is important to remember that consistency with a switch toy (or the lack thereof) does not directly translate into the ability to drive a chair. For a child, pressing a switch to activate a dancing doll or a singing elephant becomes boring after awhile. However, pressing a switch to move the chair provides vestibular input in addition to a constantly changing visual environment. Motion is very natural for everyone and is much more inspiring than activating a switch toy.

Q. Is there a minimum cognitive level for someone to successfully drive a chair?

A. Research has shown that many children who have been assessed to have an intelligence quotient (IQ) in the 50s and 60s can learn to drive. Many children with severe mental retardation (an IQ in the 20s and 30s) can walk—mobility is more natural than we often assume.

Q. My client is too young to understand a power chair. How can he drive?

A. Moving a powered wheelchair via a variety of input devices does not require any technical understanding. When a child walks, she develops a motor pattern to move herself from one point to another. During power wheelchair locomotion, the child only needs to develop a motor pattern similarly to walking, except the motor pattern will occur at the arm, hand or head.

Wheelchair driving should not be compared to automotive driving, but rather to other means of non-technical mobility, such as ambulation.

Q. Is it safe for a very small child to drive a power chair?

A. Is it ever safe for a very small child to be unsupervised? Of course, it's not. A small child will always be supervised by an adult, whether driving a powered chair or not. There are many ways to enhance safety in a wheelchair: turn (program) the speed down, place bumpers around the chair or therapy mats around the room, keep a kill switch in your hand during training, and so on. The level of safety you need to provide depends on the child's driving proficiency and experience. However, expect the child to make mistakes and plan accordingly.

Q. Will a child get lazy after driving a power chair?

A. Clinical experience and research shows that most children will not "get lazy" or lose gross motor function due to power wheelchair intervention. Rather, many children improve in their ambulation since they understand and have experienced the rewarding nature of movement. Many start exploring a much more intense lifestyle: they become class presidents and aids to mom in the kitchen, they gain self confidence and answer to more responsibilities, and they have more energy and stamina to participate in meaningful activities. It is

important to explain that the power wheelchair will not replace ambulation exercises but that it will provide functional mobility to complement continuing ambulation and therapy. This is similar to utilizing

both a gait trainer and a stroller, depending on the situation.

Q. I understand that my young client needs a power chair. How do I convince her parents?

A. Practitioners frequently run into this problem. In the case of a very young child, the parents are often not even ready to hear and accept the diagnosis. The mention of a powered wheelchair often "finalizes" the disability in their minds, and they may feel that they are giving up hope by accepting the device. It is our job as practitioners to enlighten parents about the enabling nature of these devices and to explain to parents that it will help their children to remain on track with their development.

There are several ways to accomplish your goal (although, we may not always succeed). The best approach is to let the parents see their child moving with a powered chair. Often, this will truly change the parents' minds, after they see their child being able to perform new activities. If a demo chair is not available or the parents will not allow trial of the equipment, have them talk to other parents who have been in similar situations and who can share their positive experiences. You can also show the parents consented videos of successful young drivers.

You can lend them some articles (such as this one), which are easy to digest and which help explain the importance of exploration. You can also relate analogies that an ambulatory adult can relate to (for example, "Imagine working five miles from your home. Would you want to drive your car or jog every morning? How would that affect your job productivity?")

Starting a child at a young age with powered mobility helps her develop an independent, confident personality.

Q. Why prefer power wheelchairs to manual wheelchairs?

A. Manual wheelchairs work very well for some children. However, they only work if they enable the child to transverse all the environments that he encounters throughout the day, without fatigue, pain or shortness of breath. Consider the child's stamina, range of motion, arm strength and daily routine. If a manual wheelchair will not fulfill all the needs in an efficient manner, consider powered mobility, which is a more functional alternative. In addition, put yourself in their shoes (that is, in their wheelchairs). A typical paediatric manual chair equals or exceeds the weight of the child occupying it. How efficient

would you be propelling a manual wheelchair of your own weight?

Q. What do we gain by starting someone in a power chair at a very young age?

A. Most importantly, you help the child develop an independent, confident personality. Think about all the children and teenagers you worked with whom have developed a dependent role in their families and have become accustomed to always asking others to complete their tasks. This behaviour is commonly referred to as "learned helplessness", which, believe it or not, actually develops by age four.

By providing independent, functional

mobility, you encourage the child to explore her environment independently, and learn to make decisions, assess situations and make natural mistakes, from which she will learn. Peer interaction is another important aspect and allows the child to participate in activities that enable her to become more integrated into society. This, in turn, will significantly contribute to her independence when she becomes an adult.

Researched articles have shown improved independence, self image, socialization, participation and quality of life among children due to early powered mobility intervention.

Julianna Arva, MS, ATP, is a Pediatric Product Specialist with Permobil Inc in Lebanon, TN.

Linda's corner

Linda Norton, Rehabilitation Education Co-ordinator at Shoppers Home Health Care, answers your seating and mobility-related questions.

Q I have a client with muscular dystrophy, and his arm is not supported well on his chair's armrest. He needs more support so that he can safely use the joystick to drive his chair. I think he may need something custom. Any ideas?

A The word "custom" can be associated with fear and dread, as there can be a concern that anything custom will also be expensive and time consuming. However, a custom solution is worth the effort if it increases a client's function.

In my experience, it is important to ensure that the client is appropriately positioned/supported in the wheelchair by their cushion and back support before any custom work regarding the extremities is considered. The client's upper extremity will shift in position depending on where their trunk is positioned.

Involve the sales representative by showing them where the client's arm needs to be positioned in space and by describing as many properties of the potential armrest as you can. For example, how soft does the armrest need to be? Does it need lateral walls? Does it need to swing out of the way? The sales representative can then record these details, develop a quote and work to have the armrest made for the client.



Linda

Q I've determined that my client needs a power wheelchair to meet her functional needs and goals. How do I determine whether or not she is safe driving this chair?

A The first thing to consider are your assessment results. Are there any deficits noted in your assessment that could impact the client's driving ability? If so, have these been addressed? Can the client compensate?

For example, if a client has poor vision in one eye but compensates by continually scanning her environment, this deficit has been addressed and is of less concern. When the deficits have not/cannot be addressed, there is an increased concern regarding driving safety. Many therapists and facilities have developed their own driving "tests" to determine driving ability. The only validated one of which I am aware is the Power Indoor Driving Assessment (PIDA). This assessment is helpful to identify areas where the client is having difficulty and thereby targets intervention. It does not have a numerical pass/fail score; however, the lower the score, the less safe the driving behaviour. (The PIDA is available through Barbara Skulko at Sunnybrook and Women's Health Sciences Centre. Call 416-480-6100 ext. 2564 or e-mail Barbara.Skulko@sw.ca.)

As always, it is important to document your assessment results and any restrictions you have recommended to ensure safe driving.

Contact Linda via phone **416-232-1706** or e-mail **lnorton@shoppersdrugmart.ca**

Shedding light on SAD: Understanding and treating this seasonal condition

By Michael Terman, PhD, and Joy Jacobs, JD.

When the days grow colder and shorter, millions of people with Seasonal Affective Disorder (SAD) get depressed. In recent years, SAD has become increasingly recognized by the medical community and the focus of many research studies. Meanwhile, drugs like Prozac (fluoxetine hydrochloride), Zoloft (sertraline hydrochloride), and Celexa (citalopram hydrobromide) have transformed the face of depression. Although medication may still be a treatment of choice for some kinds of depression, year-round drug therapy is unnecessary for SAD. While restricted fall and winter-time medication might be an option for SAD, definitive clinical trials are still pending and a major nonpharmacologic alternative has emerged. Indeed, it has now been established that bright light therapy is a safe and very effective treatment for winter depression.

Understanding SAD

So what is SAD? It is common for people to complain of feeling down, having less energy, putting on a few pounds and having a tough time getting out of bed in the morning throughout the dark, short days of winter. People suffering from SAD experience these and other symptoms to a degree that they can't function normally. They often feel chronically depressed and fatigued, perform poorly at work and may want to avoid social contact. They may experience substantial increases in sleep and irresistible carbohydrate cravings (for sweets, starches or both). Any individual, however, need not show all of these symptoms, and sometimes a symptom is actually the opposite of the norm, such as insomnia as opposed to excessive sleep. Short of a psychiatric diagnosis, a useful tool for preliminary self-assessment is the Automated Personal Inventory for Depression and SAD (see Resources), which scores symptom pattern and severity and provides individual feedback about whether a clinical evaluation is indicated.

Researchers are still investigating the

People suffering from SAD often feel chronically depressed and fatigued, perform poorly at work and may withdraw from social contact.

mechanism that makes light therapy effective for SAD. New data strongly indicate that bright light works to reset the body's circadian clock. In turn, the clock controls daily rhythms of body temperature, hormone secretion, sleep, alertness and mood. The pineal hormone melatonin is an important modulator of the daily sleep-wake cycle, and studies indicate that appropriately timed light exposure reduces melatonin "overshoot," which might make people susceptible to depression. We are not recommending melatonin supplements to alleviate SAD; rather, we are talking about the body's endogenous secretion pattern of the substance.

The popularity of light therapy

As light therapy has become accepted as a primary treatment for SAD, the opportunity for misinformation and shoddy treatment has unfortunately grown exponentially. Light boxes are currently being marketed directly to consumers, and many people are self-treating without adequate instruction, with minimal effect or even negative consequence. Some amateur assemblers, upon constructing their own light boxes, have suffered corneal and eyelid burns. As light therapy gains in popularity, reliable guidance becomes more crucial.

The occupational therapy, physical therapy and pharmacy professions have an important role to play, since many SAD sufferers are slow to seek a doctor's care and since many doctors are unfamiliar with the diagnosis and lack the experience or inclination to prescribe treatments other than standard antidepressants. Many people will

confide their malaise to suppliers and pharmacists and inquire about alternative remedies, whether or not they associate the problem with the season. Those suffering from fully syndromal SAD with major depression should be treated under the supervision of a mental health specialist or primary care physician. However, those with "sub-syndromal" symptoms can benefit from frontline intervention. Indeed, sub-SAD outnumbers SAD by more than two to one, affecting around 17 per cent of the population in the middle U.S. and southern Canada. The statistics are borne out by complaints to family, friends and co-workers.

The need for proper equipment

Well-designed equipment is essential for effective treatment. Tell-tale signs of poor design in commercial apparatus are excessive visual glare, significant U.V. radiation, exposed or poorly filtered light bulbs (creating visual "hot spots"), direct illumination from below the eyes (creating an aversive ski-slope effect) and small size (creating a restricted illuminated field). Battery-powered, head-mounted units have yet to be proven effective. One Nova Scotia company (see Resources) has gone to great lengths in following the design recommendations of clinical researchers and ophthalmologists. Their most recent unit, which was pre-tested at Columbia University Medical Center in New York, incorporates a specialized smooth diffusion screen with virtually complete U.V. filtering, high-output fluorescent lamps (with dampened blue output and comfortable hue) and illumination from above the head.

A key to efficacy is to orient the head and body forward, concentrating on activities on illuminated surfaces. Rather than looking directly into the lights, users gaze downward during treatment and engage in other activities (like reading, writing or having breakfast). The best-established treatment protocol uses early morning light at 10,000 lux for approximately 30 minutes daily for the average case. Light intensity is a critical dosing dimension of the therapy: systems deliver varying amounts of light, and people vary in their response. Dosing



For a copy of our new 64-page catalogue, call **1-800-746-7737 (SHOPPERS)** or visit our website at **www.shoppersdrugmart.ca**, click on "Shoppers Home Health Care," and then click on "Get your free catalogue."

is similar for SAD and sub-SAD; milder depression should not imply that a lower light dose will be sufficient.

Optimum treatment times

The time of day also is a crucial factor in treatment. Winter depression usually responds best to treatment immediately upon waking. Nevertheless, each individual needs to determine the optimum time of day for light exposure. New research shows an overall enhanced response when treatment is initially scheduled about 8.5 hours after the pineal gland begins to secrete melatonin in the late evening. A shift in circadian rhythms is key to this benefit. In essence, the body clock, not the clock on the wall, should dictate the treatment schedule. In lieu of complicated melatonin measurements, users can estimate their individually optimum time for light therapy using the *Automated Morningness-Eveningness Questionnaire* (see Resources).

Most new light-therapy users notice marked improvements within a few days of treatment; others usually respond within one to two weeks. Indeed, light works faster than most anti-depressants, which makes us think we're getting to the "heart" of the syndrome.

Side effects of bright light therapy have been minimal. While a small minority of patients has experienced headache, eyestrain or nausea at the start of treatment, these "side effects" are usually mild and subside quickly. Of greater concern is eliciting a hypomanic response in people with a history of bipolar swings in spring or summer. Guidance from a skilled clinician is especially important in this

situation, and patients with Bipolar I disorder should use light therapy only in conjunction with a mood stabilizing medication.

The power of light may very well extend beyond treatment of SAD. Especially encouraging is the use of morning bright light therapy for difficulty with falling asleep at the desired bedtime. In the Delayed Sleep Phase Syndrome, night-time energy and alertness are high and the onset of sleep is involuntarily very late (for example, 3:00 a.m.). Attempts at sedation with benzodiazepine drugs often fail and present risky dependency problems. More commonly, the insomnia lasts only about an hour, but remains troublesome because of difficulty waking for work the next morning. By contrast, people who fall asleep and wake up too early—a problem common among the elderly—may benefit from evening light exposure. Additional treatment possibilities are underscored by the recent completion of clinical trials of bright light therapy for premenstrual depression, depression during pregnancy and chronic, nonseasonal depression.

People with sub-SAD or mild insomnia can consider self-treatment with proper instruction. Public information for both the lay public and professionals—including treatment resources, clinical assessment tools and an Ask the Doctor forum—are provided by the Center for Environmental Therapeutics (see Resource), a non-profit professional agency.

Michael Terman, PhD, and Joy Jacobs, JD, are with the New York State Psychiatric Institute, Columbia University Medical Centre, in New York, NY.

Resources

Screening instrument for seasonal depression

Automated Personal Inventory for Depression and SAD (AutoPIDS). www.cet.org.

Suppliers of recommended apparatus

Canada: UpLift Technologies, Inc. daylight@up-lift.com. www.day-lights.com.
U.S.: The CET Store of the Center for Environmental Therapeutics. info@cet.org. www.cet.org.

Individualized treatment timing

Automated Morningness-Eveningness Questionnaire (AutoMEQ). www.cet.org.

Public and professional information

The Center for Environmental Therapeutics website has information for the lay public and professionals. Description of treatment options, guide to the literature, collection of clinical assessment tools for diagnosis and treatment evaluation, and a forum with questions and answers of general interest are among the site's many features. www.cet.org.

Obstructive sleep apnea: Don't lose sleep over it!

By Lori Davis, BSc, RCPT(P), RPSGT

For those of us who get enough sleep and wake up rested, sleep disorders are not something we often think about. However, medical experts now believe that sleep problems are epidemic in our society, as one in four Canadians suffers from sleep problems that affect the ability to function at home and at work.

A common sleep disorder

Obstructive sleep apnea (OSA) is one of the most common disorders that rob us of quality sleep. The clinical features of OSA are not new (they have been described by many authors, including

Charles Dickens in his novel *The Pickwick Papers*.) What is new, however, is the recognition that the disorder is often associated with conditions such as depression, hypertension, cardiovascular disease, sexual dysfunction, memory impairment and intellectual deterioration.

Approximately four per cent of middle-aged men and two per cent of middle-aged women suffer from symptoms of OSA, which impair daily function. OSA occurs when the muscles that control the tongue and soft palate relax and completely or partially occlude the airway. The result is periodic stoppages in breathing (apneas) or

reductions in breathing (hypopneas) that last at least 10 seconds and may occur from five times an hour to once or twice a minute during sleep. These events may be associated with cardiac arrhythmias, transient reductions in oxygen saturation and, most frequently, arousals from sleep. Although these transient arousals fragment sleep, they restore normal muscle tone to the upper airway, which opens the airway and allows normal breathing to resume.

Consequently, many people with OSA complain of not feeling refreshed upon awakening

Continued on page 6

Sleep apnea ... continued from page five

in the morning and of feeling excessively sleepy during the day. As the arousals from sleep are usually very brief (less than 15 seconds in duration), most people are unaware that their sleep is being disturbed, and they either ignore the daytime symptoms or blame them on other factors, such as stress. Frequently, bed partners of people with sleep apnea recognize the annoying nocturnal symptoms of snoring, choking or gasping and periods of apnea during sleep, and encourage their loved ones to seek medical help.

Beyond physiological consequences

The dangers of this condition go beyond physiological consequences. The chronic sleep deprivation associated with OSA also increases the risk of traffic and industrial accidents.

Sleep apnea is more likely to occur as we age. Our airways become more compliant and the muscles supporting the airways weaken, making the pharyngeal airway more susceptible to collapse. Sleep apnea is also more likely to occur in those who are obese, especially in people with large neck circumferences (the fat accumulation results in a narrowing of the airway). The transient hypoxemia and the increased work of breathing, which causes large swings in intra-thoracic pressure during the apneas, predispose people with sleep apnea to heart disease, hypertension and stroke. The chronic sleep deprivation means that people with OSA also face an increased risk for depression. These are all compelling reasons to seek help for this disorder!

Treatment options available

There are many treatment options, all of which

should include lifestyle modification; weight loss is the most important factor. In fact, sleep apnea may be abolished in some people through weight loss alone. Behaviour modification—such as regular exercise, smoking cessation, avoidance of alcohol and sedatives at bedtime and sleeping on your side—may reduce the severity of OSA.

Resources

For information on how to help your patients better manage their sleep apnea, visit The Lung Association's Sleep Apnea Resource Centre at www.lung.ca.

The most common treatment is Continuous Positive Airway Pressure (CPAP), which splints the upper airway open by delivering a pressure of air between five and 20 cmH₂O via a nasal or full face mask. The exact pressure required by the CPAP machine to maintain patency of the airway throughout the night is determined by titrating the pressure during a sleep study. The pressure is started at a low value (approximately five cmH₂O) and increased during sleep. This helps researchers determine the minimum pressure required to keep a person's airway open throughout the night. Keeping the pressure as low as possible increases compliance, as higher pressures are more difficult to tolerate. Heated humidity is usually also prescribed to help prevent nasal stuffiness and dryness in the mouth.

OSA can also be alleviated with an oral appliance. Usually created by a dentist, this is a custom apparatus that is worn during the night. By advancing the lower jaw, it increases the cross-sectional area of the pharyngeal airway, thus reducing the likelihood of apneas occurring. This device is frequently adjustable so that the jaw can be advanced by different amounts. It is

most successful in people with mild to moderate sleep apnea and in those who are not morbidly obese.

Additional solutions

There are also surgical options, such as removal of tonsils and adenoids as well as conventional surgery to remove soft tissue surrounding the airway. Uvulopalatopharyngealplasty (UP3) is performed by a surgeon who removes the uvula and some of the soft tissue at the back of the throat. This procedure is often successful at reducing or abolishing snoring, but has limited success in the treatment of OSA, in which the airway is often partially blocked by the tongue. Laser-assisted uvulopalatopharyngealplasty (LAUP) can be performed in a doctor's office by a qualified physician but usually requires several treatments to be considered effective. Again, this treatment is most effective in reducing snoring and has limited success in the treatment of sleep apnea.

There are pharmacologic therapy options that directly manage sleep apnea by stimulating upper-airway muscle activity, suppressing REM sleep and influencing respiratory control centres in the brain (Medroxyprogesterone). The success of these agents is frequently limited by their potential side effects.

OSA can have devastating physiological and psychological consequences if left untreated. While it may be a prevalent disorder in our society, there are many treatment options available. It is truly not worth losing sleep over!

References available from the author upon request.

Lori L. Davis, BSc, RCPT(P), RPSGT, is the Manager, Respiratory Diagnostic and Evaluation Service, West Park Healthcare Centre in Toronto, ON. She can be e-mailed at Ldavis@westpark.org.

Free subscription!

Featuring informative articles written by your health care peers, *Clinical Notes* is full of the practical information that you can use in your daily practice. Order your free subscription to *Clinical Notes* today.

Fax: 416-491-7316 or

E-mail: kalias@shoppersdrugmart.ca

(subject heading: *Clinical Notes* subscription)

Yes! Please start my complimentary subscription to *Clinical Notes*.

NAME _____

OCCUPATION _____

ORGANIZATION _____

ADDRESS _____

CITY _____

PROVINCE _____

POSTAL CODE _____

TEL _____

FAX _____

E-MAIL _____

Clinical Notes is published quarterly by Shoppers Home Health Care.

Osteoporosis management: Strategies for post-menopausal women

By Moira A. Petit, MSc, PhD; Heather A. McKay, PhD; and Karim M. Khan, MD, PhD.

Prevention and treatment of osteoporosis is one area of health research that has focused on women largely because of the rapid bone loss and increased fracture risk associated with menopause (see Figure 1 for other risk factors). Projections suggest that one in three women in North America will suffer an osteoporotic fracture by age 65, and age-adjusted hip fracture rates are expected to increase over the next decade.

Can bone loss be prevented?

Most commonly, osteoporosis “prevention” has been aimed at slowing bone loss associated with menopause through hormone replacement in postmenopausal women. However, low bone density associated with osteoporosis is a function not only of age-associated bone loss, but also the proportion of the genetically predetermined peak bone mass attained during the growing years. Osteoporosis, therefore, may begin early in life when optimal bone mineral accretion is critical to the attainment of a healthy adult skeleton.

Mechanical loading of bone through physical activity and sport-specific exercise is one strategy for postmenopausal women to maintain bone mass and/or slow bone loss.

Evidence for a beneficial effect of physical activity comes from epidemiological, laboratory and exercise studies. Epidemiological studies of large populations show that women and men who are most physically active have either higher bone mineral density (BMD) or a lower risk of fracture. The type of exercise that is most osteogenic (bone forming) is high in magnitude and unusual in distribution such as gymnastics, jumping or rope skipping.

What are the effects of menopause?

Bone loss at menopause is closely linked to the decreased ovarian function and lower levels of estrogen and progesterone. Hormone-dependent bone resorption increases the accelerated rate of bone loss during the first five or 10 premenopausal years and is thought to be the primary contributor to the development of osteoporosis. There is, however, tremendous variability in rates of bone loss.

Exercise intervention studies aimed at

increasing bone mineral density (BMD) or slowing loss have largely targeted postmenopausal women, and there is now a large body of literature in this age group. In a recent meta-analysis of 18 intervention studies in postmenopausal women, Berard and colleagues reported no overall effect of exercise intervention on BMD at the hip or spine. However, when only those studies from 1991 and later were included, there was a significant effect of exercise at the spine, but not the hip. The authors suggest the exercise in more recent studies included higher loads than earlier studies. This supports studies that show a higher intensity of walking exercise is necessary for a beneficial effect on BMD in postmenopausal women. Hatori and colleagues reported an increase in lumbar BMD with very fast (7.2 km/h) walking (performed at cardiovascular workloads greater than the anaerobic threshold), and no effect on BMD with slower walking (6.2 km/h—below anaerobic threshold). Martin and Notelovitz also observed that walking at less than 6.4 km/h did not increase lumbar BMD.

Despite the careful meta-analysis, Berard and colleagues failed to separate those studies that specifically placed high loads on the hip or spine and measured BMD at those sites. Several studies

do show a benefit of exercise on hip or spine BMD when those sites are targeted. Studies where higher impact exercises targeted the spine showed a 0–5% increase in spinal BMD and studies of high impact at the femoral neck demonstrated a 0–3.5% increase. A loss of BMD was consistently demonstrated in sedentary or normally active controls.

Exercise programs that were primarily aerobic in nature, such as low-impact aerobics, walking or jogging, prevented bone loss in most cases. The benefit of exercise appears to be lost when training stops in this age group, although more follow-up studies are required to adequately support this contention.

Is exercise effective?

Bone loss during the postmenopausal years is inevitable. The role of exercise during this phase of life appears to be to either stay or diminish the rate of loss. Despite the large body of literature in the area, the optimal intervention program for impacting bone in postmenopausal women is still somewhat unclear. Generally, both aerobic and strength programs show only small increases, or decreased loss, in hip or spine BMD in postmenopausal women.

Overall, exercise intervention effectively decreases bone loss in postmenopausal women, but gains in BMD have not been shown to occur. The main role of exercise in postmenopausal women may be to increase functional mobility and decrease risk of falling.

Moira A. Petit, MSc, PhD, is currently an Assistant Professor at the College of Medicine at Pennsylvania State University. Heather A. McKay, PhD, is an Associate Professor, Faculty of Medicine, at the University of British Columbia (UBC). Karim Khan, MD, PhD, is an Assistant Professor in the Faculty of Medicine at UBC.

Adapted from chapter six of “The health benefits of physical activity for girls and women: Literature review and recommendations for future research and policy,” an on-line report of the BC Centre of Excellence for Women’s Health, Vancouver, BC. The full research study is available at www.bcccewh.bc.ca.

FIGURE 1

Common risk factors for osteoporosis

- Female sex
- Advancing age
- Asian or Caucasian ethnicity
- Family history of osteoporosis
- Endocrine disorders
- Amenorrhea due to menopause or hypothalamic amenorrhea
- Anorexia nervosa
- Inactivity or non-weight-bearing exercise
- Bedrest with no weight-bearing
- Low calcium or vitamin D intake
- High alcohol and/or caffeine consumption

Aging in place: A patient-focused approach

By Mitzi Grace Mitchell, RN, BScN, BA (Soc), MHSc, MN, DNS (c), DHA (c), GNC (C).

"I don't want to move to another unit. This is my home. I know everyone here." These are the words of a person who wants to age in place and not relocate.

Often elders are placed in units which, in the opinion of health care professionals, best meet their physical and cognitive needs. On July 1, 1996, the Minimum Data Set (MDS) component of the Resident Assessment Instrument (RAI) was mandated for all Ontario institutions with chronic care beds. The MDS is used to classify resident needs. Based on the score results of the MDS, residents are often located to nursing units according to these needs. This system is primarily based on the physical and cognitive "heaviness" of persons.

Objectives and outcomes

Improving elders' quality of life is the prime objective of this article. It is anticipated that elders who age in place will have decreased stress, feel in control over their environments, feel more at home, have increased autonomy and be more able to speak about how aging in place enhances their quality of life than elders who relocate according to a change in health status.

Elders who relocate often find the transfer from one place of residence to another very stressful. The relocation process may result in feelings of loss of control, uncertainty, unpredictability, helplessness and/or death.

When elders age in place, their health and quality of life would not be as adversely affected. Elders would not move locations when their physical or cognitive care needs change. The expected outcomes of this process include higher levels of satisfaction related to quality of life and less risk of adverse effects resulting from relocation and its accompanying stress.

Effects of relocation

As defined in this paper, aging in place is limited to intra-institutional relocation: when an elder moves from one room or unit to another within an institution.

The literature suggests that elders who relocate may experience stress, uncertainty, feelings of loss of control, unpredictability or helplessness. Aging in place is an alternative to relocation and

an area for gerontological nursing researchers to explore further.

The primary impetus for change within hospitals is patient satisfaction with health care delivery. Patients and families want to be partners in decisions affecting their health, and patients wish to be respected and listened to when they speak about their concerns and priorities. In the present system, the patient's desire to age in place is sometimes not heard by health care professionals.

Elders who age in place will have decreased stress, feel in control . . . , feel more at home, and have increased autonomy.

Aging in place is based on the philosophical underpinnings of patient-focused care (PFC). It is centred on involving patients and families in decisions that are important to them and on involving patients in their own care-planning needs. PFC views the patient as the expert of their health. This philosophy defines health from the person's perspective where nurses value the lived experiences of others.

The importance of quality of life

Much of the research on the quality of life of elders has occurred in institutional settings. Lawton (1983) cites four aspects of a good life: psychological well being, perceived quality of life, behavioural competence and an objective environment. Fletcher, Dickinson and Philp (1992) write that quality of life "encompasses all aspects of human life: material and physical components, social, emotional and spiritual well-being."

Aging in place reflects the values of continuity of care, excellence, collaboration, accountability, respect and empowerment. Continuity of care is seen through continuance of primary nursing in aging in place settings. Excellence is accomplished through innovative approaches to patient care, work life, research and education. Collaboration is seen through partnerships, communications and teamwork.

Accountability is demonstrated through the commitments made to patients, families and the community. Respect promotes the diversity of opinions, traditions and experiences. Finally, empowerment is committed to hearing patient's concerns.

The Sunnybrook model

This model of nursing care delivery is consistent with Sunnybrook and Women's College Health Sciences Centre (SWCHSC) core values: excellence, collaboration, accountability, respect and empowerment. This model supports the forming of the nurse-patient relationship so that both staff and patients may experience greater satisfaction and quality of life. The model empowers nurses by recognizing their contribution to quality care through knowledge they have with patients. Nurses have more opportunity in patient-focused care-delivery models to know the needs, concerns and wishes of patients and families. The model also empowers patients to participate in care decisions in an environment that respects their needs and concerns. Patients are more likely to share their concerns and to discuss plans and options with a staff nurse who has established a relationship based on respect, trust and effective communication.

Understanding the "wholeness" philosophy

Patient-focused care is about viewing people as changing human beings with unique health care needs and not as diagnoses or problems. This philosophy is based around the wholeness of people and the concerns, priorities, wishes, needs and expectations that people identify as important to their health.

The premise of aging in place is consistent with this view of continuity of care. Nurses, along with other members of the health care team, will be providing care to elders as they progress along their life course. The concept of continuity of care will be maximized with the application of this proposal.

Evaluating aging in place

Evaluation of aging in place will be evidenced by the voices of the residents and families we

serve. It is hypothesized that elders aging in place will have better quality of life than those who relocate. The resident assessment protocols from the MDS may be used to determine changes in health status.

This article is a call for leaders in long-term-care settings to consider aging in place as

an alternative to relocation. It is also a call for further research to explore this approach, which, so far, has received little attention from the nursing academic community. Using a patient-focused care approach, elders would have the opportunity to be heard if their preference was to age in place instead of relocate.

References available from the author upon request. Mitzi Grace Mitchell, RN, BScN, BA (Soc), MHSc, MN, DNS (c), DHA (c), GNC (C), is a Professor in Nursing at York University and the Long Term & Veterans' Care Directorate at Sunnybrook & Women's College Health Sciences Centre in Toronto, ON. She can be reached at mitzi.mitchell@rogers.com

Powered mobility provision: Best practices for service

By Mark R. Schmeler, MS, OTR/L, ATP

Powered mobility devices (PMDs), including power wheelchairs and scooters, improve the functional capacities of people who cannot safely or effectively ambulate or propel manual wheelchairs. Matching a person with the most reasonable and appropriate device is paramount in ensuring a successful outcome. An improper assessment of a user's need is a major reason for abandonment of PMDs and other assistive technologies.

It is essential to conduct a careful and methodical evaluation of a potential PMD user. The first step to proper provision is a thorough evaluation of the client. During this stage, you'll collect the following client data: medical diagnoses, insurance, client problems, and current equipment and other technologies used. You will also examine the client's goals, physical function and abilities, environmental accessibility, and mobility and transportation resources.

Focus on client needs

Find out everything you need to know about your client that will affect his access to, use of and need for intervention. Knowing what other equipment the client uses will help you determine the client's tolerance for technology and what has or has not worked in the past. It also helps in the need for integrating other components into a wheelchair system. Integration of other assistive technologies (such as access to a computer, communication device or access within a modified van) is needed so that there is a functional outcome.

Also, find out what is important to your client. It is the gaps between abilities and goals that PMDs fill. The ability to fulfill a life role is very important to an individual and is where most feel-

ings of life satisfaction come from. Look at how the client interacts with his environment. If the PMD needs the support of a caregiver, then it is important to know about the client's living situation. If transportability in the trunk of a car is a top priority, then portability might override durability.

When assessing for a personal mobility device (PMD), find out what is important to your client. A PMD should fill the gaps between abilities and goals.

Research on how useful PMDs are is beginning to emerge in the scientific literature, and there is also a lot of research about abandonment, which occurs with 60 to 70 per cent of all assistive devices. Though there are many reasons for abandonment, it is often due to poor assessment of client needs.

There are many aspects to the proper assessment for a PMD, including many variables—a few of which I've described below—which are based on consensus among practitioners in the field and my own clinical experience.

Functional considerations

Height and weight alone are not indicators to determine seating and positioning needs. Joint range of motion—especially at the hips and knees as well as pelvic and spinal alignment—will determine the proper configuration and postural supports of a seating system. Imagine an older person with an arthritic hip that cannot be flexed more than 60° sitting in a chair with a close to 90° seat-to-back angle.

You'll also want to consider the risk for and presence of skin breakdown during proper seat

cushion selection. There are dozens of pressure-relieving cushions on the market, and each cushion has advantages and disadvantages that need to be carefully evaluated. Inappropriate seat-cushion provision can lead to costly pressure sores and affect postural alignment and ability to transfer in and out of the chair. Features such as tilt-in-space and reclining back systems need to be considered for a client who cannot physically adjust or reposition, to reduce the potential for postural deformities, discomfort and skin breakdown.

The nature and progression of the underlying disease also needs to be well understood. A PMD needs to accommodate alternative controls if the user will not be able to operate a proportional joystick and needs to accommodate the addition of features, such as tilt or recline, as the condition progresses.

Driving ability

A PMD is a heavy piece of equipment capable of reaching high levels of momentum, thus creating trajectories that can cause serious property damage, injury and even death. Therefore, your client's ability to operate heavy equipment needs to be carefully assessed, especially when cognitive or perceptual deficits are present. A client with these deficits should also never be precluded from the use of a PMD; however, he may require remedial training to learn how to operate the device, further adaptations to use the device, or need to limit the use of the device to certain environments or situations where he feels comfortable or safe using it.

Environmental accessibility

A home assessment is often needed to ensure that the device will be compatible. This involves

Continued on page 10

Powered mobility ... continued from page nine

taking the device to the home, surveying the environment for accessibility and having the potential user get into the device and drive it where he may travel within his daily routine. PMDs cannot be readily carried up stairs, negotiated through narrow doorways or make tight turns in a hallway or bathrooms.

During the home assessment, have your client complete specific tasks that he will need to perform from the device. The assessment also needs to appreciate that a client may not perform well at first and might need some remediation. As he may be caught up in the euphoria of possibly getting a PMD, the client may not consider certain vital activities and, after the novelty wears off, he may identify factors that render the device impractical.

Transportation

Due to advertising, consumers sometimes have a sense that PMDs can easily be placed in a vehicle. Although this is somewhat possible, the physical capabilities of the person stowing the device needs to be considered. Often, the person is an elderly spouse with her or his own physical limi-

tations. If transporting the PMD is essential, the person who will be conducting the task should be given the opportunity to complete the process to verify that it will be feasible.

If a client will be using an accessible vehicle such as a van with a lift or ramp, he will need to drive the device into the vehicle, manoeuvre it into an appropriate position for securement or transfer to another seat, and then exit the vehicle. It is very crucial to consider a device that has the appropriate attachment points to ensure optimal safety during transportation.

Fittings

Once a thorough assessment has been completed, then it's time to secure funding and order and fit the PMD. Fitting may involve several sessions and alterations to achieve an optimum user interface. Oftentimes, there will be goal or status changes, particularly if there is a long time between PMD order and delivery. All parties involved—manufacturers, suppliers, therapist and client—need to be flexible and accommodating. It is important to remember that the first session is just a fitting; anything that is not quite right can be adjusted.

Follow-up

After completing a successful fitting, you'll want to ensure that the client's needs have been met and that he is safely using his PMD. This is particularly important when the client has a progressive condition, such as ALS or multiple sclerosis. Patients with progressive conditions usually do not call unless they have a problem. Follow-up lets us know how clinical services are doing and how the equipment is working.

PMDs cannot be arbitrarily provided without a proper assessment that carefully considers several variables related to the client and issues related to the environments and transportation resources. By conducting a thorough assessment and a successful fitting and follow-up, you will ensure that your client's needs will be met through the provision of a PMD.

References available from the author upon request.

Mark R. Schmeler, MS, OTR/L, ATP, is the Director of the Center for Assistive Technology, University of Pittsburgh Medical Center, and an Instructor in the School of Health and Rehabilitation Sciences, University of Pittsburgh, Pittsburgh, PA. He can be e-mailed at schmelerm@upmc.edu.

Why is pain ... continued from cover

7. Fear of injections. Nobody likes to be poked with sharp objects, and, furthermore, it is often not necessary.

Clinician factors

1. Failure to appreciate the severity of the pain. If professionals don't ask, we won't know how much our client is suffering, and we won't intervene appropriately.

2. Poor physician and nursing assessment. If we are interested in helping our clients feel better, we need to take an appropriate pain history, using open-ended questions without attached value judgments. We need to know the locations of the various pains a client may have, and for each, the descriptors of the pain sensation. We need to know the mode of onset and offset of the pain, what aggravates and what relieves the pain, the quality of the pain (sharp, dull, burning, numbing, aching, etc. [in the client's own words if possible, without suggestions from us]), radiation of the pain, severity and timing. We also need to know what has been tried, what it currently being used or taken, and what has or hasn't worked.

3. Knowledge deficits in pain management. There is nothing wrong with not knowing about something, provided that you know where to find answers and that taking the time to read this article is a good first step. Try and convince your peers to learn more too.

4. Failure to recognize or acknowledge these deficits and refer to those with more skill. (A bigger sin than number three above.)

5. Failure to consider the concept of total pain. Total pain (or total suffering) is a concept which includes more than just the somatic source of the pain, but takes into account the whole milieu in which the client finds him/herself. The most effective approach to a patient's pain will include consideration of all the factors underlying "total pain":

- somatic source
- patient's emotional status
- patient's personality
- the family
- caregivers
- patient and family ecology

6. Failure to effectively utilize the team approach to care. The multidisciplinary palliative care team

is crucial to the effective provision of pain and symptom management and psychosocial/spiritual support to the dying patient and their family.

7. Failure to trust the patient's assessment of their pain. Pain is "what the client says it is." This is a leap of faith for many professionals; that is, to trust our client's assessment of something that we can not directly measure and then to have the courage to intervene (by prescribing a strong opioid). Furthermore, the client may not "look like" they are in pain.

8. Failure to recognize the picture of chronic distress. Acute pain presents as psychomotor agitation with signs of adrenergic excess. Chronic pain looks more like depression, with flat affect, poor eye contact and psychomotor retardation.

9. Failure to refer to palliative care early in the illness trajectory. It is generally felt now that palliative care should be introduced early in the disease process, as symptom management does not need to wait until a specific point is reached where "active" care ceases. This outmoded view of a sudden point where active care stops and

Continued on page 12

Ready for power ... continued from cover

theoretical concerns for basic and essential needs? Establishing a list of priorities and goals is essential in developing a wheelchair prescription that addresses such concerns.

Common physical concerns that may increase the likelihood of power prescription include changes in range of motion, muscular strength, breathing capacity, repetitive strain and upper vs. lower extremity function. Some functional concerns may include sitting endurance/tolerance, self care/ADL skills, comfort and transfer skills. Meanwhile, the client's lifestyle may be affected by transportability of the equipment, maintenance/cleaning, cost effectiveness, accessory accommodation and aesthetics. Other environmental issues may include climate/environmental barriers; capacity of the caregiver; and school, work and leisure accessibility. It is also important to consider future postural deformity and growth adjustability.

Power mobility goals

Numerous factors will impact an individual's decision to choose power mobility instead of, or following, manual wheelchair use. These include decreased strength or function, reduced mobility or activity, increased pain, skin breakdown, and changes in caregivers and/or environment. Additional considerations may include the following:

- Enhancement of social skills—taking control over the environment, decision making for encounters, self-esteem, responsibility
- Enhancement of cognitive skills—cause and effect, judgement, decision making
- Joint protection and pain management
- Energy conservation
- Compensation for limb dysfunction
- Reduction of associated reactions from increased stimulation during manual wheelchair propulsion
- Early enhancement of visual/perceptual skills such as object permanence, spatial relations, distance and directions.

Scoters

Your client may use a scooter to increase independence and conserve functional energy if they have one or more of the following impairments: arthritis, heart condition, breathing difficulties, leg vascular difficulties, obesity, lower leg ampu-

tation or degenerative disc disease.

It is important that trunk stability, skin integrity and transfers are assessed to determine ability to access and sit on a scooter, as these may be determining factors in "prescribing up" to a power wheelchair.

Many factors will impact an individual's decision to choose power mobility instead of, or following, manual wheelchair use.

Energy conservation is significant when energy can now be spent on alternate tasks other than walking. Independence to complete functional tasks, such as laundry, grocery shopping and work duties, makes a significant improvement on one's outlook on life and sense of well-being. It is important to remember that scooters are motorized units; therefore, the client's perceptual, cognitive and driving skills must be assessed by a therapist prior to a scooter's use.

Power assist

Power assist allows an individual to remain in their manual wheelchair while experiencing the benefits of a power product. By staying in the manual chair, the client's seating and posture will remain unchanged and the transition to the new device may be faster and easier. Some of the therapeutic benefits of power assist include maintenance and improvement to the cardiovascular system, reduced strain on muscles and joints, prevention and reduction of carpal tunnel syndrome and other repetitive movement syndromes, and prevention of deformity and skin breakdown from improper positioning resulting from strained propulsion with power assist.

In addition, there are the psychological benefits of using a manual wheelchair instead of a power chair, not to mention energy conservation, improved functional ability, community integration and an enhanced quality of life.

If your client has one or more of the following impairments, he or she may require power assist: strain and difficulty when propelling a manual wheelchair, loss of energy throughout the day, deteriorating conditions, conditions that require energy conservation, soft tissue injuries related to overuse, weakness and fatigue,

and the ability to propel for short distances or on flat surfaces only.

The client will have already been assessed for the appropriate manual wheelchair and seating system, and stability and balance in the manual wheelchair will have been considered. However, perceptual/cognitive status and safety issues must be assessed separately from the propulsion of a manual wheelchair. Other considerations include portability and weight of the overall system, propulsion once the power is off, charging the system, access issues (e.g., ramps, elevators, vehicles) as power assist will add weight to the wheelchair, compatibility with the type of manual wheelchair, and access to on/off and speed settings.

Power wheelchairs

Consideration of a power wheelchair begins when the client's needs are not felt to be appropriate for a scooter or power assist, or when the client's needs are no longer being met by the power product that they are currently using. In addition, clients who are identified as being in need of specialty switch options, power positioning or fully programmable electronics should automatically be considered for a power wheelchair. Perceptual/cognitive status and safety issues must be assessed. Considerations when prescribing a power chair may include the following:

- Frame style: folding vs. power base
- Drive wheel position: centre vs. front vs. rear
- Electronics—programmable and modifiable
- Battery size and longevity
- Accommodation of frame to power positioning
- Access issues (i.e., hallways, ramps, elevators).
- Van lift and interior space
- Access to controls
- Compatibility with seating and accessories

In summary, when considering the prescription of a power product, you should assess each client individually. Postural evaluation—including a mat assessment and evaluation of skin integrity, strength, coordination, tone, associated reactions, balance and sensation—must be completed. In addition neuropsychological functioning, including cognitive/perceptual/visual, insight, ability for new learning/relearning, and safety should be all part of your thorough assessment.

Sheila Buck, BScOT, ATP, OT Reg (Ont), is with Therapy NOW! in Milton, ON; Kathryn Fisher, BScOT, ATS, OT Reg (Ont), is with Therapy Supplies and Rental in Toronto, ON; and Brenlee Mogul-Rotman, BScOT, OTR, ATP, OT Reg (Ont) is with Toward Independence in Richmond Hill, ON.

The article, "Telehealth and wound care: An interdisciplinary experience," which appeared in the Summer 2004 issue of *Clinical Notes*, was adapted with permission from the Vol. 2, No. 1, issue of *Wound Care Canada*. © 2004 Canadian Association of Wound Care.

Why is pain ... continued from page ten

palliative care begins could be replaced by a continuum of decreasing active treatment and increasing palliative focus as time goes on, but of course many different models are possible.

Institutional factors

1. Lack of a language of pain. We must learn to talk to each other in standardized ways to effectively communicate about our clients' needs.

2. Failure to use validated tools to measure pain. The simplest are as follows:

a. **Numerical (0-10)** "If zero represents no pain, and 10 is the worst pain you can imagine, how strong is your pain right now?" "How strong is it at its worst?" "At its best?"

b. **Visual analogue.** On a 10 cm line, mark an X where your pain is. The left end of the line is no pain, the right end is the worst pain imaginable. _____

c. **Faces.** A useful scale for the cognitively impaired population which relies on matching facial expressions of the client with standardized pictures.

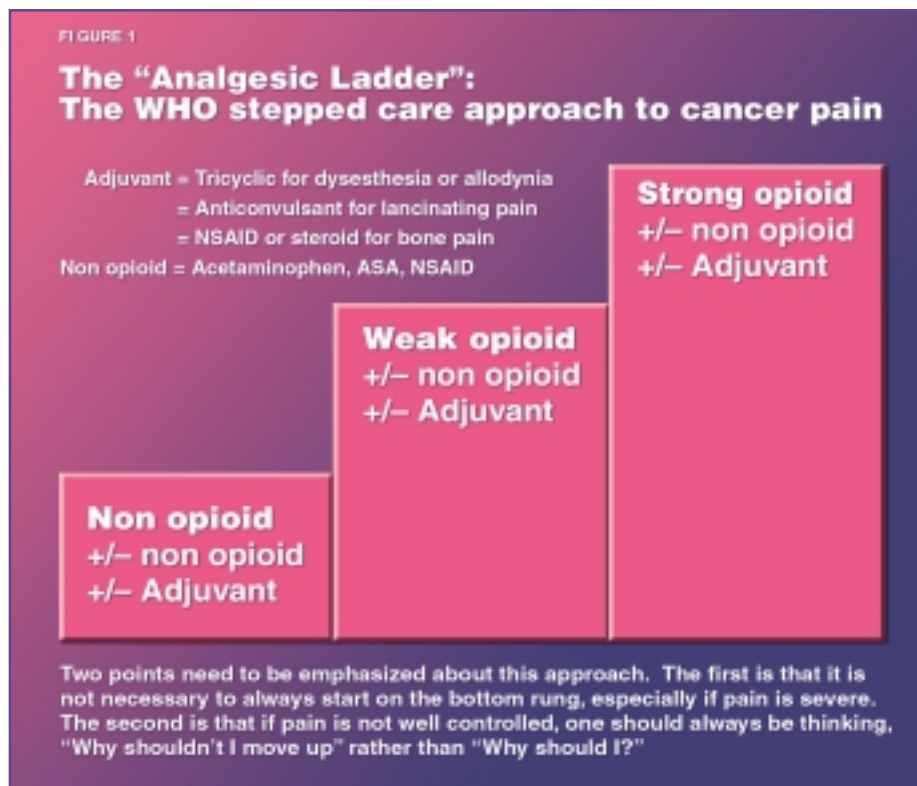
3. Lack of priority for pain. If we don't repeatedly ask questions and try to improve things, we won't be effective in managing our clients' pain. Similarly, if our work setting (community or institution) doesn't make pain management a priority, we won't succeed.

4. Lack of economic resources for pain programs. Palliative care has a tough time competing for diminishing funds, as it often does not excite our colleagues or the general public.

5. Lack of a dedicated palliative care team in the care setting, either home or institution.

Pain solutions

Now that we've identified why pain is managed poorly, we can begin to explore—within the limitations of this article—two pain control solutions, including possible pharmacological



intervention (see the "analgesic ladder" above) and the palliative care team.

The palliative care team is crucial to the provision of good patient care. In addition to bringing many and varied resources to bear on the patient and family situation, the team supports its own members.

It is impossible to continue providing palliative care for any length of time without the backup of a multidisciplinary team. The team may include some combination of physician(s) (palliative care, oncology or family), nurses, pharmacists, physiotherapists, pastoral carers, social workers, nutritionists, case managers, volunteers and other (psychologists or family therapists).

In summary, following are a few basic principles of effective pain control. Using these in your daily practice will allow you to provide optimum care for your patients.

- Always remember the concept of "total pain."
- Do a thorough but relatively rapid assessment of the pain.
- Avoid unnecessary delay in treating the pain,

especially if it is severe.

- Educate the patient, family and other caregivers, and involve them in the treatment plan.
- Follow a stepped approach to analgesia that depends on the severity of the pain.
- Consider giving adjuvant therapy at all stages.
- Give medication orally whenever possible. It's cheaper, easier, more acceptable to the patient and keeps the patient in control.
- Constant pain requires regular administration of analgesics to maintain constant levels of analgesia.
- Always leave instructions for a "breakthrough" dose. (Think of short-acting insulin for blood sugar spikes around mealtimes.)
- Monitor the patient frequently and remain in communication.
- Treat other symptoms aggressively.
- Be flexible.

Brian K. Kerley, BSc, MD, CCFP, FCFP, is the Lead Physician with the Garden City Family Health Network in St. Catharines, ON.

Shoppers Home Health Care is focused on helping Canadians stay active, healthy and independent. From daily living convenience products to sales, service and rentals of mobility, durable medical equipment and respiratory care equipment, health professionals can rely on the finest products and services for health recovery and maintenance. Visit our website at www.shoppersdrugmart.ca to find a SHHC location nearest you or call **1-800-746-7737 (SHOPPERS)**.

Publisher's note: The views expressed in *Clinical Notes* are those of the authors and do not necessarily reflect the opinions of the publisher or Shoppers Home Health Care.

SHOPPERS
HomeHealthCare®

Healthcare solutions for better living