

THE IHS PRIMARY CARE PROVIDER

A journal for health professionals working with American Indians and Alaska Natives



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Marking our 25th Year of Publication



This issue marks the beginning of the 25th year of publication of what is now *The IHS Primary Care Provider*. It started out as a photocopied amalgam of clipped articles and occasional original contributions, often with hand-drawn artwork on the cover, distributed to a few dozen. Now, with a circulation of more than 8000, it is widely regarded as a unique source of original articles about the health and health care of American Indians and Alaska Natives. For this endurance and growth, we have only to thank you, our readers, and the countless authors who have taken time away from their primary responsibilities to share their knowledge and wisdom.

DIABETES MELLITUS

Palliative Care Strategies

Judith A. Kitzes, MD, MPH, Chief Medical Officer, Albuquerque Area Indian Health Service, Albuquerque, New Mexico

Diabetes mellitus, type 2, has emerged over the past 50 years as a leading cause of morbidity and mortality for American Indians and Alaska Natives (AI/ANs). Prevalence rates show that this population group suffers disproportionately from diabetes mellitus (DM) compared with other populations.¹ The report *Prevalence of Diabetes in American Indians and Alaska Natives 1997* states that “the age-adjusted prevalence of diabetes among AI/AN was 3 times that among non-Hispanic whites. However, the prevalence of diabetes among AI/AN women aged 45-64 was 4 times that among non-Hispanic white women, and the prevalence of diabetes among AI/AN men aged 20-44 was 5.8 times that among non-Hispanic white men.”²

The emerging epidemiology of type 2 DM in AI/ANs identifies a population experiencing an excess burden of chronic disease and its distressing symptoms. Unfortunately, at this time, prevalence rates for AI/ANs for symptoms and illness often associated with diabetes or its complications, neuropathic pain, gastroparesis, atonic bladder, diarrhea, impotence, and candidiasis, have not been published. One study conducted in 1998 suggests that AI/ANs who have diabetes mellitus experience a threefold increase in the prevalence of depression compared to the non-Hispanic white population.³

Preventive strategies that may be directed toward diabetes and the ensuing symptoms are receiving greater attention in many AI/AN communities. At the same time, there is a clear need to improve the quality of life of those who already experience chronic symptoms. Evidence-based palliative care measures that can alleviate the physical, emotional, psychological and spiritual aspects of suffering have been published and can be utilized for patients and their affected family members. This article will focus on the following symptomatic problems and the applicable palliative care strategies: neuropathic pain, gastroparesis, diarrhea, impotence, candidiasis, autonomic hypotension, depression, and end-of-life care.⁴⁻¹²

Neuropathic Pain

Neuropathic pain may have a metabolic or an ischemic origin, and the pattern of nerve involvement varies by cause. A strategy for evaluating and diagnosing neuropathic pain can be found in *Staged Diabetes Management, Complications and Hospitalization, 1999*.⁷ Treatment should attempt to address the

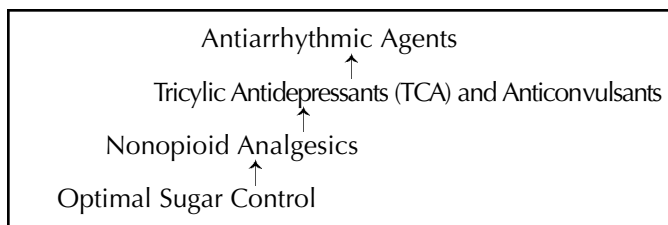
underlying cause. An acute onset of neuropathic pain associated with rapid fluctuations in blood glucose levels may signal a temporary condition. However, chronic pain may develop with progression of disease; this is often most severe at night. Management of such symptoms is best pursued by an interdisciplinary team.

Available treatment modalities include relaxation techniques such as biofeedback and visualization, optimal blood glucose control, use of analgesic medications, adjunctive therapies, surgical decompression of, for example, carpal nerve entrapment, psychological and spiritual counseling, and Traditional Medicine approaches. Definitive therapy is elusive at present, and patients should be offered therapies in a stepwise fashion, trying one therapy at a time, documenting the effectiveness of each, before changing approaches. This paper emphasizes the pharmacologic strategies for palliation because they are the most widely available in the Indian Health Service. Certainly, nonpharmacologic strategies should be aggressively pursued to the extent that they are available at your location.

Optimal Blood Sugar Control. Combinations of oral or parenteral hypoglycemic agents, exercise, or proper diet can delay the development of peripheral neuropathy and may offer reduction in chronic symptoms. Staged Diabetes Management, 1999 or the IHS diabetes mellitus management standards of care are useful references for strategies for optimal blood sugar control.⁷

Analgesic and Adjuvant Medications. Use the World Health Organization (WHO) stepwise approach, trying one class of medications before moving on to another, or combinations of medications, all based on the patient's self-report of pain (see Table 1).

Table 1. The WHO stepwise pharmacologic approach to neuropathic pain



Nonopioid analgesics, of course, refer to acetaminophen and nonsteroidal antiinflammatory drugs (NSAIDs). Tricyclic (TCA) and other antidepressants may be useful as well, although the ability to titrate to an effective dosage is dependent on tolerance of side effects. Table 2 describes some

of the antidepressant medications that have been found to be effective.

Table 2. Antidepressants useful for pain control

Nortriptyline	Starting dose 10-25mg PO hs; titrate to 50-150 mg PO hs Recommended for elders because of fewer anticholinergic effects
Amitriptyline/ Imipramine	Starting dose 10-25 mg PO hs; titrate to 50-150 mg PO hs Amitriptyline is contraindicated in the elderly
Desipramine	Starting dose 10-25 mg PO hs; titrate to 50-150 mg PO hs
Fluphenazine	May be added to above TCA if needed at a dose of 1 mg PO TID

Anticonvulsants such as gabapentin (starting dose 300 mg PO hs; titrate to 300-600 mg PO TID) or carbamazepine (starting dose 200 mg PO BID; titrate to 200mg PO QID) have been helpful for some patients. Antiarrhythmic medications such as mexiletine (150-200 mg PO TID) may be used when all else fails, although it is recommended that you seek consult with a specialist before using these agents. Localized pain may respond to capsaicin cream applied topically 3 or 4 times daily.

Other measures may include traditional medicine, acupuncture, massage, biofeedback, surgical decompression of entrapped nerves (usually carpal tunnel syndrome), spinal cord stimulation, transcutaneous nerve stimulation, relaxation techniques, psychological support, spiritual support, and art/music therapy.

Depression

Routinely assess for signs of clinical depression. Tricyclic antidepressants or selective serotonin reuptake inhibitors (SSRI) may be prescribed in the same dosages as are used for the nondiabetic patient. Psychological counseling, spiritual support, and family education and support are very important.

Impotence

When nonpharmacologic methods have been unsuccessful, sildenafil (25-50 mg PO based on efficacy and tolerance) may be useful for patients with diabetes, although it is contraindicated in patients with unstable cardiac disease or who are on nitrates.

Candidiasis

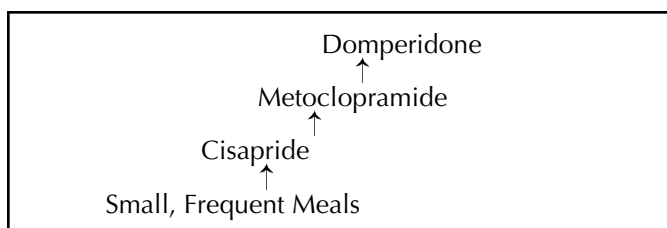
Improved glycemic control is crucial to treating candidiasis. While improving glycemic control, therapy for oral candidiasis can include fluconazole tablets (200 mg first day; 100 mg/daily for 2-3 weeks; monitor liver functions and sulfonyleurea levels), clotrimazole lozenges (1 lozenge, 5 times a day for 2 weeks; monitor liver function tests), or nystatin liquid (100,000 units/ml; 4 to 6 ml QID daily for 7 days. Vaginal infections usually respond to fluconazole tablets (150 mg PO

once) or to a variety of vaginal preparations containing clotrimazole, micronazole, or nystatin.

Gastroparesis

Nausea, vomiting, early satiety, and anorexia may be symptoms of gastroparesis. To treat these symptoms, encourage frequent and small meals, avoid high fat foods and carbonated beverages, and consider use of cisapride (10 mg PO before meals and at bedtime; may be increased to 20 mg; this is preferred in elder patients), metoclopramide (10 mg PO before meals and at bedtime; may be increased to 15 mg if required; has extrapyramidal effects in elders), or domperidone (20 mg PO BID). Refer to Table 3.

Table 3. A stepwise approach to gastroparesis



Diarrhea

Diarrhea may respond to loperamide (start with 4 mg PO, then 2 mg after each bowel movement, with a maximum use of 16 mg/24 hours), diphenoxylate (2.5 mg PO QID), or codeine phosphate (60 mg PO TID or QID).

Orthostatic Hypotension

This can be difficult to treat. One must consider discontinuing antihypertensive medications, prescription of elastic stockings, or elevating the head at night.

Palliation of the above symptoms needs to be individualized, and treatment must be monitored for potentially harmful side effects. Always be mindful of the risk to benefit balance in attempting to improve the quality of life.

End-of-life Care

End-of-life care for a person with diabetes mellitus is very similar to that for a nondiabetic person. Palliative care continues to focus on the physical, emotional, psychological, and spiritual needs of the patient and the family — not on the disease state. Pain, dyspnea, anxiety, restlessness, and other symptoms can be addressed using accepted, specific palliative therapies.

However, a diabetic patient may experience a change in their need for glycemic medications, and tight glucose control may no longer be necessary. Specific goals may shift to include the following: 1) avoid symptomatic hypoglycemia and hyperglycemia, 2) relax dietary restrictions, 3) provide optimal care of the skin and feet, and 4) offer early treatment of symptomatic oral and vaginal candidiasis.

As the end of life approaches, the patient may have a diminished desire to eat or drink, and accompanying weight

loss may require a gradual withdrawal of oral hypoglycemics or insulin. Metformin has many side effects, and is best stopped. A longer acting sulfonylurea, if providing good control, must be monitored carefully, and consideration must be given to tapering the dose downward. There is less risk of hypoglycemia if a short acting drug, (e.g., tolbutamide) is used. Maintenance intravenous fluids are not usually required at this time of life, especially if there is reduced kidney function. All palliative medications need to be dosed with the consideration of potentially decreased renal function. As the person progresses through their final days and becomes unconscious, blood glucose monitoring may not be necessary if it causes discomfort to the patient. Depending on the patient's or the family's desires, insulin may be stopped. As the entire family unit moves through this life transition, interdisciplinary, supportive care is the ultimate goal.

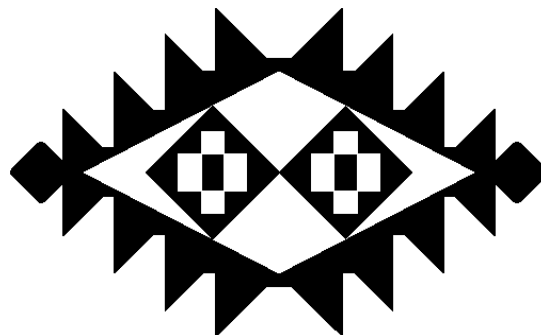
In summary, the palliative care strategy for patients with diabetes mellitus is a dynamic mix of evidence-based therapies and evolving new pharmaceutical and nonpharmaceutical approaches. Palliative care is never static. A fundamental principle of palliative care is to tailor each therapeutic approach to an individual patient and their family and to continue to provide care beyond cure. □

Acknowledgments

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Pharmacy Practice Training Program

Editor:

In August 1999, I attended the Pharmacy Practice Training Program sponsored by the Clinical Support Center, and I wish to provide a brief commentary on this excellent training experience. I had attended this course on two previous occasions, the last time in 1990, and was concerned that I would gain little by going again. I discussed this matter with Ed Stein, the program's coordinator and one of the instructors, and was assured that I would indeed benefit from participating in the program, especially since it had been over five years since I last attended. Not only was he correct in this assessment, but with the manner in which this training has evolved over the years and with the new knowledge that I acquired, I wish I had not waited so long to involve myself with it once more.

For readers not familiar with this course, the Pharmacy Practice Training Program was started in the early 1980s. Indian Health Service pharmacists were rotated through every few years, with the costs being fully paid by the Clinical Support Center. For pharmacists new to the Indian Health Service, the training provided an excellent introduction to IHS pharmacy practice. It taught a set of skills, many unique to the Indian Health Service, that could be utilized in their daily practice. Chart screening, patient education and counseling, conflict resolution, and laboratory test monitoring were some of the topics covered. For mid-career and senior pharmacists, the course provided a first-rate refresher of these skills. It also allowed them to pass along their acquired knowledge to the new pharmacists.

Funding for the Clinical Support Center became progressively tighter in the early 1990s. One consequence of this was that the cost for supporting the Pharmacy Practice Training Program shifted to the service units, by asking them to fund the travel expenses for their pharmacists who attended. Unfortunately, the June 1999 session had to be canceled due to a lack of registered participants. After participating in August, I realize what a missed opportunity this was for pharmacists who had never taken the course or who had not attended for several years. I also saw it as a loss for the collective wisdom of Indian Health Service and tribal pharmacy programs, as the course imparts a great deal of knowledge and insights about practice styles all acquired over many decades. Fortunately, the July and August sessions were well attended, and plans are underway to offer several sessions again this year.

There are a couple factors, I believe, which make this program unique and worthwhile. The first is the content. True to its roots, the course continues to emphasize the skills that pharmacists in the Indian Health Service and tribal programs need to use every day. The curriculum, in its evolution, has incorporated a large measure of case review and role playing. Typical IHS pharmacy situations are presented in a way that gets everyone involved in practicing and improving their patient care competence. A day of physical assessment training has also been added. This brings a whole new dimension to the decision-making aptitude that the course strives to engender. Pharmacists are encouraged not only to think in terms of supplying drug therapy, but to also be active in identifying and assessing non-drug factors that affect this therapy and in making recommendations based on their findings.

The quality of the instructors is another reason this course is so successful. The instructing pharmacists have established clinical programs at their own service units and have the ability to share what they know with those in attendance. As participants, I think we all felt we were being taught by some of the best pharmacists in the Indian Health Service. I personally left with a sense that there is a lot more that I can do as an IHS pharmacist, and that the teachers had given me the tools and a renewed desire to implement what I had learned.

While I have always found the Pharmacy Practice Training Program practical and stimulating, this latest offering was definitely the best. After attending it, I am impressed by the course's continued relevance to pharmacists of varying skill and tenure within the profession. Since lifelong learning is now a requirement of every health profession, the Pharmacy Practice Training Program is an ideal way for IHS and tribal programs to meet this need for pharmacists. I hope the Clinical Support Center continues to offer and develop this program in a way that maintains its exceptional nature. I also hope that pharmacists and service units recognize its value and commit to supporting it through regular participation.

Tony Kuyper
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Geriatric Handbook

We have received more than FOUR TIMES the expected number of responses requesting free copies of the *Geriatrics at Your Fingertips* handbook. This is a terrific expression of interest in the health and health care of Indian elders. We are

currently doing our best to obtain additional copies of the handbook, and we hope to begin the distribution process within two weeks.

The Annual Elders Issue

The May 2000 issue of *The IHS Provider*, published on the occasion of National Older Americans Month, will be the fourth annual issue dedicated to our elders. Indian Health Service, tribal, and Urban Program professionals are encouraged to submit articles for this issue on elders and their health and

health care. We are also interested in articles written by Indian elders themselves giving their perspective on health care issues. Inquiries can be addressed to the attention of the editor at the address on the back page of this issue.

POSITION VACANCY

Editor's note: As a service to our readers, The IHS Provider will publish notices of clinical positions available. Indian health program employers should send brief announcements on an organizational letterhead to: Editor, The IHS Provider, The IHS Clinical Support Center, Two Renaissance Square, Suite 780, 40 North Central Avenue, Phoenix, Arizona 85004. Submissions will be run for two months, but may be renewed as many times as necessary. Tribal organizations that have taken their tribal "shares" of the CSC budget will need to reimburse CSC for the expense of this service. The Indian Health Service assumes no responsibility for the accuracy of the information in such announcements.

Family Practice Physician Wind River Indian Reservation, Wyoming

The Wind River Service Unit has an opening for a BC/BE family physician to join a seven physician group in a non-obstetrics practice. We admit to a private hospital in Lander, Wyoming; call is 1 in 7. It is a great practice in a stunning setting. The opening is available in July 2000. For more information, call John Klinkenborg at (307) 332-7300 (work) or (307) 332-7753 (home). CVs can be faxed to (307) 332-7464.



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