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Chronic Pain (Part 2)

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Treatment

The best pain treatment is no treatment at all. The goal is to increase the patient's ability to control pain without medical intervention. Non-drug interventions such as heat, cold, massage, acupuncture, distraction, relaxation exercises, physical therapy, occupational therapy, hypnosis, biofeedback, and social support all have unique abilities to alter pain sensations. Traditional Native medicine practices such as the sweat lodge ceremony are also powerful modulators of pain and suffering. Urge patients to use these modalities to improve their lives and reduce pain whenever they make sense to the individual and whenever they are available. Sometimes CP can be completely obliterated by traditional medicine ceremonies.

Even if patients do not use all of the non-pharmacological interventions available, it is helpful to reiterate the list and remind patients that they have choices. This reminds patients that no matter how much they feel they may have lost, they still have personal choice in what they will do. This fact helps patients to focus on treatment aspects they have control over.

Teach patients pain control strategies by having them explore various alternative modalities and then list what works. Have patients prioritize their coping strategies from most to least effective. Working with this list, help patients devise a plan for living. Many patients will respond to participation in productive work or hobbies that they enjoy. Some patients have never had a chance to develop artistic talents or practice handcrafts. Many will need to develop a new occupation that they can do within the limitations of their pain. Many patients will start painting, carving, or jewelry making with your encouragement.

Educate patients about pain contingent behavior and the many misconceptions about pain. Patients commonly believe that they should not exercise when they have pain. Teach patients about the values of endogenous endorphin production and encourage them to maintain the same level of activity, every day, whether or not they have pain. On the other hand, warn patients not to over do it on days when they feel little pain. Most patients will need to acquire new habits and routines.

Pain treatment is determined by numerous coexisting factors. Treatment for CP has important clinical differences that distinguish it from treatment of acute, or short-term pain. Pain can be distinguished by severity, as either mild, moderate, or severe. Some providers categorize pain based on whether it arises from malignant or nonmalignant causes. Nonmalignant causes should not be underestimated. In a study by Hitchcock, Ferrell, and McCaffer,[23] fifty percent of patients with nonmalignant pain had considered suicide. The degree of pain the patient experiences also will assist in determining the treatment

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approaches and medications prescribed. The presence or absence of alcohol or narcotic addiction can influence the treatment choices the provider should consider. Some patients who present with pain complaints are seeking disability or reimbursement from third parties. Compensation issues can serve as a disincentive for healing and have been described as critical factors in the persistence of pain.[24]

Exercise is one of the most effective treatments for CP. Many times it is necessary to reduce CP to a tolerable level before patients have the energy to begin. Most patients do not understand that their muscles become deconditioned and that their brain shuts down the production of endorphins, serotonin, and other neurochemicals that quiet pain and improve the sense of well being. Many patients gain weight when inactive and further increase the risk for pain because of the increased mechanical pressure on damaged joints. Weight loss is nearly always an important aspect of pain reduction/prevention. Many patients are nearly immobile because of obesity, injury, and pain. These patients usually do not exercise, or their exercise is ineffective because they are unable to engage the large muscle groups essential for conditioning and weight loss. Generally, the best exercise for patients with CP is aquatic exercise. Water relieves the pressure of gravity while allowing for freedom of movement without injury. Most patients can acquire whole-body conditioning with water aerobics.

Understanding Tolerance, Dependence, and Addiction

Whenever treating patients who will be using opioids, providers need to have a clear understanding of the concepts of tolerance, dependence, and addiction. *Tolerance* is the need to use more and more of a drug to achieve the same result. Tolerance can be an ally. Tolerance means that, eventually, most patients will need more of the opioid they are on to achieve pain control. However, tolerance may often allow patients to adjust to the unpleasant side effects of opioids such as itching, nausea, and somnolence. Tolerance is to be expected when using opioids long-term, although many patients never become tolerant to the analgesic effects. *Tolerance does not mean the patient is addicted.*

If a patient has developed tolerance, *dependence* may or may not be present. Dependence means that a patient must have the drug to maintain a stable state. If the drug is abruptly stopped, the patient will go into physiological withdrawal. *Dependence does not mean that the patient is addicted.* Patients who are dependent may or may not be *addicted.*

A patient who is addicted to an opioid will use more than is necessary to control pain.[25] These patients also exhibit a constellation of uncontrolled behaviors whereby a person forfeits legal, economic, and family security in their quest for drugs or alcohol. Addiction is not a predictable effect, unlike tolerance and dependence. It is an idiosyncratic, adverse reaction occurring in biologically and psychosocially vulnerable individuals.[25] A good observation to note is that addicted persons usually withdraw from society and social interactions, while patients who do not have addictions will resume social activity once pain is under control.

Another concept that is misunderstood is "clock or calendar watching" (pseudoaddiction). This is the patient who anxiously awaits the next pain pill or the next refill. Pseudoaddiction is also not to be confused with addiction. Pseudoaddiction often means that a patient is undermedicated for pain or is on short-acting agents when long-acting agents are needed. Some pseudoaddicted patients suffer from untreated anxiety and/or depression and a feeling of loss of control that has not been addressed.

Research studies confirm that less than one percent of persons who are treated with opioid medications become addicted to opioids.[26,27,28] Fear of addicting patients is a barrier to effective treatment of moderately severe to severe pain. However, concurrent addiction must be addressed. Start patients on pain contracts early, so that there is no misunderstanding about the goals of treatment (improvement in function). Spell out all aspects of the contract. This approach often preempts inappropriate, multiple provider visits, drug-seeking behavior, manipulation, and overdose. Explain to patients that these contracts are between them and their provider and that the provider may choose to no longer care for patients who do not follow the rules. This clarification lays the groundwork for termination of care in any case where the patient puts the provider at risk. Certain patients press the system to the limit to procure more drugs no matter how careful the provider has been. These patients often improve in their behavior once they encounter a unified and consistent organizational approach from all staff members.

Pain Treatment and Addiction

The most difficult patients to treat are usually those with CP resulting from orthopedic or other morbidity as a consequence of alcohol abuse or addiction. Significant numbers of these patients (45%-70%) also have psychiatric comorbidities.[29] Many psychiatric comorbidities are undiagnosed and untreated. Indeed, many addictive disorders arise because patients self-treat their emotional suffering with alcohol or drugs. Other psychiatric comorbidities arise *because* of the chronic use of substances/alcohol. Addicted/abusing patients with pain tend to present late and in a more debilitated state. They need addiction/pain work-ups that include assessment for psychiatric comorbidities. For patients with addiction or abuse histories, prevention of relapse is always a goal of pain treatment. Not treating pain or undertreating it in addicted patients creates a very high risk for relapse. Therefore, pain in addicted patients needs to be as aggressively treated as in any patient.

When addiction, dependence, or tolerance is suspected, it is useful to establish a clear diagnosis so that safe treatment can be instituted. The loss of control over the substance/drug or relapse during treatment should not be considered a character disorder or a moral failing, but a chronic disease of neurophysiology where relapse is anticipated. It is essential to get alco-

hol and drug addicted patients into addiction treatment. Those who are dependent may need to be admitted for detoxification. Active drug and alcohol addictions are neurophysiological diseases wherein patients have lost control over use of a substance.[30] Of great medical interest is the fact that in both CP and addiction, the endogenous opioid system is so similarly disturbed that the current scientific question is whether it is possible that addictive diseases and CP are different clinical manifestations of related neurophysiological disorders.[31] Patients with family histories of addictions are six times more likely to become addicted themselves. Current science has revealed that several genetic markers interact, under certain social conditions, to create the increased risk.[32] Few patients with CP will get better until the addictions, the pain, and psychological issues are addressed and treated, concurrently.

The mere process of asking questions to establish the historical evidence to diagnose alcohol dependence is therapeutically useful in breaking through the walls of denial that many patients have erected around addictions.[33] As information about accidents, injuries, lost jobs, arrests, lost relationships, economic peril, legal issues, and health losses mount, reality becomes more difficult to deny. Once a problem is suspected, spell out exactly what kinds of issues and risks are identified, how the patient is being affected by the problems, the treatments recommended, and the medical reasons for treatment. The choice for treatment needs to be put squarely on the patient. Many patients are likely to opt for treatment, especially when it is readily available.

Treatment attempts will fail unless a strong therapeutic alliance, built on respect, caring, and trust, is established. When patients do not seem ready to change their behavior, do not be discouraged. State your concerns. Offer advice. Restate your worries for the patient's well being. Reinforce your willingness to help. Encourage patients to consult alcohol specialists. Recommend a trial period of abstinence and monitor the response and the pain responses in a follow-up visit. Ask patients to discuss your recommendations with family, and schedule follow-up visits with family members.[34] Tell patients you will be there when they change their mind and decide to get treatment. Remind patients that many people do get clean and sober with proper treatment, and give them hope that they, too can get off alcohol. Kindness and genuine concern will often prompt people to think more deeply about their choices. When caring and respect are the tone, the patient is more likely to hear what is being said and less likely to deny the problem. The presentation of facts and medical observations, in a caring way, is the basic premise of the art of motivational interviewing, which is the recommended approach to working with all patients with chronic diseases, but especially those with diabetes, alcoholism, and CP, where control and outcomes are predicated on self-responsible choices.[33]

Although it is important to identify patients who might be susceptible to addictive diseases at the outset, pain treatment should never be refused or withheld because of a history of addiction. Two screening methods are useful in evaluating addictive diseases and drug dependence. The first is a two-question test: 1) Has your drinking ever been a problem for you? and, 2) When was your last drink? "Yes, within the last 24 hours" is a positive screen. Many providers in IHS facilities use the CAGE screening test (C = Have you ever felt that you ought to *cut* down on your drinking? A = Have people *annoyed* you by criticizing your drinking? G = Have you ever felt *guilty* about your drinking? E = Have you ever had a drink as an *eye*opener?). Two or more positives are highly correlated with alcohol problems. It should be emphasized that no single event is diagnostic of addiction. Rather, the diagnosis is based on a pattern or behavior that becomes obvious over time.

Most patients with addictions alternate between the states of intoxication and withdrawal, and in this latter state there is heightened sympathetic arousal and pain perception. In addition, patients with addictive diseases experience affective changes such as depression and anxiety that worsen the pain. It is useful to sort out what came first: the depression, or the pain. A key question to ask patients is whether they felt better *before* they started drinking or *after* they were under the influence. Many patients with abusive childhood histories, post-traumatic stress disorders and childhood sexual abuse began their drinking as a way to escape feelings of helplessness, hopelessness, and overwhelming emotional despair. These patients are likely to have a reoccurrence of psychological dysphoria, and relapse, unless their pre-existing depression is treated from the outset.

Those patients in remission (five years or more of sobriety) still have an addictive disorder and still need aftercare and follow-up, just as with any chronic disease, for the rest of their lives. Some patients with addictions, or addiction histories, easily convert their addictions to other addictive substances or addictive behaviors. Studies have shown that addictions lead to long-term changes in brain chemistry that persist for years.[32] Patients in remission are usually compliant with treatment and eager to prevent relapse.

Social support, as a treatment, is vital. Support groups are ideal. In the group setting, patients learn from each other, and they can find the empathy and support so often missing at work or at home. In a group, patients who feel hopeless can gain strength from exposure to those who are more evolved in their coping skills. The best teacher for persons living with CP is good examples. If adults with CP encounter other persons with CP, the exposure helps them gain perspective on their pain in a productive way. Patients can also learn new and better coping styles from each other.

Patients with a history of addictions or imprisonment should always be screened for hepatitis B and C, HIV, TB, and sexually transmitted diseases when they present for treatment for CP. They should be given hepatitis A and B immunizations and pneumovax, routinely.

Medications

The approach to moderate to moderately severe CP that works best is to use long-acting opioid agents that are effective around the clock, for baseline control, while using short-acting opioids for breakthrough episodes. Research has shown that narcotic analgesia on a scheduled basis, in adequate doses is far superior to prn dosing. The oral route with twice daily dosing is preferred because compliance is increased. Three times a day dosing should be avoided. It is unwise to omit a breakthrough agent, as patients will sometimes overdose on the long-acting agents when they do not get quick or complete relief. All patients need to be counseled on the risks, benefits, and side effects of, and alternatives to medication use and warned to not crush or chew the long-acting opioid agents to prevent bolus overdosing.

Nociceptive pain (pain generated from tissue damage) responds best to nonsteroidal anti-inflammatory drugs (NSAIDS) or acetaminophen when there is not an inflammatory component. Inflammatory pain responds best to NSAIDs. Bone pain responds well to NSAIDS or steroids. Steroids must be used only in selected patients, and it is best to get a second opinion if they are needed on more than one occasion. If the patient has chronic neuropathic pain, low dose tricyclic antidepressants or gabapentin are usually effective. Adjunctive agents that sometimes work are capsaicin cream or mixilitine. If the patient has mixed pain elements or several different types of pain, NSAIDS may also be started.

A difficult choice is between aggressively treating the pain to capture it, by starting several medications at once, and starting medications one at a time, to judge efficacy. The dilemma can be softened by either seeing the patient on a weekly basis, starting only one medication at a time, until pain can be controlled, or by ordering some sequential trials of medications the patient can take home, so that the patient can identify what works best. Unique patient and clinical situations will help determine which approach to take. Common problems with NSAIDS stem from gastric sensitivity, bleeding due to impaired platelet aggregation, and asthmatic reactions. Over the last year, the Phoenix Indian Medical Center has had more adverse drug effects reported with the drug celecoxib (Celebrex) than any other drug. The drug has since been taken off the formulary.

Although both meperidine and oxycodone/acetaminophen (Percocet) have good pain relief efficacy, they should not be used to treat CP. Meperidine can quickly reach toxic levels and result in seizures. Some hospitals are removing meperidine from their formularies. Percocet is a short-term agent and not effective in CP. Most patients with CP will begin accelerating their doses as the tolerance builds and relief time decreases to 1-2 hours. Once this happens, patients can become pseudoaddicted as they increase the use of Percocet or appear as "drug-seeking" when, in fact, they are presenting with inappropriately treated, unrelieved, CP. Pseudoaddiction stops when patients receive adequate pain treatment. Six Percocet tablets/day are equianalgesic to 30mg of morphine; therefore there is little reason not to begin the long-acting morphine in these cases. The labels of "clock-watching," "drug-seeking," or "Percophile" can be misused, and may result in misdiagnosing and mislabeling of patients who receive inappropriate or inadequate medication for pain.

Another problem concerning the use of Percocet is the acetaminophen content. Percocet contains 325mg of acetaminophen/tablet. The maximum dose recommended by the FDA for acetaminophen is 4 grams per 24 hours, or 12 tablets in 24 hours. Recent findings of unexpectedly high rates of liver injury from casual, chronic use of acetaminophen have increased the scrutiny of all acetaminophen and acetaminophen-combination products with the prospect that the maximum dose recommendations are likely to be further reduced. Frequently, patients exceed safe levels of acetaminophen use because they are also using over-the-counter (OTC) acetaminophen to augment the Percocet. The combination of acetaminophen and Percocet produces a recognized type of euphoria that can be highly addicting in addiction-prone individuals. In patients who already have liver injuries from alcohol or hepatitis, acetaminophen toxicity may happen quickly.

Providers caring for pain patients see a variety of other problems related to treatment that can result in serious consequences. Patients often arrive in pain clinics after trying all sorts of medications, folk-remedies, alcohol, herbals, street drugs, or other treatments to relieve pain, out of desperation. Treatment incompatibilities can result. Providers should ask patients if they are using OTC medications, herbals, or street drugs. St. John's Wort used with the selective serotonin reuptake inhibitors (SSRIs) increases the risk for serotonin syndrome.

Another problem is the use of multiple nonsteroidal anti-inflammatory drugs (NSAIDS), or the extended use of ketorolac beyond the 4-5 day maximum. Oral ketorolac is not as effective as the injected product. Ketorolac is not a good choice for ongoing treatment of CP.

Some patients do not take their medication at the onset of pain but wait until it becomes "unbearable" before medicating. These patients need to be identified and instructed to take medications early to better control pain and prevent chronicity.

Many CP patients benefit from treatment with antidepressant drugs. Tricyclic antidepressants can be used to enhance sleep, treat neuropathic pain, and treat depression. Although the SSRI class of drugs has not been shown to have direct pain relief qualities, they do enhance the psychological energy patients need to deal with the chronicity of pain and thereby result in less need for opioids and other analgesics by increasing serotonin levels in the central nervous system. As mounting research data confirms the efficacy of treating CP patients with antidepressant drugs, antidepressants are quickly becoming first-line drugs.

Antidepressants should be selected by deciding whether the patient needs the activating effects or the sedating effects. Since the SSRIs have a quicker onset of action, they provide quicker relief to the suffering imposed by depression. This is especially important in patients who are feeling helpless, hopeless, or suicidal. Newer, serotonin-norephinephrine reuptake inhibitors (SNRIs) are often used by pain specialists to treat neuropathic pain, but these drugs are usually restricted on IHS formularies. Specialists in IHS often use morning doses of an SSRI, while using very low nighttime doses of a tricyclic antidepressant to address the neuropathic pain. This combination works well when SNRIs are not available.

Amitriptyline can often be effective for both neuropathic pain and sleep disruption. Imiprimine is often recommended over amitriptyline because of fewer side effects. In my practice at PIMC, I have not found imipramine to be as effective in American Indian patients as amitriptyline. The drug has wide neuroreceptor affinity that makes it an effective and widely used drug in pain medicine. When amitriptyline is contraindicated or not effective in restoring sleep, trazadone is a good option. Amitriptyline is not a good choice in patients who are suicidal because of the risk of potentially fatal overdose. In these cases, choose a medication and dose with a higher therapeutic index in case of overdose. Whatever antidepressant is used, it is best to start low and go slow, while allowing at least 4-6 weeks to judge efficacy.

In order to better understand how to use medications effectively in pain intervention, it is useful to look at the sequential neurophysiological stages of transmission of pain. Nociception consists of the sequential steps of transduction, transmission, perception, and modulation. NSAIDs work at the level of transduction; opioids work at the level of transmission; and antidepressants work at several levels, depending on the drug. Therefore, when patients end up on several medications, this is not true polypharmacy, but a reflection of the complicated art of CP management that, like modern diabetes management, often works best with the use of multiple agents that intervene at different levels of neurophysiology.

Fentanyl patches are sometimes useful for elderly patients or for those who can't take medications orally, as in patients who have intestinal malabsorption conditions (*except* those with cystic fibrosis[35]). However, the patch delivery system sometimes makes it a difficult drug to titrate.

Many patients with addictive disorders can be started on gabapentin. Gabapentin is an antiepileptic drug used to treat neuropathic pain of the peripheral nervous system. Its mechanism of action is thought to be stabilization of the cell membrane. Gabapentin not only is not addictive but it is very useful in neuropathic pain control as well as in treating affective disorders. This often makes it a good choice in patients with dual diagnoses. The most common adverse effects are drowsiness and generalized fatigue. The median effective dose ranges from 900 to 1200 mg and needs to be built up slowly. Some patients require doses as low as 100 mg and others require higher doses. Another attractive feature of the drug is that it does not have as many drug-drug interactions. In a study done by Cutter,[36] gabapentin was found to be effective in reducing the pain and impairment of spasticity in multiple sclerosis patients without the side effects of worsening concentration and fatigue.

Those who cannot be started on gabapentin and who have moderate to severe pain can be started on methadone or long-acting morphine. Many patients with addictive histories will require very high doses of opioids to control their pain. One of the benefits of opioid treatment is that there are no ceiling limits. If patients require opioid treatment, they need to have doses that are effective. The "right" dose for a patient is the dose that controls the pain.

Long-acting morphine is the drug of choice for the treatment of cancer pain and moderately severe to severe non-malignant pain. It is the standard against which all other opioid drugs are measured. The pure agonist opioids include morphine, hydromorphone, methadone, and fentanyl. As the doses are increased, the effect increases in a log-linear function until either analgesia is achieved or somnolence occurs. In practice, the efficacy of a drug is determined by the degree of analgesia produced following dose escalation. Side effects include confusion, delirium, hallucinations, and myoclonus.

If morphine is not tolerated or not effective, the ideal second-line opioid is one with a pharmacokinetic profile that is both short-acting and long-acting, with no toxic metabolites, high potency, and low cost. I have found methadone to be a good alternative to morphine in American Indian patients. Methadone has a lower abuse potential than morphine, is inexpensive, and has an 85% bioavailability, which is significantly higher than that of morphine. It often works well for patients with alcohol or heroin abuse histories. Methadone has a similar onset of analgesia as morphine, and plasma concentrations peak in about two hours after oral administration. It is extensively metabolized in the liver, and the half-life is long although highly variable (12-190 hours).[37] The analgesic duration of action is also variable and is thought to be between 4 to 8 hours.[38] Methadone will take a long time to reach a steady state after dosing is initiated or changed. I have often found it to work well with neuropathic pain in American Indian patients.

Successful patient outcomes will be improved if patients are educated about the unique properties of their medications. Advise patients to give new medications a reasonable chance for success before judging them a failure. Cross-tolerance in opioid-tolerant patients is incomplete when switching between opioids and methadone and highly variable between patients. It is crucial to pay close attention to individual titration because conventional conversion factors underestimate the potency of methadone. It is advisable to start lower and go slower than the calculated equianalgesic dose.

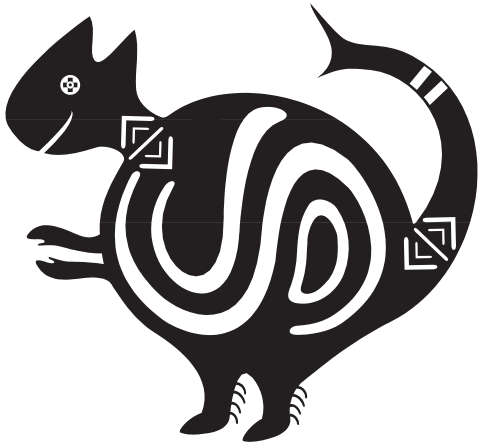
The patient who presents with prolonged back pain and sciatica is a possible candidate for epidural steroids. The character of the pain is usually deep and aching, with numbness, tingling, or shooting pain. Patients who respond best to steroid injections are those who are carefully selected, with a shorter duration of pain (less than a year), those with no previous surgeries, those who have had an accurate diagnosis of nerve root inflammation, those with no affective complications, and those who receive proper steroidal placement.[39] Patients with nerve root symptoms are best referred to pain medicine specialists who do procedural interventions.

Side Effects

A common barrier to using adequate doses of opioids in patients with moderate to severe CP is the fear of respiratory depression. In studies by Ashburn, Love and Pace,[40] in over 11,000 patients, the risk of respiratory depression was low. Problems were found to be less than 0.1%. Severe pain is the best agonist to the sedating effects of opioids. Usually, when patients become sleepy, it is an indication they may be reaching pain relief. Contrary to popular belief, patients in moderate to severe pain do not get a "high" from their medications. Usually, patients are exhausted by pain and go to sleep once pain intensity falls to tolerable levels.

Patients with malignant pain or CP who are on chronic opioids can be expected to have some side effects. If opioids are effective in relieving the pain, they should not be stopped. Instead, side effects need to recognized and controlled. The most common side effect of opioids is constipation. Patients do not develop tolerance to constipation, and they will need constant prophylaxis. Patients should be proactively started on a stimulant laxative at the outset. Bulk laxatives, such as Metamucil, should be discontinued and should be avoided because they may cause difficult and risky impactions. Diabetic patients have particularly high risk for serious impactions because of gastrointestinal autonomic neuropathies that can retard gut motility while muting pain. The risk of problematic impactions in IHS patients is higher due to the high numbers of patients who present with long-standing diabetes. Lactulose can be used in difficult cases of constipation, and it is acceptable for use in diabetic patients. It can be titrated to effect; start at 4 tbs every four hours until the patient has a bowel movement

Tolerance to sedation usually develops in 4 -5 days of regular use. Some patients go into a deep sleep that is worrisome to the family, but most patients who have had inadequate pain relief are exhausted and need deep, restful sleep. Many times, the family will need as much education as the patient to promote improved outcomes.



For patients who complain of somnolence, caffeine can be increased in the diet or OTC stimulants can be added. Caffeine is a well-known analgesic with a long and safe pharmacologic history. Itching is a fairly common side effect of opioids that can also be treated with hydroxyzine or ceterizine if persistent. Most itching remits within 2-3 days of treatment initiation. Nausea can be treated with promethazine or prochlorperazine. Tolerance to nausea usually develops in two days.

Urinary retention sometimes occurs and tolerance usually develops in 2-3 days. Urecholine can be used if necessary. Myoclonic jerks are a normal side effect, and most patients and families need reassurance. Clonazepam or diazepam help suppress myoclonal jerks. The best advice to follow when managing side effects is to continue to use medications that are effective in pain control while proactively treating constipation and treating other bothersome effects.

Patients on long-acting opioids need close, collaborative management if and when they need surgical treatment. Patients must be maintained on background doses of opioids at the same level, and they will need additional pain medication, just like any patient who goes to surgery, over and above the regular medication regimen. If patients are not carefully managed, in a collaborative manner, they may go into withdrawal during or after surgical procedures. All patients who have surgery while on treatment for CP need careful post-operative monitoring.

Acceptance

When all available resources and treatments fail to control CP, research shows that those persons who strive for understanding and acceptance achieve a better overall adjustment and ultimately report less pain.[41] Acceptance means that the patient gives up unproductive attempts to control pain and focuses energy on living a satisfying life. Acceptance can be a paradoxical concept to both patients and providers (regaining control over life by first giving up control) but when acceptance is achieved, patients experience fewer negative emotional consequences and report less pain.

Addiction treatment specialists have observed that there are certain patient behaviors that exemplify the enough-is-enough state (EES). These behavior patterns and lack of insight are commonly shared with patients with addictions.[42] They are as follows:

- Loss of control.
- Preoccupation with pain; the pain becomes the center of the patient's universe.
- Denial: "I know that there must be a good surgeon who can fix my back"; "There must be something else you can do!" (from the patient who has already had five surgeries).
- Rationalization: "I can't exercise because . . .."
- Projection: "It's _____ 's fault I have this pain. If they would have only . . .."
- Repression and suppression: the patient who refuses to deal with reality.
- Failure to take personal responsibility; the patient does not comply with treatment recommendations and keeps making the pain the providers responsibility. "When are you guys going to do something about my pain?"

Patients at EES usually have had multiple surgeries, treatments, injections, evaluations, therapies, and providers. They often travel from one clinic to the next. The main modality for coping with pain usually narrows to a focus on drugs and/or alcohol. These patients become locked into the idea that their pills are their link to sanity and survival. They look upon others who use these drugs as addicts while they see themselves as different. "I have to have these drugs because of my pain."

The Twelve Step program of Alcoholics Anonymous is useful treatment modality for these patients. It is predicated on the patient first accepting helplessness over addiction (pain), and then, in a process of psychological evolution (12 steps), learning to live with the pain while regaining control of their lives. The advantage to a Twelve Step program is that it can be started anywhere by anybody with few resources, and it leads patients into learning how to accept living with pain.[42]

Recommendations for Practice

Patients with CP need to have documented treatment plans with contingency recommendations for when, where, and how they will get treatment in the event that the primary care provider is not available. The drug treatment contract needs to specify others who may write for pain medications if necessary. Patients with substance use/abuse histories should always have a signed drug contract initiated and filed in the chart.

When providers treat patients with opioids who have pain and addictions, routine, regular chart reviews need to be done by quality assurance reviewers, pharmacy staff, and medical reviewers with a requisite level of understanding of pain medicine and addiction medicine. Besides having a complete history and physical, with a pain assessment, and the medical indications for the use of an opioid, the written treatment plan should state the objectives that will be used to judge treatment a success (goals). The providers should also document discussion of the risks, benefits, and side effects of and alternatives to the use of opioids with the patient. Patients with psychiatric comorbidities should have a psychiatric consult completed and filed in the chart.

Compliance with treatment should be monitored and referrals made whenever appropriate. Patients should always be followed at reasonable intervals with constant reassessments documented. It is helpful and appropriate to give patients a copy of their treatment plan so that in any emergency, they have a copy of pertinent information to share with other providers or agencies if necessary. These measures help to protect both the provider and the patient when issues arise. Patients who have severe episodes of CP, as in sickle cell crisis, need to have laminated treatment plans that they can carry with them should they need to report to an emergency room for treatment. In cases where one provider is ordering high doses of opioids, legal risk can be reduced by asking for a consultative opinion from another provider. Pain providers are often those professionals in a community ordering the most opioids. Such providers are often targeted for regulatory scrutiny. Seasoned pain providers have learned that lawsuits or regulatory problems rarely arise where two providers agree upon and advise the same treatment regimen. □

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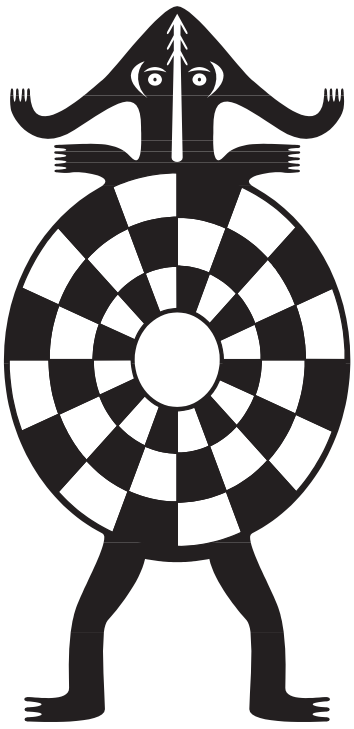

Anemia and Chronic Kidney Disease

This is the sixth in the series of articles about chronic kidney disease.

Andrew S. Narva, MD; and Theresa A. Kuracina, MS, RD, CDE, both from the Indian Health Service Kidney Disease Program. Albuquerque, New Mexico

Diseased kidneys can't make enough erythropoietin

Healthy kidneys make erythropoietin, a hormone that stimulates bone marrow to make red blood cells. Anemia generally develops in chronic kidney disease due to an erythropoietin deficiency. Diseased kidneys cannot make enough erythropoietin, resulting in normocytic, normochromic anemia.

Who should be worked-up for anemia?

- Start checking for anemia at Stage 3 and above (GFR $\leq$ 60 mL/min/1.73m^2)
- Or if Hgb < 11 g/dL in pre-menopausal women and pre-pubertal patients
- Or if Hgb < 12 g/dL in adult men and post-menopausal women
- At altitudes > 6000 feet increase the threshholds for evaluation by 1g/dL for both men and women.

Use hemoglobin to quantify the level of anemia.

- Hemoglobin is the preferred lab test for anemia assessment in CKD. Hemoglobin is measured quantitatively and is not greatly affected by plasma water; length of time stored prior to analyses; nor is it falsely elevated in hyperglycemia as is the calculated hematocrit

Anemia evaluation

- Check Hgb; red blood cell indices; and reticulocyte count
- Check iron status: serum iron; total iron binding capacity (TIBC); percent transferrin saturation (TSAT); and serum ferritin
- Test for occult blood in the stool

If serum creatinine is greater than 2 mg/dL, and no other cause for anemia is found, the anemia is most likely due to an erythropoietin deficiency. Routine determination of erythropoietin level is not recommended.

Target hemoglobin

- < 6000' elevation: 11 - 12 g/dL
- > 6000' elevation: 12 - 13 g/dL

Iron status

Inadequate iron in CKD is multifactorial. Low protein diets; blood loss; infection and inflammation; hyperparathyroidism; aluminum toxicity; and coexisting disease can all contribute to iron deficiency in CKD. No single lab value will definitively diagnose functional iron deficiency in CKD.

Transferrin saturation (TSAT) and serum ferritin are both used to assess iron status in CKD. Transferrin saturation reflects iron that can be used to make red blood cells. Serum ferritin reflects iron stored in the liver, spleen, and bone marrow.

Target TSAT and Ferritin, needed to maintain target Hgb

- TSAT > 20% (not to exceed 50%)
- Ferritin > 100 ng/mL (not to exceed 800 ng/mL)

How to treat the anemia of CKD

1. Use synthetic erythropoietin substitutes: epoetin alpha "EPO" (Procrit, Ortho Biotech; or Epogen, Amgen) or darbepoetin alfa "DPO" (Aranesp, Amgen)
   - Subcutaneous administration is preferred over intravenous administration
   - For adults, start treatment when Hgb is below target
   - EPO: 10,000 u subcutaneous every week
   - DPO: 60 mcg subcutaneous every 2 weeks (due to its longer half-life)
   - Rotate injection sites between upper arm, thigh, and abdominal wall areas
2. Use iron (intravenous or oral) if indicated
   - 200 mg of elemental iron per day divided into 2 - 3 doses is recommended when using oral iron supplements
   - Oral iron supplements should be given one hour before or two hours after a meal for best absorption
   - For patients unresponsive to oral iron (i.e., unable to achieve and maintain ferritin >100 and TSAT >20%), intravenous iron supplementation should be considered. Iron dextran can be given in doses up to 500 mg but a test dose is required, the dose must be infused slowly, and the incidence of serious acute reactions is 0.7 %. New injectible iron formulations do not appear to pose the same risk for anaphylaxis as iron dextran and can administered more rapidly, although in lower doses. Test doses are not recommended for iron sucrose injection (Venofer), and it can be administered by slow IV push (100 mg over 5 minutes). We have found this to be a convenient way to administer intravenous iron in a busy outpatient setting

Monitoring of anemia

- Check Hgb every two weeks until stable, then monthly
- Check TSAT and ferritin at least once every 3 months

High Frequency of Asthma in Native American Children Among the Assiniboine and Sioux Tribe of Northeast Montana

Roman M. Hendrickson, MD; James Bresette, PharmD; and Julie Bemer, RN, MPH; all from the Fort Peck Service Unit, Poplar, Montana

Abstract

Objective: To estimate frequency of childhood asthma in American Indians living in northeastern Montana.

Design: A retrospective study.

Setting: The Fort Peck Indian Health Service Unit is located in northeastern Montana and serves a population of more than 8500 Native Americans who are predominantly Assiniboine and Sioux tribal members. Approximately 3700 are under the age of 19.

Method: The electronic medical record database was searched to identify all individuals under the age of 19 years with one or more visits for asthma. Twenty percent of the medical records of those so identified were reviewed to assure concurrence between coded diagnosis and the diagnosis entered by the treating medical provider. Patients with at least one visit to the service unit from January 1, 1996 to February 22, 1999 were eligible for inclusion in the study.

Results: 15.5% of children under 19 enrolled in the clinic during the study period had a diagnosis of asthma.

Introduction

English, et al define asthma as "a disease characterized by chronic inflammation and episodic obstruction of the airways leading to difficulty in breathing, which is potentially fatal if untreated. The etiology of asthma is thought to be multifactorial, with environmental, genetic, familial, and socioeconomic influences playing a role."[1] Asthmatic symptoms may increase with exposure to high levels of air pollutants including tobacco smoke, agricultural pesticides, and indoor allergens.[2]

The Medical literature is replete with articles on asthma in children. Only recently however, have reports appeared that explore the variation in asthma prevalence in differing ethnic groups.[3] Asthma is a major problem for children. It is the leading cause of chronic disease in childhood.[4] Asthma leads to significant functional impairment and school absences, as well as increased utilization of health care services for the affected children.

In the US, the prevalence of asthma increased 39% in children under 18 years of age between 1981 and 1988.[5] Over the past 15 years, the number of US children with asthma has doubled, to about 6 million. Asthma now afflicts 6.7% of children in the US.[1,6] However, the prevalence of asthma in Native Americans is not well defined.

Several national and international surveys report no difference in prevalence of asthma by ethnic group. Other authors do show significant differences.[6] In the US, minority children are disproportionately affected by asthma. The CDC reported a slightly higher prevalence rate of asthma for African Americans than non-Hispanic Caucasians (9.4% vs 6.2%).[3,7]

Several recent reports find much higher prevalence rates of asthma among children of Puerto Rican descent. A study of Asian immigrants in Australia found asthma prevalence to be significantly association with length of stay in the country, suggesting that environmental factors may be important contributors to the higher prevalence of asthma in minority populations.[3] However, one investigator found asthma susceptibility genes in the groups of Caucasians, African Americans, and Hispanics studied.[3] The only article in the medical literature describing asthma prevalence in Native American children reported a prevalence rate of 12.3% in the children of the Jemez Pueblo.[8]

The authors first became interested in the prevalence of asthma in Native Americans because in March 1999 the pharmacy department of the Indian Health Service Fort Peck Service Unit in Poplar, Montana observed a high volume of inhaled beta-2 agonists prescribed at that facility for children. This observation was confirmed by using a drug utilization report and raised concerns as to the apparently high prevalence of asthma in the patient population served. A literature review revealed little about asthma in Native American Children.[8] A multidisciplinary team was convened to assess the nature and prevalence of asthma in the population of the service unit.

The Fort Peck Service Unit is an isolated medical community, located in the extreme northeast corner of Montana, and serves 8500 Native Americans, primarily the Assiniboine and Sioux tribe. The staff includes seven physicians and five midlevel practitioners located in two clinic sites.

Methods

The data for this historical cohort were obtained from Fort Peck Service Unit's RPMS (Resource and Patient Management System) computer database. The RPMS is the

computer software utilized by the entire Indian Health Service system. It uses network communication hardware and software so that information can be exchanged between local area networks (LAN) and wide are networks (WAN) and thus, with other facilities. The data were reviewed by a multidisciplinary team including a family physician, a public health nurse, and a pharmacist. Every fifth chart was reviewed to verify concurrence between the coded diagnosis and the diagnosis entered by the treating medical provider.

Results

From 1/1/1996 through 2/22/1999, there were 3762 active patients ages 0-18 years registered at the service unit. Of those, 663 had at least one clinic visit with the diagnosis of asthma as the purpose for the visit, including primary and secondary diagnoses. However, the chart review demonstrated that 12% of the charts had the diagnosis miscoded. Those visits where the purpose of visit was identified by ICD-9 (International Classification of Diseases) codes 493.0 - 493.[9] were counted as patients with a diagnosis of asthma for purposes of this study. These data indicated an asthma prevalence of 15.5% in the pediatric population of the Ft Peck service unit. Of this cohort, 260 were female (39%), and 403 were male (61%).

Discussion

National data reflect asthma prevalence rates in the general population of children in the US to be 6.7%. In some minority groups in the US, rates in children have been reported to be as high as 20%.[9] The only other study of Native American children reported an asthma prevalence rate of 12.3%.[8] The Montana Medicaid program reported that for 1997-1998 there were 58,561 children ages 0-20 years old enrolled in that program. Of those children, 1,536 received services for asthma, indicating a prevalence rate of 2.3% in this comparable geographic and socioeconomic group.[1]

An apparent asthma prevalence rate of more than double the national average and more than six times the rate of a comparable geographic and socioeconomic group found in our pediatric patient population warrants additional study to determine the appropriateness of these preliminary findings. Clearly nonstandard diagnosis, diagnostic transfer, and unknown data retrieval errors may invalidate some of our data. However, the paucity of data describing Native American asthma, the increasing prevalence of asthma nationally, and the need for more appropriate targeting of chronic diseases in high risk populations all justify further investigation of this problem in our patient population.

Summary

An apparent prevalence rate of asthma in the children of the Assiniboine and Sioux Tribe of northeast Montana was found to be 15.5%. This is more than 2.5 times the national average rate reported for the US pediatric population, and one of the highest reported for any minority group in the US. This surprisingly high prevalence rate in our patient population for asthma, and the lack of studies in Native Americans with asthma, justify further investigation of the findings presented in this preliminary report. Further studies of risk factors for asthma in this group of patients should be implemented. □

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Artificial Hydration and Nutrition in the Dying Process

The following article is the fifth in an ongoing series in support of the development of a unified approach to palliative care services for American Indians and Alaska Natives. Each presents brief, concise facts and information for providers of palliative care.

Judith A. Kitzes, MD, MPH, Soros Foundation, Project on Death In America Faculty Scholar, University of New Mexico Health Science Center, School of Medicine, Albuquerque, New Mexico

- ☐ *Nutrition is not equivalent to nurturing.*
- ☐ *AHN does not prolong life, and may increase suffering.*
- ☐ *No ethical or legal barriers to withholding or withdrawing AHN.*

Artificial hydration and nutrition (AHN) is defined as nutritional and hydration support of an invasive nature requiring placement of a tube into the alimentary tract (enteral) or parenterally, via intravenous or subcutaneous means (hypodermoclysis)." [1]

Unfortunately, the role of AHN at the end of life frequently leads to controversy among physicians, patients, and families. Family members are concerned that the patient may "starve to death," thus increasing suffering. In fact, a decrease in food and fluid intake at the end of life is normal and part of the natural physiology of dying. The most consistent symptom of the dehydration of the natural dying process is the complaint of a dry mouth. This symptom is not relieved by parenteral hydration, but is easily palliated by ice chips and lubricants. Nutritional deficiency resulting in ketonemia has been postulated to be responsible for a mild state of euphoria.[2]

Potential indications for AHN:

- AIDS and AIDS-associated enteropathy
- Acute delirium

Potential contraindications for AHN:

- Advanced dementia
- Potential for fluid overload

In summary, the burdens and complications induced by AHN frequently outweigh the benefits of intervention. Frederich writes, "A therapeutic trial of AHN (three days) to achieve clearly defined goals may be useful in cases of conflict."[3] This may lessen the guilt family members might experience during the bereavement period. ☐

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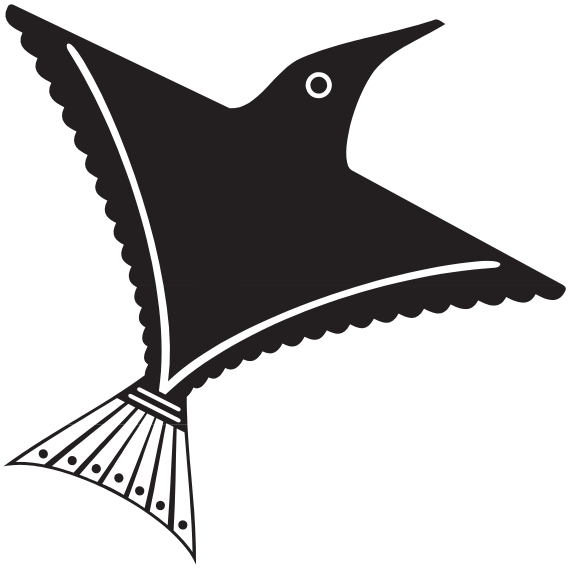


PDA Software Available From The Internet

Scott Hamstra, MD, Whiteriver, Arizona; Chris Lamer, PharmD, CDE, Cherokee, North Carolina; and Carol Miller, BSN, MBA, McLean, Virginia; all with the Information Technology Support Center, Tucson, Arizona

This article is the third in a series of articles on Personal Digital Assistants (PDAs). Previous articles addressed the history and development of PDAs and a summary of the IHS PDA survey. This article will review and describe the various programs available for PDAs from the Internet. It also will provide a reference to different web sites to assist the provider in obtaining additional information about these programs, such as installation and download instructions, cost, memory needed, and responses to frequently asked questions. Information about the commonly used PDA programs, such as schedule, address book, etc. will not be reviewed in this article.

There are a vast number of clinical and non-clinical programs available to the provider. Many of the websites you will visit provide a free demo of how their program works. Since there are competitive programs and because some programs are sold in a combination package, it is wise to review each of the program's applications and capabilities.

In assessing software you should ask yourself:

- What do I need in my clinical practice to assist me with patient evaluations and medical-decision making?
- Does this program offer everything I need or does it only provide limited information and/or irrelevant data?
- How often are the programs updated, and are the updates readily accessible, at a cost or free?
- What other similar programs are available in the marketplace and what are the similarities and differences?
- Do I have enough storage capacity for this program and/or several programs?
- Do I have the appropriate hardware and Internet connection to utilize and update the software?

The following provides a listing and abbreviated description of several of the programs available for the PDA. The list is not arranged in any priority order. Links to these applications may be found on the Indian Health Service Webpage at *http://www.ihs.gov/MedicalPrograms/CIR/cir-informatics.asp*.

ePocrates Rx – A drug reference program with over 2700 drug monographs and formulary information. ePocrates is used to confirm dosage and preparations, seek out generic preparations, check spelling, evaluate potential interactions, and assess cost. (Free)

ePocrates ID – An infectious disease reference with comprehensive information about over 300 diagnoses, 350 bugs, and 250 drugs. (Cost)

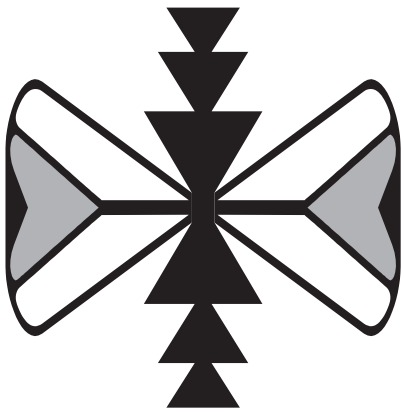
ePocrates Rx Pro – This product includes two applications: the standard ePocrates free treatment package with the drug database and formulary information, and the "Pro" option (at a cost) that includes:

- Over 400 alternative medicine monographs, interactions, and reported uses. As an example, if the original selected drug is non-formulary or not prior authorized, comparable alternatative drugs in the same drug class with their formulary codes can be selected.
- Synonym screen
- Includes ePocrates ID
- Clinical tables and guidelines
- MedMath clinical calculator, including thirty of the most commonly used formulas
- DocAlert messages for such things as FDA labeling changes, recalls, guidelines, and study abstracts

K2 LexiDrug Package – This includes Five Minute Clinical Consult (clinical aspects of the disease), LexiDrug (review of various medications for the disease) and Armamentarium (checks drug interactions with other drugs the patient is on). (Cost)

Tarascon – Pharmacopoeia with 47 reference tables; 9 medical formula calculators; instant drug look up by name, class, or indication; adverse effect and mechanism of action for each drugs; and an integrated tool for checking multiple drug interactions. (Subscription fee as of January 2003)

Physician Drug Handbook (handheldmed) – This program includes 5000 brand and generic drugs, how supplied, indications, route and dosage, overdosage, effects on diagnostic tests, adverse reactions, and other information. (Cost)



eDrug Database – This program includes over 12,500 drug names and dosage forms and 2500 generic listings plus brand names and dosage forms. Each drug listing gives a generic name, brand use or class, and pregnancy risk. Program also includes investigational drugs likely to be released by the FDA. (Free) Requires the database program *Jfile* for use.

John Hopkins Antibiotic Guide – Infectious diseases and antibiotic guidelines. Palm, PocketPC, and Blackberry versions. (Free)

MicroMedex – Provides drug information, complementary and alternative medicine (CAM), disease and toxicology information, patient education, and integrated point-of-care decision support. System requirements for the mobile windows and pocket system applications are listed on the web site at *www.micromedex.com.*

MedCalc – This medical calculator program contains the most commonly used equations such as age calculator, body mass index, heart rate, ideal body weight, pregnancy calculator, proteinuria, and LDL/cholesterol. Formulas come with bibliographic references and clinical use types. (Free)

PregCalc – This program estimates from the first date of the last menstrual period the following: date of conception, end of first trimester, end of second trimester, and delivery date. (Free)

PregDates – Calculates pregnancy dates. (Free)

MyOBWheel – This program calculates EDC, gestational age, and asks the question, "When will the patient be in X weeks." (Free)

WeightCalc – This program calculates body mass taking into account weight and waist, hip and forearm circumference, to calculate ideal weight. (Free)

STAT Cholesterol (ATP III Cholesterol Guideline Tool) – This program detects, evaluates, and treats high blood cholesterol in adults. (Free)

FirstAid – This program provides guidelines from Mayo Clinic for common urgent and emergency care situations. (Free)

Full Physical – This program provides a complete review of the full physical exam.

Mini Mental Status Exam – This program evaluates the cognitive function as well as screens for depression and/or monitors for progression. (Cost)

5 Minute Pediatric Consult – This program provides extensive information on common pediatric-specific complaints as well as specific physical exam findings section on treatment, follow up, and medication index. Program also includes common doses of medications for each diagnosis. (Cost)

Shots2003 – This is a quick reference guide on each vaccine that includes basic information, high-risk indications, adverse reactions, contraindications, catch-up, and administration for each vaccine. (Free)

MedRules – Clinical prediction rules taken from medical literature. Examples include acute sinusitis, croup score, family practice incidence rates, UTI diagnosis, coronary disease risk, acute pulmonary edema, and pharyngitis evaluation. (Free)

ACLS 2001 – The latest ACLS protocols as of August 2001. Examples include fibrillation, tachycardia, acute pulmonary edema, and others. (Free)

Pocket Practitioner – This is an integrated patient tracking, coding, and billing system. Information includes patient list, diagnosis list, medication list, procedure list, and charge, procedure, and diagnosis capture at point of care. (Free)

Obesity Guideline Tool – National Institutes of Health guidelines based on "Clinical Guidelines for Overweight and Obesity in Adults." (Free)

Allergies – A tracking system for allergies that includes pollen count and types as well as information on medications. (Free)

DiaBytes – This program stores blood sugar levels.

Blood Pressure Manager – This program tracks blood pressure and graphs results based on ideal, baseline, and hypertensive.

Stat Growth Charts – This program calculates accurate growth percentiles. It includes CDC growth charts and new body mass index for age charts. (Free)

Diabetes ADA 2002 – This program provides quick clinical documentation reminders for treating and diagnosing diabetes. (Free)

Marek's Primer of Differential Diagnosis – The online journal of immunology. (Cost)

Patient Tracker – This patient tracking system provides access to patient records including patient demographics, lab results, medication and allergy lists, test results, and radiology reports. System also includes note capability, checkout lists, and patient log.

In addition to the clinical and patient management software programs referenced above, the following programs can also be downloaded onto the PDA.

Medical Abbreviations by Krystoff – over 200 common and not so common medical abbreviations (Free)

Harrison's – A resource with practical detail on internal medicine (Cost)

Merck Manual – Symptoms and differential diagnosis (Cost)

Merck Manual of Geriatrics (Cost)

Taber's Medical Dictionary (Cost)

Stat E&M Coder– Easy to use interactive template to assist the provider in selecting the correct evaluation and management code. (Cost)

Stat ICD9 Coder – Includes a complete set of 15,000 codes to allow the highest level of specificity in diagnosis coding. (Cost)

Stat CPT Coder – CPT coding reference guide (Cost)

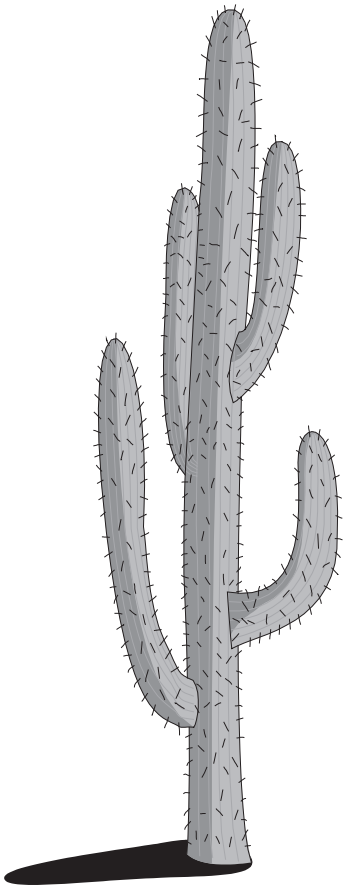
Website References

The following is a partial list of website references for the various programs.

www.pdamd.com
www.handspring.com
www.handheldmed.com (clinical reviews, news, and forums)
www.handango.com (comprehensive Palm top resource
www.palmpilot.com
www.freewarepalm.com (site to order over 170 free software programs)
www.pocketinformatics.com (download files)
www.epocrates.com
www.tarsconpublishing.com
www.trgpro.com (memory upgrades)
www.medicalsoftwareforpdas.com
www.pdacortex.com/palm (information and references to software programs)
www.fnotebook.com (Family Practice Notebook that provides unlimited downloads for all PDAs. There is a subscription cost.)

Next PDA Article

The next PDA article in this series in *The Provider* will provide information about the implications of HIPAA on hand held clinical applications.



The Health Resources and Services Administration, HIV/AIDS Bureau, Division of Training and Technical Assistance announces:

2nd annual *"All Things Are Connected"*

May 1-2, 2003 • Savannah, Georgia

"All Things Are Connected" The American Indian & Alaska Native HIV/AIDS, Substance Abuse, and Diabetes Conference: Successful Involvements for the Elimination of Health Disparities Among American Indians/Alaska Natives

In today's health care environment, health care professionals are continually in need of increasing their ability to and knowledge of blending access to care, research, practice and education, and community involvement to improve health care practices targeting American Indians and Alaska Natives suffering from HIV/AIDS, substance abuse, and diabetes. This conference will serve as a forum for health care professionals who provide care for American Indians and Alaska Natives. The program will feature examples of how we can work together to provide a positive impact on HIV/AIDS, substance abuse, and diabetes.

Who should attend:

Physicians, nurses, physician assistants, dentists, pharmacists, social workers, case managers, peer counselors, mental health professionals, substance abuse treatment providers, outreach workers, treatment educators, corrections health care providers, community workers, community planners, discharge planners, program administrators and home health care workers.

For further information go to *www.tech-res-intl.com/nativeconference* or call 301-897-7448.

The 7th Annual Elders Issue

The May 2003 issue of THE IHS PROVIDER, to be published on the occasion of National Older Americans Month, will be the seventh 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 and health care issues. Inquiries or submissions can be addressed to the attention of the editor at the address on the back page of this issue.

NCME VIDEOTAPES AVAILABLE

Health care professionals employed by Indian health programs may borrow videotapes produced by the Network for Continuing Medical Education (NCME) by contacting the IHS Clinical Support Center, Two Renaissance Square, Suite 780, 40 North Central Avenue, Phoenix, Arizona 85004.

These tapes offer Category 1 or Category 2 credit towards the AMA Physician's Recognition Award. These CME credits can be earned by viewing the tape(s) and submitting the appropriate documentation directly to the NCME.

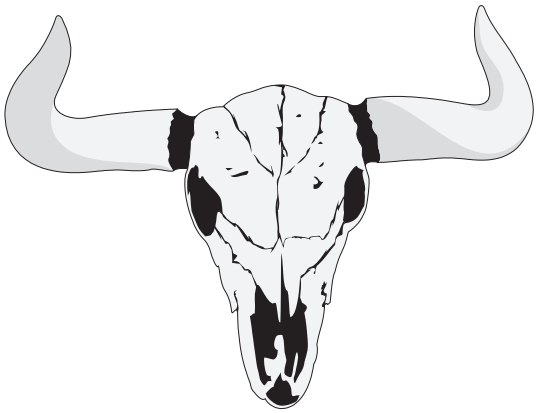
To increase awareness of this service, new tapes are listed in The IHS Provider *on a regular basis.*

NCME #807

Understanding and Managing Acute Pain (*60 minutes)* The management of acute pain can be rife with challenges. Correct assessment of the patient and his or her pain, appropriate drug selection, dosage titration, and prevention of chronicity are just some of the issues that physicians face every day when treating patients who experience acute pain. Dr. Thomas Simopoulos discusses how to distinguish acute pain from chronic pain, describes the basic mechanisms underlying acute pain, and offers practical tips for accurate clinical evaluation of the patient who is experiencing acute pain. He also reviews the role of various treatment modalities in alleviating short-term discomfort. Using case scenarios, Dr. Simopoulos provides guidance on pain management in young adults, the elderly, expectant mothers, and drug abusers/addicts. This program also contains the latest pain management guidelines set forth by the Joint Commission on Accreditation of Healthcare Organizations (JCAHO).

NCME #808

Critical Pathways in Acute Coronary Syndromes (ACS) Part I *(50 minutes)* This program provides the background and rationale for developing and implementing evidence-based critical pathways (aka protocols, algorithms) for acute coronary syndromes – from hospital admission through patient discharge – that are consistent with the updated ACC/AHA Guidelines for UA/ANSTEMI and the new Joint Commission on Accreditation of Healthcare Organization's (JCAHO) data collection requirements on hospital core measures. In part 1 of this 2-part program, Dr. Ornato discusses the epidemiology, pathophysiology, and management of acute coronary syndromes in the emergency department. Dr. Mehta reviews key clinical trials that impacted the revised American College of Cardiology (ACC) and American Heart Association (AHA) guidelines for the management of UA/NSTEMI. Part 2 (NCME #809) will explore the new ACC/AHA Guidelines in detail and provide compelling answers to the questions, "Why Critical Pathways for ACS?"



Nutrition and Chronic Kidney Disease
March 5 - 6, 2003; Albuquerque, New Mexico

The IHS Nutrition and Dietetics Training Program (N&DTP) and the IHS Kidney Disease Program will sponsor a two-day workshop on nutrition and chronic kidney disease in Albuquerque. The objectives of this workshop are to review the new National Kidney Foundation classification of the stages of chronic kidney disease (CKD) and the progressive nature of CKD; to identify patients who may benefit from nutritional intervention to preserve kidney function; to prescribe, monitor, and evaluate appropriate medical nutrition therapy; and to identify different treatment modalities and their respective nutritional considerations.

Dietitians, nutritionists, and other health professionals who provide services to American Indian and Alaska Native patients with varying degrees of kidney disease are encouraged to apply. The IHS N&DTP has no registration fee for those representing programs that have not taken their shares of the IHS N&DTP budget. For additional information, please call IHS N&DTP toll free at (866) 477-6432.

IHS Colposcopy Update and Review
March 5 - 7, 2003; Albuquerque, New Mexico

This course is a 2 1/2-day update and review for ob/gyn physicians, family physicians, and advanced practice clinicians who perform colposcopy in IHS, tribal, and urban program facilities. The faculty will be nationally recognized experts in lower genital tract disease. The program will emphasize new developments in cervical cancer screening and the management of abnormal Pap tests. Diagnosis and treatment of diseases of the vulva and vagina will also be covered. The format will include lectures and small group discussions and slide reviews. The ASCCP Colposcopy mentorship Exam will be offered (optional) to interested participants at the conclusion of the program.

For more information, contact Roberta Paisano, Cancer Epidemiology Program, IHS Headquarters West, 5300 Homestead Road, NE, Albuquerque, New Mexico 87110; telephone (505) 248-4132.

IHS Integrated Diabetes Education and Clinical Standards Recognition Program Workshop
March 18, 2003; Albuquerque, New Mexico

The IHS Integrated Diabetes Education and Clinical Standards Recognition Program enables your program to seek acknowledgment of quality diabetes care and education services offered in your community. The IHS Recognition Program offers flexibility in measuring your program against nationally accepted diabetes education and clinical standards. IHS Diabetes Education Recognition will allow diabetes education programs to seek Medicare reimbursement.

This workshop is designed for health professionals, diabetes team members or diabetes educators working in the Indian health network.

The March meeting will be held at the Marriott Hotel. The December workshop is being presented in conjunction with the Diabetes In American Indian Communities Conference in Denver, December 10-13, 2003; it will be held at the Adams Mark Hotel.

There is no registration fee for these workshops. The IHS Clinical Support Center is the accredited sponsor. For more information or to request a pamphlet, contact the IHS Nutrition and Dietetics Training Program at (866) 477-6432; e-mail *deckleberry@abq.ihs.gov*; or log on to our web site at *www.ihs.gov/medicalprograms/nutrition*.

IHS Pediatrics Conference
March 20 - 22, 2003; Albuquerque, New Mexico

This continuing education conference will be held March 20-22, 2003, in Albuquerque, New Mexico. A variety of topics of interest to physicians, nurses, and physician assistants who provide care for American Indian and Alaska Native children will be presented.

The IHS Pediatrics Conference will be held at the Marriott Hotel at 2101 Louisiana Blvd., NE, Albuquerque, NM 87110; telephone: (505) 881-6800; fax (505) 837-6616. The conference room rate is $65.00 single or double. The deadline for room reservations is February 26, 2003.

This seminar is presented by the Indian Health Service and the University of New Mexico School of Medicine, Office of Continuing Medical Education.

For more information, contact the course director, Kelly Moore, MD at (505) 248-4811 or Kathy Breckenridge at UNM at (505) 272-0883. Or visit the UNM CME website at *http://hsc.unm.edu/cme*.

Geriatric Dentistry and Oral Health for the Non-Dentist Workshop
April 7 - 9, 2003; Albuquerque, New Mexico

Attention oral health care providers. The New Mexico Geriatric Education Center announces their Geriatric Dentistry and Oral Health for the Non-Dentist Workshop. Tuition waivers will be available for IHS and tribal providers. E-mail *dfranklin@salud.unm.edu* if you wish to be added to the mailing list for more information.

Establishing Metabolic Syndrome Programs in American Indian/Alaska Native Communities
April 15 - 16, 2003; Phoenix, Arizona
June 3 - 4, 2003; Minneapolis, Minnesota

This two-day diabetes and cardiovascular disease prevention workshop will address the justification and essential program components necessary for implementing metabolic syndrome programs in American Indian and Alaska Native communities.

Teams of 2-3 healthcare professionals (MD, PA, RPh, RD, RN, etc.) who have interest and plan to develop a metabolic syndrome program or improve an existing diabetes program should apply. Such teams will be given priority over individuals.

The IHS Clinical Support Center is the accredited sponsor of this workshop. For more information or to request a pamphlet, contact the IHS Nutrition and Dietetics Training Program at (866) 477-6432; e-mail *deckleberry@abq.ihs.gov*; or log on to our web site at *www.ihs.gov/medicalprograms/nutrition.*

IHS National Nutrition and Dietetics Seminar
April 29 - May 2, 2003; Albuquerque, New Mexico

This seminar is designed for Indian Health Service, tribal, urban program, BIA, and WIC Program dietitians and nutritionists serving American Indians/Alaska Natives. The conference goals are as follows: to increase knowledge, confidence and skills in providing consistent messages that address customer needs; to provide updates on IHS initiatives and programs; to provide opportunities for nutrition professionals working in American Indian/Alaska Native communities to network and share experiences.

Workshop offerings include the following: New Staff Orientation; IHS Headquarters Updates and Initiatives; Medical Nutrition Therapy: Using the Standards; Reimbursement for Nutrition Services; Cultural Counseling; Prevention Marketing; Applying Exercise Science for your Patients; Diabetes Prevention Program: Successful Tips for Use with Your Clients; Culinary Arts for Dietitians and Nutritionists; and How to Conduct and Analyze Focus Groups.

A registration fee will apply for those registrants employed by compacting/contracting tribes who have withdrawn tribal shares from the IHS Nutrition and Dietetics Training Program. The conference will be held at the Marriott Hotel.

The IHS Clinical Support Center is the accredited sponsor of this workshop. For more information or to request a pamphlet, contact the IHS Nutrition and Dietetics Training Program at (866) 477-6432; e-mail *deckleberry@abq.ihs.gov*; or log on to our web site at *www.ihs.gov/medicalprograms/nutrition.*

15th Annual IHS Research Conference
May 13 - 15, 2003; Scottsdale, Arizona

The 15th Annual IHS National Research Conference, entitled "Research: The First Step to Wellness," will enhance our ability to ensure the benefit of research to Native American communities and peoples. The conference will also examine in depth the health disparities among American Indian and Alaska Native (AI/AN) communities. This three-day research conference will bring together many stakeholders in American Indian/Alaska Native research activities including clinicians, health administrators, educators, consumers, researchers, and community and tribal government leaders across the nation.

Individuals who want to present their research should prepare an abstract and fax, mail, or e-mail it (in Word format) to Leslie L. Randall, RN, MPH by March 28, 2003 (see Call For Papers in the January issue of *The Provider*). If mailing, include a diskette with the abstract in Word. E-mail addresses: *leslie.randall@mail.ihs.gov*, *lrandall@aol.com*, or *lrandall@email.unc.edu*.

The IHS Research Conference will be held at the Doubletree Paradise Valley Resort, 5401 North Scottsdale Road, Scottsdale, Arizona 85250; telelephone (480) 947-5400; fax (480) 481-0209; or website *www.paradisevalley.doubletree.com*. The conference room rate is $79.00 single/double per room, per night, plus tax. Be sure to mention "IHS Research Conference" to receive this rate. Deadline for room reservations is April 14, 2003.

The conference is sponsored by the Indian Health Service and the IHS Clinical Support Center (the accredited sponsor). For more information, contact Orie Platero, Conference Coordinator, 801 Thompson Avenue, TMP 450, Rockville, Maryland 20852; telephone (301) 443-1492; fax (301) 443-1522; or e-mail *oplatero@hqe.ihs.gov*.

Taking the Care of Chronic Kidney Disease to a Higher Level

May 15 - 16, 2003; Lewistown, Montana

Our facility is hosting the Montana State Renal Conference entitled "Taking the Care of Chronic Kidney Disease to a Higher Level" on May 15-16, 2003 in Lewistown, Montana. The goal of this conference is to provide an educational forum for health care professionals to learn about early detection of kidney disease, minimizing progression of kidney disease, and management of uremic complications to improve the health status of kidney disease patients. The target audience will be primary care physicians, internists, endocrinologists, nephrologists, family practice physician, nurse practitioners, and dialysis personnel.

For more information, contact Patti Jo Feller RN, CNN, Fort Peck Tribal Dialysis Unit, Poplar, Montana 59255; telephone (406) 768-5468; or e-mail *patti.feller@mail.ihs.gov*.

Applied Exercise Science for Clinical Professionals: A short course and practicum in Exercise Science and Exercise Planning

May 20 - 21, 2003; Santa Fe, New Mexico

This workshop is designed for health care professionals (MD, PA, RPh, RD, RN, etc.) who have interest in and plan to provide assistance to patients with exercise for both primary and secondary prevention.

Participants will learn about the following: sufficient exercise science fundamentals necessary for decision making on advising patients to exercise, specifically regarding exercise mode, duration, intensity and progression of energy expenditure in both primary and secondary prevention; relevant clinical energy expenditure in both primary and secondary prevention; practical exercise through program case studies, including several novel forms of exercise; current consensus guidelines (ACSM, 2000; NHLBI 1998; ACE CES; ADA 2002); essential exercise physiology framework for acute and chronic exercise response; relevant exercise clinical trial outcomes published over the last two years and their practical application; essentials for exercise programming in primary and secondary prevention; practical methods of estimating exercise energy expenditure; essential considerations when advising exercise; criteria for selecting appropriate forms of physical activity; exercise compliance strategies; and anthropometric measures of body composition (body fat analysis).

A registration fee will apply for those registrants employed by compacting/contracting tribes who have withdrawn tribal shares from the IHS Nutrition and Dietetics Training Program.

The IHS Clinical Support Center is the accredited sponsor of this workshop. For more information or to request a pamphlet, contact the IHS Nutrition and Dietetics Training Program at (866) 477-6432; e-mail *deckleberry@abq.ihs.gov*; or log on to our web site at *www.ihs.gov/medicalprograms/nutrition*.

The IHS Physician Assistant and Advanced Practice Nurse Annual CE Seminar

June 9 - 13, 2003; Scottsdale, Arizona

Designed for physician assistants, nurse practitioners, nurse midwives, and pharmacist practitioners working for Indian health programs, this three-day CE seminar will provide an opportunity to network with peers/colleagues on issues of common concern, update knowledge of current health trends and issues, develop new skills to improve patient care, and receive accredited continuing education. The program will offer approximately 20 hours of discipline specific continuing education designed to meet the needs of those providing primary care to American Indians and Alaska Natives.

The seminar will be held at the Chaparral Suites Hotel, 5001 North Scottsdale Road, Scottsdale, Arizona 85258; telephone (480) 949-1414. A business meeting for all Advanced Practice Nurses will be held Monday, June 9th through the morning of Tuesday, June 10th. The Physician Assistants' business meeting will be held Thursday evening, June 12th. The CE seminar will begin at 1:00 pm on Tuesday, June 10th and continue through noon on Friday, June 13th. The agenda will include both plenary sessions and concurrent workshops, on a variety of clinical topics. The complete agenda and registration forms will be available by mid-April. A registration fee of $250 will apply for those employed by compacting tribes or those in the private sector. For more information, contact CDR Dora Bradley at the IHS Clinical Support Center, telephone (602) 364-7777, or e-mail *theodora.bradley@mail.ihs.gov*.

The IHS Southwest Regional Pharmacy Continuing Education Seminar
June 13-15, 2003; Scottsdale, Arizona

The largest annual meeting of Public Health Service pharmacists and technicians, and pharmacists from tribally operated programs, this seminar provides up to 15 hours of ACPE approved pharmacy continuing education credit. Hosted by the IHS Phoenix, Navajo, Tucson, Albuquerque and California Areas and the California Rural Indian Health Board, the target audience is made up of pharmacists and technicians working in Indian health system pharmacies. For more information, contact LCDR Ed Stein at the IHS Clinical Support Center by e-mail at *edward.stein@mail.ihs.gov*.

U.S. Public Health Service Conference ("The COA Meeting")
June 15 - 18, 2003; Scottsdale, Arizona

This annual conference brings together federal and state public health providers and administrators from throughout the nation. It is an excellent opportunity to stay current on the latest trends in public health care, network with colleagues, and fulfill many of your continuing education credit needs all in one place! The conference will open with a forum moderated by U.S. Surgeon General Richard Carmon and featuring the top leadership of the major federal health agencies exploring the future of public health.

The meeting is sponsored by the Commissioned Officers Association and the Indian Health Service Clinical Support Center (the accredited sponsor). It will be held at the Westin Kierland Resort & Spa. For more information, go to *http://conference.coausphs.org* or call toll- free (866) 544-9677.

Summer Geriatric Institute
June 19 - 21, 2003; Albuquerque, New Mexico

The New Mexico Geriatric Education Center announces the next Summer Geriatric Institute, entitled "Aging Minds, Aging Spirits: Dementia, Depression and Delirium in the Elderly." A limited number of tuition waivers will be available for IHS and tribal providers. Watch for registration brochure in March 2003, or e-mail *dfranklin@salud.unm.edu* if you would like to be added to the mailing list.

Fifth Annual American Indian Elders Conference
September 9 - 11, 2003; Oklahoma City, Oklahoma

The Fifth Annual American Indian Elders Conference, "Elders Are the Difference," will be held September 9-11, 2003 in Oklahoma City, Oklahoma. The main goal of this conference is to recognize the differences American Indian Elders make in the lives of others as they strive to improve their own lifestyles. Outstanding Elders and their accomplishments will also be recognized, representing tribes in the state of Oklahoma. Nomination information will be distributed to tribal administrators and chiefs by early summer.

Conference topics will include Alzheimer's, cancer, diabetes, exercise, pain management, grandparents raising grandchildren, and much more. The conference planning committee consists of representatives from Lawton Indian Hospital, Wewoka Indian Health Center, Oklahoma City Area Indian Health Service, Oklahoma State University, American Cancer Society, Cherokee Nation, Cheyenne and Arapaho Tribes, Choctaw Nation, Seminole Nation, Oklahoma Insurance Department, Department of Human Services' Aging Services Division, and the University of Oklahoma Health Science Center.

The conference will be held at the Marriott Hotel, 3233 NW Expressway, Oklahoma City, Oklahoma. Registration brochures will be available in June. For more information on conference registration, the call for presentations, conference support, or Outstanding Elder nominations, contact either Shona Gambrell at Oklahoma State University, at (405) 744-6571; e- mail *shonmat@okstate.edu,* or K. Denise Smith at Lawton Indian Hospital by calling toll-free (888) 275-4886 ext 348; e-mail *karole.smith@mail.ihs.gov*. Conference information can also be found at *http://www.okstate.edu/hes/programs.html*.

POSITION VACANCIES ☐

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.*

Executive Director
Santa Ynez Tribal Health Clinic; Santa Ynez, California

The Santa Ynez Tribal Health Clinic is seeking an Executive Director. The Executive Director is responsible for the administration and management of the clinic, comprised of Medical, Dental, and Social Services Departments. He or she will coordinate resources and supervise programs, including grant procurement, budgets, revenues, facilities, personnel, program oversight, Accreditation Association for Ambulatory Health Care (AAAHC) accreditation, contract requirements and regulations, HIPAA compliance, and applicable county, state, and Federal laws.

Requirements include not less than three years' experience working in public health or a health service agency with progressive responsibility, and a Masters Degree (MBA, MHA, or MPA). Administration of American Indian programs is desirable. Candidate must have administrative experience, leadership ability, good character, and knowledge of the local Indian community. Native American preference applies. EOE.

The clinic is located 30 minutes north of Santa Barbara in the beautiful Santa Ynez valley. Please send resumes to Barbara Muller by fax to (805) 686-2060; by mail to P. O. Box 539, Santa Ynez, California; or by e-mail to *barbara@sythc.com*.

Dentist
Pueblo of Jemez; Jemez, New Mexico

The Pueblo of Jemez Health and Human Services Dept. is seeking a general dentist for its dental clinic. The candidate will provide a full range of dental services to patients of all ages for the Pueblo of Jemez. Provides diagnostic, preventive, educational, and corrective dental health services to eligible patients. Preventive services include sealants, topical fluoride, and community- and school-based dental education. Corrective services include restorative dentistry, endodontia, exodontia, prosthodontia, orthodontia, and pediatric dentistry. Serves as the dental advisor to the Jemez Health Clinic medical staff and the Pueblo of Jemez Health and Human Services Department on all matters pertaining to oral health. Supervises the Jemez Dental Clinic staff and coordinates dental services. Dentistry degree from a recognized college of dentistry, current New Mexico licensure or eligibility for immediate licensure, and 2 - 5 years experience in dental practice. Salary negotiable, DOE. Position open until filled. For further information and/or tribal application, contact the Pueblo of Jemez Human Resources Department (505) 834- 7359.

Family Practice Physician
Sonoma County Indian Health Project; Santa Rosa, California

The Sonoma County Indian Health Project (SCIHP) is seeking a full-time BC/BE family practice physician to join our team. Obstetrics and inpatient skills required. SCIHP is a comprehensive community care clinic located in the northern Californian wine country. We offer a competitive salary, excellent benefits, and an opportunity for loan repayment. For more information, please contact Bob Orr at (707) 521-4654; or e-mail *rorr@crihb.ihs.gov*.

Nursing Positions
Tuba City Indian Medical Center; Tuba City, Arizona

Tuba City Indian Medical Center, a 70-bed facility, is located in northern Arizona on the Colorado Plateau, 85 miles north of Flagstaff and 75 miles south of Page (Lake Powell). The Grand Canyon is also within 1.5 hours of the facility. Due to the rural setting and increased patient acuity, Tuba City Indian Medical Center is seeking nurses with current licensure for employment in the following areas: 1) one position on the Adult Care Unit; 28 beds, nurse to patient ratio = 1:6(8); 2) four positions on pediatric unit; 15 beds, nurse to patient ratio = 1:5; 3) four positions in the emergency department; 4) two positions in the operating room; 5) two positions in obstetrics; 6) three position in PACU/ Short Stay Surgery; and 7) additional rolling position availability in outpatient departments. Many positions require working on a rotational shift during evenings, nights, weekends, and holidays. On the units, a ladder system is in place to allow for leadership opportunities and upward mobility while remaining on the unit of your choice.

The Performance Improvement Director position is also available to support administration in ensuring effective patient care outcomes through case management, risk and safety management, infection control, and performance improvement. A Health System Specialist (Compliance Officer) vacancy is also available where the incumbent contributes to the organization's mission and vision by planning, designing, implementing, and maintaining system- wide compliance and privacy programs, policies, and procedures. Please contact Amy Webb, Nurse Recruiter, at (928) 283-2710; or e-mail *awebb@tcimc.ihs.gov.*

Family Practice Physician
Sage Memorial Hospital; Ganado, Arizona

Practice Family Medicine the way it should be. FP centered health care environment. Utilize all of your privileges. Have time to really interact with patients and colleagues. Sage Memorial Hospital in Ganado, Arizona has five open positions available immediately for board certified family physicians.

We are located on the Navajo Nation in northern Arizona. We are an independent facility. We qualify for NHSC scholarship and loan repayment. Inexpensive housing is provided on the compound.

Ganado is one hour from Gallup, New Mexico and 2fi hours from Flagstaff, Arizona. A flexible work schedule allows for plenty of opportunities for hiking, biking, camping, and skiing in the surrounding area. The beautiful mesas and mountains of the high desert here are enhanced by a perfect, sunny climate.

For further information call Dr. Ralph P. Eccles at (928) 755-4500; fax (928) 755-4659; or e-mail *rpeccles@frontiernet.net*.

Chief of Internal Medicine
Phoenix Indian Medical Center; Phoenix, Arizona

The Phoenix Indian Medical Center is seeking a Chief of Medicine, Board Certified, with five years of experience, preferably several years of IHS experience. The practice utilizes a hospitalist internal medicine model and includes a busy primary care medicine clinic. Currently the internal medicine department has on staff eleven general internists in the department, with full time endocrinology and pulmonology and part time representation for multiple other subspecialties. Please contact Kim R. Smith at (602) 364-5253; fax (602) 364-5358; or e-mail *kim.smith@mail.his.gov*.

Staff Physicians, Multiple Specialties
Phoenix Area Indian Health Service; Phoenix, Arizona

Challenging professional opportunity in a setting of rewarding, cross-cultural health care. Seeking BC/BE family practice, obstetrics and gynecology, internal medicine, general surgery, and emergency medicine physicians. Position available in urban and rural settings. Our physicians are eligible to apply for the IHS Loan Repayment Program. Please send resume and/or inquiries to Kim R. Smith by fax at (602) 364-5358; or e-mail *kim.smith@mail.ihs.gov*. Equal Opportunity Employer.

Internal Medicine Hospitalist
Phoenix Indian Medical Center; Phoenix, Arizona

The Phoenix Indian Medical Center is seeking a full time general hospitalist (BC/BE). The practice utilizes a hospitalist internal medicine model and includes a busy primary care medicine clinic. Currently the internal medicine department has on staff eleven general internists in the department, with fulltime endocrinology and pulmonology, and part time representation for multiple other subspecialties. Please contact Kim R. Smith at (602) 364-5253; fax (602) 364- 5253; or e-mail *kim.smith@mail.his.gov.*

Infectious Diseases Specialist
Phoenix Indian Medical Center; Phoenix, Arizona

The Phoenix Indian Medical Center is seeking a full time general hospitalist (BC/BE) with specialization in infectious diseases. The practice utilizes a hospitalist internal medicine model and includes a busy primary care medicine clinic. Currently the internal medicine department has on staff eleven general internists in the department, with fulltime endocrinology and pulmonology, and part time representation for multiple other subspecialties. Please contact Kim R. Smith at (602) 364-5253; fax (602) 364-5358; Or e-mail *kim.smith@mail.his.gov*.

Emergency Medicine Physicians
Phoenix Area IHS

The Phoenix Area Indian Health Service is seeking emergency medicine physicians (BC/BE, with ACLS certification) to staff multiple urban and rural health care facilities. Make a difference in the health care of American Indians and Alaskan Natives. Our physicians are eligible to apply for the Loan Repayment Program. Equal opportunity employer. Please send your resume and/or inquiries to Kim R. Smith, Phoenix Area Office, Two Renaissance Square, 40 North Central Avenue, Suite; 510, Phoenix, Arizona 85004; telephone (602) 364-5253; e-mail *kim.smith@mail.his.gov*; fax (602) 364-5358.

General Otolaryngologist
Phoenix Indian Medical Center; Phoenix, Arizona

The ENT Department at the Phoenix Indian Medical Center seeks a well-trained, personable individual for a full-time staff position in our three-person department. We are a Public Health Service, 125-bed tertiary care hospital in the heart of the Valley of the Sun. Practice a broad range of OTO-HNS utilizing all of your skills. We have a robust outreach program, with no overnight stays. Full audiological support both at our hospital and in the field.

Enjoy a competitive salary (150-165K as a Civil Servant), paid leave (plus all Federal holidays), CME monetary and leave allowance, and malpractice coverage. EOE.

Phoenix is the home to multiple professional sports franchises, a renowned symphony, year- round golfing, and nearly every amenity one could want.

Contact Greg Buchalter, MD, Deputy Chief, ENT Dept., telephone (602) 263-1514; fax (602) 263-1635; e-mail *gregory.buchalter@pimc.ihs.gov.*

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THE IHS PRIMARY CARE PROVIDER

THE IHS PROVIDER is published monthly by the Indian Health Service Clinical Support Center (CSC). Telephone: (602) 364-7777; fax: (602) 364-7788; e-mail: *the.provider@phx.ihs.gov.* Previous issues of THE PROVIDER (beginning with the December 1994 issue) can be found on the CSC Internet home page *(www.csc.ihs.gov).*

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Publication of articles: Manuscripts, comments, and letters to the editor are welcome. Items submitted for publication should be no longer than 3000 words in length, typed, double-spaced, and conform to manuscript standards. PC-compatible word processor files are preferred. Manuscripts may be received via e-mail.

Authors should submit at least one hard copy with each electronic copy. References should be included. All manuscripts are subject to editorial and peer review. Responsibility for obtaining permission from appropriate tribal authorities and Area Publications Committees to publish manuscripts rests with the author. For those who would like more information, a packet entitled "Information for Authors" is available by contacting the CSC at the address below or on our website at *www.csc.ihs.gov.*

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Indian Health Service
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