

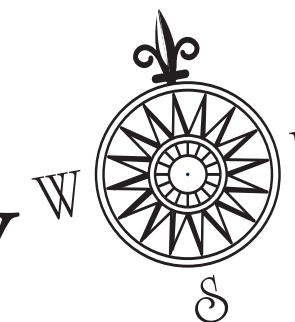
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Official Newsletter for Idaho Medicaid Providers
Idaho Drug Utilization Review (DUR) Program
Spring 2007

The DUR Discovery

Exploring ways to improve pharmacotherapy



WHAT'S INSIDE!

Pediatric Constipation
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Visit our website: <http://idahodur.isu.edu>

The last Pharmacy and Therapeutics (P&T) Committee Meeting held by Idaho Medicaid was April 20, 2007. Recommendations from the meeting can be found on the Medicaid website at: www.healthandwelfare.idaho.gov Follow the Medical link to Prescription Drugs and then P&T Committee.

The next P&T Meeting will be held on June 15, 2007, at Idaho Medicaid, 3232 Elder Street, Boise, ID 83705

Pediatric Constipation

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Constipation is a common problem among the pediatric population affecting up to one-third of children between the ages of 6 and 12.¹ Normally, infants have approximately 4 stools per day which gradually declines to an average of 1-2 stools per day by age 4; however, regular stooling patterns will vary between patients.² Events such as toilet training, changes in diet, stressful events, and a child's postponing defecation can contribute to the development of constipation. Children who intentionally delay defecation may experience encopresis (fecal incontinence).

The most recent guidelines for the evaluation and treatment of pediatric constipation have been developed by the North American Society for Pediatric Gastroenterology, Hepatology and Nutrition.² A thorough history and physical is recommended for all patients including a stool test for occult blood in all infants and children with abdominal pain, failure to thrive, or a significant family history of colon cancer. Key treatment recommendations are highlighted below.

- Dietary treatment includes increased fluid intake. Prune, pear, and apple juice which contain sorbitol are all recommended. Patients should consume a balanced diet including whole grains, fruits, and vegetables.
- An important behavior modification to promote regular bowel habits is unhurried time on the toilet after meals.

- Medications, if needed, include glycerin suppositories, polyethylene glycol, lactulose, magnesium hydroxide, sorbitol, and mineral oil. Occasional short term treatment with stimulant laxatives such as senna and bisacodyl may also be needed.
- All laxatives are considered equally efficacious with choice of treatment based upon safety, cost, ease of administration, and practitioner experience (see Table I).

Polyethylene glycol 3350 (Miralax® or GlycoLax®) became available over-the-counter (OTC) March 1, 2007. Due to its OTC availability, effective April 15, 2007, Idaho Medicaid no longer covers this product.

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Migraine Headache Prophylaxis

By Kimball Owens, PharmD and Chris Owens, PharmD, BCPS

Migraine headache (MH) is a common, debilitating disorder affecting an estimated 18% of women and 6% of men in the United States.^{1,2} Headache itself is a common complaint in clinical practice. Approximately 1% of all physician office and emergency department (ED) visits are associated with headache; most are likely MH.³ Decreased work productivity and absenteeism as well as reduced quality of life contribute to the combined direct and indirect costs estimated at over \$13 billion per year.²

The American Academy of Neurology (AAN), as well as several headache organizations, have published guidelines recommending the use of prophylactic drugs in select subgroups of patients.^{4,6} These subgroups include 1) patients who suffer two or more attacks per month that produce disability lasting three or more days per month; 2) contraindications to, or failure of, acute therapies; 3) use of abortive medications more than twice per week; or 4) the presence of uncommon migraine conditions, including hemiplegic migraine, migraine with prolonged aura, or migrainous infarction. Other considerations for preventive therapy include high economic costs of acute treatments and the presence of recurring migraines that, in the patient's opinion, significantly interfere with daily routines despite acute treatment.⁶

Migraine prophylactic therapy is sometimes regarded as a clinically controversial topic, as patient tolerability and adherence is often an issue. Nevertheless, it has been shown to reduce MH frequency by as much as 50%.^{6,7} In addition, patients who regularly use prophylactic therapy have less severe headaches and their responsiveness to acute therapies is improved.⁷ Despite this, it is estimated that only 30% of patients who might benefit utilize such therapy.⁸

Although their exact mechanism of action with respect to preventing headaches is incompletely understood, drugs commonly used as prophylactic agents include beta-blockers, tricyclic antidepressants, anti-seizure medications, NSAIDs, calcium channel blockers, and angiotensin blockade agents. Other therapies include

riboflavin, magnesium, hormone replacement, SSRIs, and the herb feverfew.³⁻⁷ It is important to note that these agents have varying levels of clinical evidence supporting their efficacy (see table II). Drugs with established efficacy and those considered first-line include amitriptyline, divalproex sodium, propranolol, timolol, and topiramate. Among second-line agents, gabapentin and verapamil are most frequently employed.^{5,7}

In general, initial doses should be low and increased slowly until benefits are achieved or intolerable side effects occur. Long-acting formulations are helpful for improving adherence. A trial of at least two months of consistent use is necessary to establish efficacy, and patient comorbidities should be considered when selecting a prophylactic agent.³⁻⁷

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Treatments for Peripheral Neuropathic Pain

By Jesse Owen, PharmD and Chris Owens, PharmD, BCPS

Peripheral neuropathic pain (PNP) is encountered with increasing frequency in clinical practice, often in conjunction with chronic diseases such as diabetes, HIV infection, multiple sclerosis, cancer, and post-herpes simplex virus exposure.¹ The hallmark of this type of pain is allodynia or the elicitation of pain by a stimulus that is not normally considered noxious, such as light touch, pressure, or mild temperature changes.² In addition, PNP is often described as numbness, burning, tingling, or as a "pins and needles" sensation.^{1,3} It may be acute or chronic, and can remain a problem long after the precipitating event has resolved.

Pharmacologic treatment options for PNP include antidepressants, anticonvulsants, opioid analgesics, and a few other classes of medications (see table III). In general, the following key points should be considered when developing a treatment strategy for PNP:

- **Tricyclic antidepressants (TCAs) are the mainstay of PNP treatment.** A 2005 meta-analysis found that 3.5 patients had to be treated with TCAs for one patient to have a 50% reduction in neuropathic pain.⁴
- **Anticonvulsants have likewise been extensively studied.** The above-mentioned meta-analysis found that 2.3 to 3.8 patients had to be treated with anticonvulsants for one patient to have a 50% reduction in neuropathic pain.⁴ Gabapentin (Neurontin®) and pregabalin (Lyrica®) are the only two anticonvulsants with FDA approval for PNP.
- **Among newer antidepressants, the Serotonin Norepinephrine Reuptake Inhibitors (SNRIs) duloxetine (Cymbalta®) and venlafaxine (Effexor®) have the most data.** Duloxetine is FDA approved for diabetic neuropathy based on two randomized controlled trials.^{5,6} Venlafaxine has not been approved for this indication, but has been shown to be effective in small trials.⁷⁻⁹
- **Tramadol (Ultram®) has proven efficacy in the treatment of PNP based on several large randomized controlled trials.** Smaller trials have compared tramadol to TCAs and morphine, but were inconclusive.¹⁰

- **Opioid analgesics also have demonstrated efficacy, but many practitioners avoid use in this setting.** Recent consensus guidelines from the American Society of Pain Educators recommend controlled-release oxycodone (OxyContin®) as a first-line agent; however, these guidelines are based on the number of trials available, not the quality of evidence.¹¹
- **Other agents, such as topical lidocaine, capsaicin, older anticonvulsants, and other antidepressants can be considered when treatment failure occurs.**

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