

Clinical Briefs in Primary Care™

The essential monthly primary care update

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Use of Hip Protectors in Nursing Homes

Source: Meyer G, et al. *BMJ*. 2003; 326:76-78.

DESPITE THE FACT THAT USE OF HIP protectors (HIP) has demonstrated excellent outcomes reduction when used among elderly persons ie, as much as a 50% reduced incidence of hip fractures, actual use among at-risk populations is markedly suboptimal. For clinicians who have not seen hip protectors before, they are disk-shaped cushions that can be worn under clothing to act as a mechanical defense if a patient falls.

One of the reasons for tepid responsiveness of senior citizens to use of HIP may be inadequate education of healthcare providers and nursing home staff. To that end, Meyer and associates studied a 2-part intervention in 86 German nursing homes. The initial intervention included a 60-90 minute education session for nursing home staff about risk factors for hip fracture, consequences of hip fracture, and effectiveness of hip protectors. Staff was also instructed in steps to address potential obstacles to successful HIP implementation. HIP-educated staff members were assigned to provide a similar information base to resident patients in their nursing homes. Nursing staff also used a documentation sheet on resident falls and their outcomes. HIP were provided for residents free of charge in the intervention group. The control group ("usual care") received a brief informative demonstration of HIP, and 2 HIP for demonstration purposes. The primary end point of the trial was hip fracture. The secondary end point was frequency of HIP use.

The relative risk of hip fracture was 0.57 in HIP users (NNT = 29). Frequency of HIP

use was significantly higher in the intervention group (68% vs 15%). Use of HIP, especially when accompanied by an intensive staff education, can reduce hip fractures by more than 40%. ■

Disclosing Unanticipated Outcomes and Medical Errors

Source: O'Connell D, et al. *J Clin Outcomes Man*. 2003;10(1):25-29.

ACCORDING TO THE 1999 INSTITUTE OF Medicine report, medical errors are an important cause of loss of life, resulting in as many as 98,000 deaths annually in the United States. The Lexington, Kentucky VA has followed a policy of full disclosure about medical errors for more than 15 years. They rank in the lowest quartile of VA centers for liability costs, which appears to have resulted not from a reduction in the frequency of malpractice claims—indeed, the absolute number of claims actually has increased—but rather from willingness of injured persons and their families to negotiate fair settlements, after complete and open disclosure.

Steps in adequate disclosure after unanticipated adverse outcome *without* medical error should include: 1) Without defensiveness, be aware of and respond to the needs of the patient and their family; 2) Keep family members apprised of continued clinical care progress; 3) Clarify how the unanticipated outcome may have occurred; 4) Communicate your understanding, empathically, of the concerns of the family; 5) Acknowledge the areas of uncertainty, with an offer to clarify these areas as soon as possible.

When medical error has led to injury, addi-

tional steps should include 1) apology and acceptance of responsibility—reluctance to provide a full accountability may actually drive patients to seek legal counsel; 2) determine who best should be included in future disclosure conversations and identify an individual to respond to the family's nonclinical (eg, financial compensation) inquiries; and 3) be proactive in addressing the patient's financial needs, such as costs of family members needing to stay in hotels for a prolonged hospital stay. ■

Non-Invasive Positive Pressure Ventilation to Treat Respiratory Failure Resulting from Exacerbations of COPD

Source: Lightowler JV, et al. *BMJ*. 2003;326:185-187.

WHEN THE TRADITIONAL INTERVENTIONS (eg, bronchodilators, steroids, antibiotics, oxygen) for COPD exacerbation are insufficient to reverse clinical deterioration, clinicians typically rely upon invasive ventilation, with its attendant morbidity, and occasional difficulty in weaning. Noninvasive positive pressure ventilation (NPPV) provides an air/oxygen mixture from a flow generator through a full facial or nasal mask. The subsequent unloading of flagging respiratory musculature enhances respiratory efficiency. Failure rates of this technique have been reported between 9-50%. Lightowler and colleagues performed a Cochrane review and meta-analysis to ascertain effectiveness of

NPPV in patients with respiratory failure secondary to COPD exacerbations.

NPPV, when coupled with usual medical care of COPD exacerbations, was shown to significantly reduce mortality (59%), need for intubation (58%), treatment failure (49%), complications (68%), and length of hospital stay. These data should encourage clinicians to use NPPV earlier in the therapeutic course, before serious acidosis ensues. ■

Effect of Ibuprofen on Cardioprotective Effect of Aspirin

Source: MacDonald TM, Wei L. *Lancet*. 2003;361:573-574.

A SUBSTANTIAL AMOUNT OF LITERATURE supports the efficacy of aspirin (ASA) for primary and secondary prevention of cardiovascular disease. The benefits of aspirin for reduction of cardiovascular risk are generally attributed to effects on platelets, mediated by ASA-induced cyclooxygenase-1 inhibition. Earlier in vitro data have indicated that ibuprofen (IBU), but not rofecoxib or diclofenac, competes with the effects of ASA upon platelets, and might hence reduce or abolish the cardioprotective

effects. Whether this is reflected clinically has not yet received sufficient scrutiny.

MacDonald and Wei studied more than 7000 persons in the United Kingdom who carried a hospital discharge diagnosis of MI, angina, stroke, PAD, or TIA, were on low-dose ASA (£ 325 mg/d), and survived for at least 1 month post-hospital discharge. This population was further subdivided into persons who concomitantly received IBU (n = 187), diclofenac (n = 206), any other NSAID (n = 429), or no other NSAID (ie, ASA alone n = 6285). The outcomes of the study were all-cause mortality or cardiovascular mortality.

All-cause mortality in the ASA + IBU group was significantly higher than in the ASA alone group (P = 0.0011), but persons who used ASA in combination with other NSAIDs did not show an increased risk. Data on cardiovascular mortality were similar to that demonstrated for all-cause mortality.

MacDonald and Wei conclude that these data support the possibility that the combination of IBU with ASA may be deleterious toward cardiovascular and total mortality risk, when compared with persons taking ASA alone. The NSAID comparators, other than IBU, did not display a similar detractor to the cardiovascular benefits of ASA. ■

Antidepressant Drug Treatment in Depressive Disorders

Source: Geddes JR, et al. *Lancet*. 2003;361:653-661.

PHARMACOTHERAPY FOR DEPRESSION IS generally recognized to be effective to produce remission in the majority of sufferers. The recommended duration of treatment of depression has undergone evolution, subsequent to the observation that brief treatments (4-6 months, or less), subject the patient to an increased risk of relapse and recurrence.

Geddes and colleagues studied the efficacy of antidepressant treatment to prevent recurrence when continued into long-term (ie, > 6 months) treatment. Pooling data from 31 randomized trials (n = 4410), they evaluated the likelihood of relapse when a patient continued whatever pharmacotherapy had effected a remission, compared with the relapse rate for persons on placebo. The antidepressants included in the meta-analysis include tricyclics, SSRIs, and heterocyclic agents.

The results were consistent across all antidepressants evaluated: continuing therapy reduced the risk of relapse by approximately one half. Only 6 trials reported very long-term data (> 2 years), but even in this patient population, continued antidepressant therapy reduced risk of relapse by more than 50%.

Geddes et al conclude that in persons who respond to antidepressant therapy, continuation of medication produces substantial reduction in likelihood of relapse, which does not appear to diminish even in long-term maintenance trials. ■

Adverse Drug Events Among the Elderly in the Ambulatory Setting

Source: Gurwitz JH, et al. *JAMA*. 2003;289:1107-1116.

WHEN ONE CONSIDERS THAT MORE than 90% of persons older than age 65 use at least 1 medication per week, and that more than 40% of these individuals use 5 or more medications per week, it should come as no surprise that adverse events, even in the ambulatory setting, may occur. Although more attention has been given recently to hospital and nursing home medication misadventures, less scrutiny of ambulatory adverse events, and their potential for prevention, is available.

The population studied (n = 27,617) comprised predominantly persons enrolled in a Medicare + Choice Plan. Adverse events were tabulated for a 12-month period. When adverse events related to medications were identified (n = 1523), a physician panel adjudicated whether the event was preventable.

Cardiovascular drugs were the class most often represented by adverse effects (26%), followed by antimicrobials (14.7%), diuretics (13.3%), non-opioid analgesics (11.8%), and anticoagulants (7.9%). More than one fourth of the adverse medication related events were judged preventable by the clinician review. Among the serious, life threatening, or fatal adverse events, a substantially greater portion was judged to be preventable: 42.4%.

Medication-related adverse events are commonplace and not infrequently serious. Since a substantial number of such events are judged to be preventable, enhanced strategies for risk reduction are needed. ■

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