



# Clinical Digest

## INTERNAL MEDICINE

### Does Prior Hospitalization Predict Antibiotic Resistance?

Recent hospitalization is an underrecognized risk factor for ineffective empiric antibiotic therapy, according to a prospective cohort study by researchers from Duke University Medical Center, Durham, NC and Monash Medical Centre, Clayton, Victoria, Australia. They analyzed 466 inpatient episodes of bloodstream infection that occurred at three North Carolina hospitals over a four-month period, looking for connections between poor outcomes and patients' recent contact with various health care settings.

The researchers categorized the infections as health care-associated, nosocomial, or community-acquired. Health care-associated infections were those that developed within 48 hours of admission in patients who had received outpatient intravenous therapy, home health care, or renal dialysis in the past

month or had been admitted to an acute care hospital or long-term care facility for at least two of the previous 90 days. Other infections that developed within 48 hours of admission were considered to be community-acquired; those that developed more than 48 hours after admission were classified as nosocomial.

According to these criteria, 178 infections (38%) were health care-associated, 156 (33%) were nosocomial, and 132 (28%) were community-acquired. Compared with community-acquired infections, health care-associated infections were three times as likely to receive ineffective initial antibiotic therapy. Among the various encounters that defined the health care-associated category, only acute hospitalization within the past 90 days independently predicted ineffective empiric therapy.

The researchers speculate that colonization with resistant microorganisms during the earlier admission predisposed these patients to subsequent infection with resistant organisms. Moreover, they say, clinicians didn't recognize the prior hospitaliza-

tion as a risk factor for resistant infection.

Source: *Arch Intern Med.* 2005;165:308-313.

## PALLIATIVE CARE

### Alcohol Withdrawal in Terminal Cancer

In patients with advanced cancer, terminal restlessness or agitated delirium may be due to multiple causes, including disease or drug effects on the central nervous system and organ dysfunction. While alcohol withdrawal also is recognized as a possible contributor, its role may be underrated, say clinicians from Redcliffe Hospital, Queensland, Australia.

They report on five patients for whom alcohol withdrawal was a major factor in terminal restlessness. Each had a long history of heavy drinking (six to eight standard drinks per day). One had stopped drinking two months earlier, but the clinicians point out that alcohol withdrawal symptoms can continue for six to 12 months.

In the first four cases, patients' agitation and rest-

lessness abated only in the last few days of life with continuous infusions of high dose opioid and sedating agents (such as morphine, midazolam, and phenobarbitone). Recognizing the prevalence of alcohol withdrawal in their patient population, however, the clinicians were able to assess the fifth patient's situation earlier and prescribe an outpatient regimen of oral agents. This regimen controlled the patient's symptoms and allowed him to care for himself at home until his last 24 hours.

Although palliative care staff may feel uncomfortable asking terminal patients about current or past alcohol use, the clinicians recommend that all such patients be assessed formally. And when alcohol withdrawal is suspected, they advocate early use of a continuous subcutaneous infusion of midazolam, with subcutaneous phenobarbitone as needed. In this setting, they say, adjuvant analgesic and anti-inflammatory medications and psychosocial support are unlikely to be effective. ●

Source: *J Pain Symptom Manage.* 2005;29:104-108.