

# Quality Lines

David P Stevens, Editor

## PREVENTABLE ADVERSE EVENTS LEADING TO HOSPITAL ADMISSION

Errors and related harm in ambulatory care offer opportunities for safer patient care. A review of 14 700 hospital discharge records from two US states found 70 ambulatory care adverse events, of which 31 were preventable. Preventable events occurred most commonly in physicians' offices and the emergency department. Such events were less common in day surgery, but these caused the greatest patient harm. Overall, 10% of preventable adverse events resulted in serious permanent injury or death. When these findings are weighted for the general population, there are an estimated 75 000 hospitalisations per year attributable to preventable adverse events that occur in outpatient settings in the US, resulting in 4839 serious permanent injuries and 2587 deaths.

See p 127

## USING TRIGGER PHRASES TO DETECT ADVERSE DRUG REACTIONS IN AMBULATORY CARE NOTES

Adverse drug reactions (ADRs) are an important patient safety issue, and they are increasingly, and systematically, evaluated in hospitalised patients. Detection of ADRs in the ambulatory setting, however, is frequently a random and manual process. This report describes a monitoring system to better detect ADRs through the analysis of electronic ambulatory care notes, taken from 2 years' worth of visits to an urban primary care medicine clinic. Using "trigger phrases" related to the discontinuation of or non-compliance with prescription medications, ADRs were detected in a sample set of 1250 notes with a sensitivity of 31%, a positive predictive value of 45% and a specificity of 98%. Refinement of this detection algorithm should provide a vigilant system to detect ADRs in a large, integrated healthcare delivery network.

See p 132



## QUANTIFYING DISTRACTION AND INTERRUPTION IN UROLOGICAL SURGERY

Distraction occurs in all lines of work; however, one would expect little interference to work in the operating theatre. When investigators studied distractions or interruptions to members of surgical teams, an average of one event occurred every 2 minutes. These distractions included equipment problems, communications, and visits from external staff. These observations argue that there is good reason to distinguish high and low levels of work interference in healthcare, to identify its source and to show its effects on performance. Both observational and self-reporting measures will be useful for improving the design of work and for enhanced patient safety.

See p 135

## BARRIERS IN HOSPITALS TO OPTIMAL ANTIBIOTIC USE FOR COMMUNITY-ACQUIRED PNEUMONIA

Improvement of clinical systems to achieve timely administration of optimal antibiotics for community-acquired pneumonia continues to encounter barriers. To explore these barriers, semi-structured interviews were conducted with care providers in three Dutch hospitals, exploring recommendations about the prescription of antibiotic treatment in accordance with national guidelines, timely administration of antibiotics, switching and streamlining treatment, and blood and sputum culturing. Each recommendation elicited a different type of barrier. They included organisational factors, for example delayed laboratory results, antibiotics not directly available and lack of time; concerns about patient outcome when prescribing narrow-spectrum antibiotic treatment; conflicting guidelines; and physicians' attitude of "never change a winning team". These findings confirm the value of targeting each guideline with a strategy tailored to its specific barriers.

See p 143