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Improving communication to reduce adverse events in hospitals

The inability to communicate properly to hospital staff because of a disability or language barrier increases the risk of getting the wrong medication or receiving the wrong medical treatment. This finding comes from an analysis of 2355 randomly selected charts of patients treated in one of 20 Quebec general hospitals in 2000/2001. The analysis by Montreal-based researchers identified 217 adverse events, of which 29% were judged to be preventable. When these events were evaluated more closely, it was found that such events were 3 times more likely if the patient had a communication problem such as deafness. These events were usually related to medication errors or caused by poor treatment. Dr. Allan Frankel with the Institute of Healthcare Improvement in Cambridge, Mass., said the findings “highlight major known flaws in how health care is delivered. It comes as little surprise that elderly women, those who are admitted to hospital because of an emergency and those with an impaired ability to communicate with health care providers because of a foreign language, deafness or a psychiatric disorder were the patients most likely to receive inadequate care,” he wrote. Ensuring patients know how to take care of themselves is an important step in making sure they get the proper care, he noted.

Postdischarge care after joint replacement surgery

Many patients appear to be sent home from the hospital after hip or knee replacement surgery without receiving drugs to prevent blood clots, which can be a major cause of death. That’s the conclusion from a review of the treatment of 10,744 elderly Quebec patients who underwent elective joint replacement surgery and were discharged from the hospital to their home between 1997 and 2004. Researchers from McGill University who conducted the study found only 19% of this group received drugs such as warfarin or heparin to prevent development of a thromboembolism, as recommended in clinical guidelines. Those who did receive the appropriate medication had a lower short-term risk of death after discharge compared with those who did not. Two McGill University physician experts who assessed the findings wrote that better patient education and more standard hospital policies for discharging these patients on the right drugs may be critical to improving the situation.



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Osteoporosis screening and treatment

A large ongoing study of osteoporosis in Canada is providing new insights into the mechanics of bone loss and the best way to screen for this condition. The Canadian Multicentre Osteoporosis Study involves almost 10,000 adults living in or near 9 Canadian cities who are assessed periodically to measure changes in bone density. Using data from this study, a team headed by McGill University researchers in Montreal assessed the rate of bone loss over time, both with and without the use of antiresorptive drugs such as bisphosphonates. They found that for women bone density starts to decline before the onset of menopause and that both men and women have accelerated bone loss after age 70. They also found that the use of the anti-resorptive drugs can protect against this loss. As a result of their findings, the team said screening for bone loss using densitometry could be repeated every 5 years rather than the currently recommended 2-3 years, because changes in the shorter time period are relatively small. In commenting on the study, British expert Dr. Mark Cooper from the University of Birmingham agreed that for individuals with normal bone density levels and without additional risk factors, extending the interval between assessments to 5 years is safe.

FROM TOP: ISTOCKPHOTO; WILLIAM HOPKINS/ISTOCKPHOTO

Treating acute pain in babies and children

Researchers are looking for new ways to reduce the pain felt by newborns and older children from injections and other standard procedures. A Toronto team headed by researchers from the University of Toronto showed some success in giving a sugar solution to babies born to diabetic and nondiabetic mothers prior to injections within



two days of birth. The study, which compared the 24% sucrose solution to a placebo, showed a modest reduction in pain overall. However, the solution was found to significantly and safely reduce the pain associated with taking blood samples. Another study at the Children's Hospital of Eastern

Ontario in Ottawa showed the effectiveness of using a rapid-acting, skin-cooling spray at the site of insertion of an IV tube with children aged 6-12 years. When compared with the use of a placebo, the spray reduced the amount of pain and improved the success rate of the procedure. Dr. K.J.S. Anand, a critical care expert from the University of Arkansas for Medical Sciences in Little Rock, commented on the two studies. He said the discovery of a safe and effective approach to pain management in newborns and children that does not use drugs would be a major advance because of the problems associated with the current reliance on opioids.

Potential dangers of taser use

Three independent investigators have shown that stun guns such as tasers can stimulate the heart and potentially fatally disrupt the heart's rhythm. This, despite the fact that theoretical and animal studies suggest it is not possible and that stun guns are a safe method for subduing individuals. Investigators from the University of Toronto evaluated the literature around the use of tasers and other devices that deliver a short electrical pulse of high-voltage current. Based on their findings, the researchers concluded that in real-world settings it would be "inappropriate" to state that stun guns cannot have an adverse effect on the heart. In a related editorial, CMAJ deputy editor Dr. Matthew Stanbrook noted that media reports have linked taser use to 300 deaths, 20 of them in Canada.

