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## Guiding the Transition To Comfort Care

BY SUSAN LONDON

Contributing Writer

VANCOUVER, B.C. — The transition from palliative care to comfort care is a key patient management issue that hospitalists must often face, according to Dr. Wendy Yeomans, medical manager of the palliative care unit at Vancouver Acute Health Services.

While palliative care may include such active treatments as surgery, antibiotics, and transfusions, comfort care entails only symptom control at the end of life.

In many cases, the process of changing the goals of care from palliation to comfort care "takes lots of discussion with the family," she said, recommending that clinicians start these discussions early on.

"As hospitalists, you face the challenge that you don't have long-standing relationships with these patients," Dr. Yeomans said at the annual Canadian Hospitalist Conference. "It's very difficult sometimes to change the goals of care in the middle of the night instead of just giving the patient an antibiotic. It's a challenge that we all struggle with."

To undertake these discussions, Dr. Yeomans recommends being proactive when addressing patients' and families' fears that ending active treatment will lead to greater suffering.

"We have to be prepared to explain what comfort care is and that these are the things we are going to do to make them more comfortable," she said.

When discussing with families the positive side of not doing cardiac resuscitation, for example, it's helpful to explain "that it is most appropriate not to resuscitate someone when they are dying." Similarly, withdrawing an IV is often in the patient's best interests if he or she is edematous and congested.

Families concerned that withdrawing a feeding tube will lead to starvation can be reassured that the patient is dying of his or her illness and that loss of appetite is part of the natural process of death, Dr. Yeomans said.

"You can also say that when someone is dying, tube feeding is sometimes harmful—it increases secretions, it makes them have lots of cramps, and it increases their

Keep the patient's best interests as your

focal point, she advised. "Just because we're not going to give [dying patients] antibiotics doesn't mean that we're not going to deal with their fever, cough, and shortness of breath."

When dealing with pain, a common challenge is the need to switch from one opioid to another because of adverse effects. Dr. Yeomans contended the key to achieving good pain control is relying on just a few drugs and using them appropriately.

When moving from oral morphine to subcutaneous or intravenous morphine, only half the dose is needed because digestive metabolism of the drug is bypassed. Hydromorphone, a more potent derivative of morphine, should be given at even lower doses.

When switching to a parental dose will require subcutaneous administration of large volumes of fluid, consider using the intravenous route instead, she said.

"Opioid toxicity comes about because there are certain types of pain that are not opioid responsive," she observed. When patients with such pain get only partial relief with an opioid, they take more and more of the drug, eventually leading to neurotoxicity.

The conventional approach to managing opioid toxicity has been to switch opioids and hydrate the patient. "But I would say what you need to do, especially in patients [with complex pain], is to use adjuvant therapy," an approach that often allows a reduction in opioid dose.

For colicky pain, Dr. Yeomans recommended using an anticholinergic agent such as hyoscine. Antimotility agents and octreotide are also considerations, but both can exacerbate constipation.

Neuropathic pain can be controlled with tricyclics; gabapentin; steroids; or clonazepam, which is especially effective for retroperitoneal pain, according to Dr. Yeomans. However, patients at the end of life have often exhausted these options by the time they are hospitalized. In that case, additional options include methadone, ketamine, and lidocaine, all of which require expertise and close collaboration with palliative care colleagues.

Dr. Yeomans reported that she had no conflicts of interest regarding her presentation. The conference was sponsored by the University of British Columbia.

## Interhospital Transfer Predicts Mortality Risk in Blunt Trauma

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BY JEFF EVANS
Senior Writer

Taking patients with major blunt trauma injury to hospitals that lack a high-level trauma center rather than straight to a level I trauma center may be associated with a higher odds of death, according to findings from a retrospective study

Although the time interval between injury and reaching definitive care has been positively associated with mortali-

ty, no other study has found interhospital transfer to be a predictor of mortality, independent of a delay in care, according to Dr. Raminder Nirula of the department of surgery at the University of Utah, Salt Lake City.

Injured patients often are brought to a nearby facility, but little treatment is done until they are sent elsewhere for a higher level of care, he explained. "Does that

pose a risk to the patient, and would it be better to take the patient straight to the higher level of care if it's recognized [by the EMS team] that they're going to need it?" Dr. Nirula said in an interview.

At the core of this question is when and how often it is beneficial to stop at the nearest facility to perform interventions that EMS personnel cannot do. If a lower-level facility is not going to begin definitive treatment, "why stop?" he asked.

Dr. Nirula and his colleagues examined the outcomes of 787 patients who were initially triaged to eight level I trauma centers (including one at the University of Utah Health Sciences Center) and 318 who were initially taken to a nontrauma center and later transferred to one of these level I trauma centers. The patients were part of the Inflammation and Host Response to Injury cohort study, an ongoing multicenter, prospective analysis of the relationship between the inflammatory response to injury and posttraumatic multiple organ failure.

The institutions classified as "non-trauma centers" by the investigators

were level II-V trauma centers or community hospitals without a designated trauma center.

Patients who went to a nontrauma center before going to a level I trauma center had about a threefold increase in odds of death, compared with those who were sent directly to a level I trauma center, according to Dr. Nirula, who presented the study at the annual meeting of the American Association for the Surgery of Trauma in Maui, Hawaii.

In multivariate logistic regression

analyses, this association remained largely the same regardless of whether clinically relevant factors (trauma center site, significant traumatic brain injury, and receipt of crystalloid or blood transfusion before arrival at a trauma center) were included along with independent predictors of mortality (age, injury severity score, interhospital transfer, time from injury to arrival at the trauma center, and APACHE II

score). Exclusion of patients who died within 24 hours did not change the association.

Even though Dr. Nirula and his coinvestigators controlled their analysis for injury severity and physiologic status, no data were available about any interventions performed at the receiving hospital before patient transfer. Such data would help to determine if triage to a nontrauma center were necessary.

A prospective study will help to answer why interhospital transfer is an independent predictor of mortality. It will be important to determine the influence of interventions (or lack thereof) that patients undergo at hospitals before being transferred to a higher-level trauma center, Dr. Nirula said.

The level of EMS training and the type of medical care provided by EMS vary across locations, which may influence transport decisions. Studies of prehospital life support from EMS have reported mixed results on the reduction of mortality. Some studies have shown benefits to advanced trauma life support, whereas others have shown benefits to basic life support alone.

## AHRQ Finds Medical Error Reports Tend to Underestimate Costs

BY JANE ANDERSON

Contributing Writer

Medical error studies that focus only on inpatient stays—not taking into account hospital readmissions and other patient care—may underestimate costs by up to 30%, according to an analysis of millions of health insurance claims.

William E. Encinosa, Ph.D., and Fred J. Hellinger, Ph.D., researchers at the Agency for Healthcare Research and Quality, examined a database of 5.6 million insurance claims for 14 potentially preventable adverse medical errors

defined by the agency's Patient Safety Indicators (PSIs).

"Many hospitals are struggling to survive financially," Dr. Encinosa said in a statement. "The point of our paper is that the cost savings from reducing medical errors are much larger than previously thought."

A total of 2.6% of the 161,004 claims for major surgery in an adult included at least 1 of the 14 potentially preventable adverse medical errors; almost 6% of those claims had more than 1 error (Health Services Research 2008 July 25 [doi:10.1111/j.1475-6773.2008.00882.x]).

Total 90-day cost for surgery claims with one or more errors was \$66,879 on average, compared with \$18,284 for

surgery claims without an error. In addition, surgeries with one or more errors averaged 21.5 inpatient days, with 5.3 of those days occurring on readmission, the researchers found. In contrast, surgeries without an error averaged 5.1 inpatient days, with just 1 day of readmission.

Errors associated with the postoperative acute respiratory failure PSI were the most expensive of the seven patient-safety event classes, costing an average of \$106,370 over the 90-day period, along with the highest 90-day death rate (12%), according to the researchers. Readmission costs for the postoperative acute respiratory failure PSI averaged \$12,274.