High index of suspicion for fracture in frail elderly warranted

Health-care professionals are reminded to have a high index of suspicion of fracture or significant injury in frail, immobile seniors even in the absence of known trauma and definitive clinical signs of trauma, reminds a Committee of the Chief Coroner’s Office.

The reminder is made by the Geriatric and Long-Term Care Review Committee after reviewing the case of a 75-year-old woman who died in a long-term care facility.

The woman had been confined to a wheelchair as a result of a hemiparesis from two previous strokes and osteoarthritis. She was legally blind due to diabetic retinopathy and glaucoma. She required a mechanical lift for transfers. She had previous complaints of knee pain. On or around December 19, 2010, she probably sustained a tibial plateau fracture that was not confirmed by X-ray until January 13, 2011. She was treated conservatively with splinting and analgesia.

On March 10, 2011, she had fever and was treated for a urinary tract infection. The patient was again transferred to hospital a week later because of a febrile illness and respiratory difficulties. She was found to be in respiratory failure and required intubation and ventilation. She was subsequently extubated but was diagnosed with pneumonia. She died in hospital on March 30, 2011.

Early in March, it was recognized that she had increased problems with swallowing and the diet texture was changed. There were problems with positioning of the neck. Hyperextension was thought to be interfering with swallowing. The committee suspects that she developed aspiration pneumonia as a result of her dysphagia. It is difficult to definitively link her death from pneumonia to a minimally traumatic fracture that possibly occurred three months earlier.

The MOHLTC carried out an inspection as a result of this critical incident. Orders and written notices were directed to the facility. A risk management review was carried out and a corrective action plan was put in place.

In the risk management review conducted by the long-term care home, staff members were extensively interviewed. They did not appear to recognize a significant change in the patient’s behaviour or status as she had a long-standing complaint of knee pain.
In addition, the electronic medication record for “as needed” medications did not display a long enough time line for staff administering medications to notice that there was an increase in the “as needed” medication use in the latter part of December. Staff also indicated that they did not suspect a significant injury as there was no recognized traumatic event. According to the coroner, it was the opinion of the orthopedic surgeon that it would not have taken significant force to cause a fracture in this elderly woman who was an immobile diabetic with severe osteoporosis and that the injury could have occurred during a transfer. The surgeon felt that if an X-ray had been done when first requested by the family, it would have resulted in a diagnosis and more timely care of the patient with analgesics and other measures to reduce her pain level, such as splinting the left leg and non-weight bearing during transfers.

The risk management review conducted by the long-term care home also examined communication issues between the physicians and nursing staff, particularly over the holiday season. There was some question as to why the long-term care home did not transport the patient to the emergency department at the hospital for an evaluation, particularly when faced with the difficulties of having a physician assessment at the home. There was an indication that some long-term care homes have felt criticized in the past for sending too many residents to the emergency department. While the patient did not necessarily require transfer to an emergency department, she did require an adequate on-site assessment and ordering of mobile X-rays.

The Regional Supervising Coroner requested a review of this case. The investigating coroner identified communication between nursing staff and family as well as the attending physicians, as a root cause of the problem. An investigation was carried out by the MOHLTC in which there were two orders and six written notices directed to the long-term care home.

The Regional Supervising Coroner subsequently had all deaths in the long-term care home investigated over a six month period. There were no further quality of care issues identified.

Recommendations to health-care professionals

1. Health-care professionals should have a high index of suspicion of fracture or significant injury in frail, immobile seniors even in the absence of known trauma and the absence of definitive clinical signs of trauma.

2. Long-term care homes should ensure the availability of clinicians (i.e., physicians or Registered Nurses – Extended Class) to assess residents on site in the event of a change in resident status.

3. Long-term care documentation tools should allow staff to identify trends in pain, behaviour or medical care that might imply a significant change in health status.