

# **Risk of Sharps Injuries to Home Care Nurses and Aides: A Systematic Review and Meta-Analysis**

Brouillette et al, JOEM (2017)

This research paper presents an estimate of the risk to home care nurses and home care aides of injury from sharp medical devices. The risk was estimated by combining the data from five separate research studies published between 2009 and 2017 involving home healthcare (or home care) workers. The total population of home health nurses across the five studies was 3,152. The total population of home care aides across the five studies was 2,440. The studies involved home care workers in the states of Illinois, New York, North Carolina and Massachusetts. The weighted average annual risk of a sharps injury during the period of the study was estimated to be 5.25% for home health nurses and 1.74% for home care aides.

## **Employers and other Stakeholders**

What is the relevance of the research findings?

Home healthcare providers – including home health nurses and home health aides -- are performing more complex medical care tasks within patients' homes. These patients often have a health condition that requires the use of sharp medical devices (called sharps), for example, lancets for diabetic blood testing, hypodermic needles for injections, IV infusion and dialysis treatment. The presence of sharps in a home increases the likelihood that home healthcare providers will experience a sharps stick injury. A sharps injury from a previously used device exposes the home healthcare provider to bloodborne pathogens which can cause a serious infectious disease, such as (but not limited to) HIV/AIDS, and Hepatitis B and C.

The risk of a sharps injury is significantly increased if the home health nurse or aide:

- Assists a patient with the use of the sharps device
- Works in a patient's home where sharps are not properly disposed of in a safety container
- Works with a patient who behaves aggressively

## Intervention Opportunities

Employers can reduce the safety and health risks associated with exposure to occupational hazards through hazard recognition and control training - for example at orientation for all types of home health workers, during continuing education opportunities for home health nurses, and during in-service training opportunities for home care aides. In addition, employers and their referral networks can screen patients' homes at in-take and regular assessments for the presence of hazards and determine best ways to manage them.

Increased education and awareness of sharps injury risk among patients and their family members also reduces the potential for a sharps injury among the home health provider workforce. Strong advocacy

for the development and prescribing of needle-less systems or sharps with safety features is another important way to prevent sharps injuries. Employers can also support their home health provider workforce with an effective “lone worker program” to provide continuity of contact in the event of an emergency.

### **Home Health Providers and their Advocates**

Here are some steps that home health providers can take to protect themselves from sharps hazards in clients' homes:

- Use universal precautions to protect from exposure to potential infectious agents in body fluids or waste
- Find out how sharp medical devices are disposed in the home If the client uses them
- Do not assist clients with using sharps unless qualified by proper training
- Move away from the client if the client becomes violent or abusive. Then contact the employer and follow the procedure the employer has in place