

**Health Authorities Health Professions Act Regulations Review Committee**

**Licensed Practical Nurses and the  
Intravenous Administration of Medications**

November 13, 2004

**I. Issue**

Health authorities have requested clarification on the ability of Licensed Practical Nurses (LPNs) to administer intravenous medication.

The College of Licensed Practical Nurses of Alberta (CLPNA) revised and updated their Alberta Health and Wellness approved LPN Competency Profile in September 2004. The 2<sup>nd</sup> Edition Competency Profile specifically notes the administration and infusion of intravenous medications, including the addition of medications to intravenous solutions. The need for clarification has arisen because of the perceived precedent relating to specific authorization in the LPN Regulation under the HPA for intramuscular and intradermal injections and vaccinations, but no mention of intravenous medications.

**II. Background**

LPNs have been regulated the Health Professions Act since April 2003. Consistent with the majority of HPA Regulations, the LPN Regulation under the HPA does not specifically mention intravenous administration of medications. The provision of this health service is presumed under the restricted activity that is referenced in Sections 13 (1) and (3):

*13 (1) Regulated members are authorized, in accordance with this section, to perform the restricted activity of administering anything by an invasive procedure on body tissue below the dermis... (3) Only regulated members who have completed advanced training approved by the Council are authorized to perform the restricted activity referred to in subsection (1) for the purposes of ... insertion of an apparatus for supplying medications or fluids."*

LPNs have been authorized to provide medicated and non-medicated fluids by intravenous lines since 1997. Section 7 (1) of the LPN Regulation (repealed in 2003) under the Health Disciplines Act provided that an LPN:

"(2)... may provide the following services: (c) assess and maintain intravenous infusions if the Licensed Practical Nurse has graduated after 1994 from an approved program of studies, or has completed advanced training approved by the Health Disciplines Board."

This authorization permitted recognized LPNs to start peripheral intravenous lines, change medicated and non-medicated infusions, prepare and change tubing setups, monitor the infusion, and potentially discontinue treatment. The only stipulation in practice was and still is a prohibition from engaging in "direct IV pushes."

### **III. Discussion**

LPNs have a background in pharmacology and medication administration, through enhancements to basic education and post-basic mandatory education in 1999. Regulation under the HPA since 2003 provides authorization for the full range of medication administration, which includes preparation and administration of medications via authorized routes.

Intravenous therapy complements other routes of medication administration, which includes oral, subcutaneous, intramuscular, intradermal, rectal, vaginal, transdermal, and through inhalation.

Antibiotics, potassium chloride (for electrolyte imbalances), and vitamins are the most common intravenous medications administered in hospital in-patient, day surgery, out-patient and home care settings. The Pharmacy Department prepares pre-mixed intravenous solutions in the majority of instances, however LPNs can mix appropriate medications for intravenous administration.

Administration of intravenous medications is a competency gained by all graduates of approved programs as of June 1, 2004. Health authorities and other employers may provide "on-the-job" mentorship and in - services for LPNs who graduated prior to this time.

The in - service education can be developed based on the competencies outlined in the updated Competency Profile (Infusion Therapy - V) to assist LPNs to assume this component of their existing roles. The education needs to focus on the review of competencies and the actual technical skill of adding the medication to the infusion bag or buretrol.

The intent of the HPA and its Regulations is to enable practitioners to function to "full scope of practice," consistent with employer policies and procedures, which may vary by practice setting. Employer authorization for LPNs to prepare and administer intravenous solutions, when appropriate to their area of practice, will promote this concept in the provision of nursing care.