



POLICY NUMBER:	IPC-101.000
ISSUING AUTHORITY:	Infection Prevention & Control
ISSUE DATE:	September 21, 2004
REVISION DATE:	May 31, 2012

SUBJECT: FOOT CARE INFECTION CONTROL

BOARD POLICY REFERENCE:

- Executive Limitation (EL-2) Treatment of Clients
- Executive Limitation (EL-3) Treatment of Staff
- Executive Limitation (EL-7) Asset Protection & Risk Management

POLICY:

This document is intended for use by health care providers, including registered nurses, licensed practical nurses, registered psychiatric nurses and contracted foot care providers, providing routine foot care that is not intentionally invasive. The setting for the provision of foot care may include locations such as the home, elderly persons housing, community residences, personal care homes and acute care facilities.

These recommendations have been provided to assist health care providers in performing foot care with the intention of decreasing the transmission of pathogens and resulting infections. Health care providers should implement these recommendations into their daily practice so that infections associated with foot care can be prevented.

Causes of foot infections are grouped into three categories:

- ◆ Biomechanical factors i.e. trauma, foot defects.
- ◆ Manifestations of underlying general and systemic disease i.e. diabetes, arteriosclerosis.
- ◆ Infections, may be bacterial, viral, or fungal i.e. cellulitis, athletes foot.

NOTE: People living with diabetes are vulnerable to foot problems associated with peripheral vascular disease and neuropathy, producing a decreased sensation to pain and touch. Unsafe nail and foot care practices have been shown to contribute to foot trauma.

Sources and Reservoirs:

The micro flora of the foot include organisms that normally inhabit the skin and those that have been deposited on the skin. People cared for in health care institutions; people or who have damaged tissue have a greater risk of being colonized with organisms not normally found on the foot.

Microorganisms may be transmitted from person to person by direct contact, usually on the hands of health care workers or indirect contact; by vehicle transmission via foot care equipment.

Sources of infections are divided into two categories:

- ◆ Endogenous sources, caused by flora or infections on a persons own body i.e. staphylococcus aureus from the nose.
- ◆ Exogenous sources caused by infected or colonized people, animals or environmental sources.

Virus present in the blood of persons receiving foot care may create a risk of infection for others i.e. blood-borne pathogens such as Hepatitis B, Hepatitis C and Human Immunodeficiency Virus (HIV).

Any microorganism that comes in contact with mucous membranes, skin that is not intact, sterile tissue, or the vascular system have the potential to cause an infection. Instruments used in foot care that may break the skin must be sterile. Sterilization destroys all forms of microbial life.

PROCEDURE:

The goal of infection prevention practices for foot care is to eliminate the risk of transmission of pathogens between clients, and between clients and health care workers.

The following requirements shall be implemented when providing foot care in RHA-Central facilities/programs:

- ◆ All foot care equipment for re-use must be capable of being cleaned in a detergent and water to remove organic matter.
- ◆ Single-use items such as emery boards, orange sticks and rotary tool disks should be discarded after use. If a client's own equipment is used, it must be kept clean and dry.
- ◆ All instruments used for foot care must be sterile before use on a client. Instruments that must be sterilized prior to use, often packaged in sets, including the following:
 - Nail nippers
 - Black's file
 - Rasp
 - Nail probe
 - Callus parer
 - Scalpel handle
 - Foot dresser file.
- ◆ Required methods of sterilization for foot care instruments include dry heat, autoclave (steam under pressure) or chemical sterilant with exposure time as stated on the product label. Methods of cleaning, disinfection and sterilization are detailed in a Health Canada publication, *Infection Control*

Guidelines for Handwashing, Cleaning, Disinfection, Sterilization and Antisepsis in Health Care, Volume 24S8, December 1998.

- ◆ Glass bead sterilization is not effective and should not be used.
- ◆ **Boiling water and microwave ovens are not effective methods of sterilization** and must not be used.
- ◆ Hands must be washed with soap and water before beginning the foot care procedure. Hands must be washed before glove use and after glove removal. Waterless hand sanitizing agents may be used if hands are not visibly contaminated.
- ◆ Non-sterile single-use medical gloves shall be worn throughout the procedure to prevent exposure to bacteria, fungi and viruses.
- ◆ Gloves must be changed for each client. Hands should not be washed with gloves on.
- ◆ Eye shields or glasses shall be worn to protect the health care provider from nail clippings or debris.
- ◆ A disposable procedure facemask should be worn to reduce the possibility of inhaling organisms that may be aerosolized during filing of nails. The inhalation of nail dust has been associated with conditions such as conjunctivitis, rhinitis and occupational lung disease called podiatrists lung. Masks should fit snugly and be changed between clients.
- ◆ If the foot of the person receiving care is positioned on the lap of the health care provider, a towel, apron or disposable gown should protect the clothing of the health care provider.
- ◆ The use of a foot soak prior to foot care is controversial. Feet should be clean with skin intact. Feet should be washed with mild soap and water. If a foot basin is used, it should be washed with soap and water, disinfected, rinsed and dried thoroughly between clients.
- ◆ A skin antiseptic should be used to wipe areas of the feet that will be touched by a foot care instrument. If cotton balls are used, a disposable container shall be used to wet the cotton balls with antiseptic. Pre-packaged swabs are preferred.
- ◆ Emollients, such as lotions/ creams are often used to massage and moisturize the foot. Small, single use lotion bottles should be used and left with the clients. Squeeze the lotion onto the gloved hand without touching the bottle opening.
- ◆ If towels are used during foot care, the towel should be used for one client only. Clients should not walk with bare feet. Plantar warts are more frequently associated with users of public showers and sports centres.
- ◆ If the integrity of the skin is accidentally breached, the area should be wiped with a skin antiseptic and covered with loosely applied gauze. Constrictive adhesive dressing should not be applied to toes. A protocol should be developed for daily monitoring and documenting of the wound healing process.
- ◆ If used, blades on foot care instruments should be disposed of in an appropriate sharps container at the completion of each foot care treatment. Blades must not be re-used.
- ◆ Health care workers providing foot care should be aware of protocols for prevention of the transmission of blood borne pathogens i.e. recommendations for Hepatitis B immunization and management of accidental exposure to blood and body fluids.

EQUIPMENT/ SUPPLIES NEEDED:

- ◆ Nail nippers
- ◆ Black's file
- ◆ Rasp
- ◆ Nail probe
- ◆ Callus paper
- ◆ Scalpel handle
- ◆ Foot dresser file

REFERENCES:

Health Canada, (1997), Infection Control Guidelines: Foot Care by Health Care Providers, Canada Communicable Disease Report – Supplement, Volume 23S8. Pages 1 – 3.