



## Complete Summary

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### GUIDELINE TITLE

Assessment and management of venous leg ulcers.

### BIBLIOGRAPHIC SOURCE(S)

Registered Nurses Association of Ontario (RNAO). Assessment and management of venous leg ulcers. Toronto (ON): Registered Nurses Association of Ontario (RNAO); 2004 Mar. 112 p. [64 references]

Registered Nurses Association of Ontario (RNAO). Assessment and management of venous leg ulcers: guideline supplement. Toronto (ON): Registered Nurses Association of Ontario (RNAO); 2007 Mar. 21 p. [51 references]

### GUIDELINE STATUS

This is the current release of the guideline.

## COMPLETE SUMMARY CONTENT

SCOPE  
METHODOLOGY - including Rating Scheme and Cost Analysis  
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## SCOPE

### DISEASE/CONDITION(S)

Venous leg ulcers

### GUIDELINE CATEGORY

Evaluation  
Management  
Prevention  
Treatment

## **CLINICAL SPECIALTY**

Dermatology  
Family Practice  
Internal Medicine  
Nursing

## **INTENDED USERS**

Advanced Practice Nurses  
Nurses

## **GUIDELINE OBJECTIVE(S)**

- To improve outcomes for venous leg ulcer clients
- To assist practitioners to apply the best research evidence to clinical decisions
- To promote the responsible use of healthcare resources
- The March 2007 supplement should be used in conjunction with the original guideline as a tool to assist in decision making for individualized client care, as well as ensuring that appropriate structures and supports are in place to provide the best possible care.

## **TARGET POPULATION**

Adults with venous leg ulcers

## **INTERVENTIONS AND PRACTICES CONSIDERED**

### **Evaluation**

1. Comprehensive clinical history and physical examination (blood pressure measurement; weight; blood glucose level; Doppler measurement of Ankle Brachial Pressure Index [ABPI]; any other tests relevant to presenting patient's condition; ulcer history; ulcer treatment history; medical history; medication; bilateral limb assessment; pain; nutrition; allergies; psychosocial status; functional, cognitive, emotional status and ability for self-care)
2. Comprehensive assessment of ulcer (measurement of the wound and undermining; amount and quality of exudate; wound bed appearance; condition of the wound edge; infection; presence or absence of patient suffering; and re-evaluation)

### **Management/Prevention/Treatment**

1. Measures to prevent or manage pain associated with debridement
2. Development of treatment goals mutually agreed upon by the patient and healthcare professionals
3. Local wound bed preparation (debridement when appropriate, moisture balance and bacterial balance)
4. Ulcer cleansing
5. Avoidance of products that are known to cause skin sensitivities

6. Choosing dressings that optimizes the wound environment and patient tolerance
7. Referral of clients with suspected sensitivity reactions to a dermatologist for patch testing
8. Following patch testing, avoidance of identified allergens and seeking medical advice on treatment
9. Venous surgery followed by graduated compression hosiery as indicated
10. Assessment for signs and symptoms of infection
11. Management of wound infection with cleansing and debridement, and systemic antibiotics as appropriate
12. Use of topical antiseptics as appropriate
13. Graduated compression bandaging combined with exercise
14. Complementary therapies as indicated, such as electrical stimulation and therapeutic ultrasound
15. Assessment and re-evaluation as appropriate
16. Client education for measures to prevent recurrence after healing
17. Education, organization and policy recommendations

## **MAJOR OUTCOMES CONSIDERED**

- Healing rates
- Ulcer recurrence
- Quality of life

## **METHODOLOGY**

### **METHODS USED TO COLLECT/SELECT EVIDENCE**

Searches of Electronic Databases  
 Searches of Unpublished Data

### **DESCRIPTION OF METHODS USED TO COLLECT/SELECT THE EVIDENCE**

#### **March 2004 Guideline**

An initial database search for existing guidelines was conducted in early 2001 by a company that specializes in searches of the literature for health related organizations, researchers, and consultants. A subsequent search of the MEDLINE, CINAHL, and Embase databases for articles published from January 1, 1998, to February 28, 2001, was conducted using the following search terms and keywords: "leg ulcer," "leg ulcers," "venous leg ulcer(s)," "practice guidelines," "practice guideline," "clinical practice guideline," "clinical practice guidelines," "standards," "consensus statement(s)," "consensus," "evidence based guidelines," and "best practice guidelines." In addition, a search of the Cochrane Library database for systematic reviews was conducted using the above search terms.

A metacrawler search engine ([www.metacrawler.com](http://www.metacrawler.com)), plus other available information provided by the project team, was used to create a list of 42 Web sites known for publishing or storing clinical practice guidelines.

Panel members were asked to review personal archives to identify guidelines not previously found through the above search strategy. In a rare instance, a guideline was identified by panel members and not found through the database or internet search. These were guidelines that were developed by local groups and had not been published to date.

The search method described above revealed eleven guidelines, several systematic reviews, and numerous articles related to venous leg ulcer assessment and management. The final step in determining whether the clinical practice guideline would be critically appraised was to apply the following criteria:

- Guideline was in English.
- Guideline was dated no earlier than 1998, as significant changes in venous leg ulcer management occurred in that year.
- Guideline was strictly about the topic area.
- Guideline was evidence-based (e.g., contained references, description of evidence, sources of evidence).
- Guideline was available and accessible for retrieval.

### **March 2007 Supplement**

Members of the revision panel critically appraised guidelines, published since 2004, using the Appraisal of Guidelines for Research and Evaluation (AGREE) instrument.

## **NUMBER OF SOURCE DOCUMENTS**

### **March 2004 Guideline**

The guideline development panel, following the appraisal process, identified eight guidelines, and related updates, to adapt and modify recommendations.

### **March 2007 Supplement**

The literature search yielded 203 abstracts. Fifty-four studies met the inclusion criteria.

Members of the review panel critically appraised three international guidelines, published since 2004. This review resulted in one guideline and accompanying document being used as a supportive resource during the revision process of this guideline.

## **METHODS USED TO ASSESS THE QUALITY AND STRENGTH OF THE EVIDENCE**

Expert Consensus  
Weighting According to a Rating Scheme (Scheme Given)

## **RATING SCHEME FOR THE STRENGTH OF THE EVIDENCE**

### **Level of Evidence**

**Level A:** Evidence obtained from at least one randomized controlled trial or meta-analysis of randomized controlled trials

**Level B:** Evidence from well designed clinical studies but no randomized controlled trials

**Level C:** Evidence from expert committee reports or opinion and/or clinical experience or respected authorities. Indicates absence of directly applicable studies of good quality

## **METHODS USED TO ANALYZE THE EVIDENCE**

Review of Published Meta-Analyses  
Systematic Review  
Systematic Review with Evidence Tables

## **DESCRIPTION OF THE METHODS USED TO ANALYZE THE EVIDENCE**

Not stated

## **METHODS USED TO FORMULATE THE RECOMMENDATIONS**

Expert Consensus

## **DESCRIPTION OF METHODS USED TO FORMULATE THE RECOMMENDATIONS**

In February of 2001, a panel of nurses with expertise in the practice and research related to venous leg ulcers, from community and academic settings, was convened under the auspices of the Registered Nurses Association of Ontario (RNAO). At the onset the panel discussed and came to consensus on the scope of the best practice guideline.

A critique of systematic review articles and pertinent literature was conducted to update the existing guidelines. Through a process of evidence gathering, synthesis, and consensus, a draft set of recommendations was established.

## **RATING SCHEME FOR THE STRENGTH OF THE RECOMMENDATIONS**

Not applicable

## **COST ANALYSIS**

### **March 2004 Guideline**

A formal cost analysis was not performed and published cost analyses were not reviewed.

### **March 2007 Supplement**

The revision panel reviewed cost analyses.

## **METHOD OF GUIDELINE VALIDATION**

Clinical Validation-Pilot Testing  
External Peer Review  
Internal Peer Review

## **DESCRIPTION OF METHOD OF GUIDELINE VALIDATION**

This draft document was submitted to a set of external stakeholders for review and feedback. Stakeholders represented various healthcare professional groups, clients and families, as well as professional associations. External stakeholders were provided with specific questions for comment, as well as the opportunity to give overall feedback and general impressions. The results were compiled and reviewed by the development panel – discussion and consensus resulted in minor revisions to the draft document prior to pilot testing.

A pilot implementation practice setting was identified through a "Request for Proposal" (RFP) process. Practice settings in Ontario were asked to submit a proposal if they were interested in pilot testing the recommendations of the guideline. These proposals were then subjected to a review process, from which a successful practice setting was identified. A nine-month pilot implementation was undertaken to test and evaluate the recommendations. The evaluation took place in a chronic care hospital and community care organization in Southern Ontario. The development panel reconvened after the pilot implementation in order to review the experiences of the pilot site, consider the evaluation results, and review any new literature published since the initial development phase. All these sources of information were used to update/revise the document prior to publication.

## **RECOMMENDATIONS**

### **MAJOR RECOMMENDATIONS**

***Note from the National Guideline Clearinghouse (NGC):*** *In March 2007, the Registered Nurses Association of Ontario amended the current practice recommendations for this topic. Through the review process, many recommendations were re-worded, removed or combined to reflect current knowledge and to enhance the clarity of the document. Two new recommendations have also been added. Changes have been noted below as "changed," "unchanged" or "new."*

The levels of evidence supporting each recommendation (Level A-C) are defined at the end of the "Major Recommendations" field.

### **Practice Recommendations**

#### ***Comprehensive Assessment***

#### **Recommendation 1 (Unchanged)**

Assessment and clinical investigations should be undertaken by healthcare professional(s) trained and experienced in leg ulcer management. (*Level of Evidence = C*)

### **Recommendation 2 (Changed March 2007)**

A comprehensive clinical history and physical examination includes:

- Blood pressure measurement
- Weight
- Blood glucose level
- Doppler measurement of Ankle Brachial Pressure Index (ABPI)
- Any other tests relevant to presenting patient's condition
- Ulcer history
- Ulcer treatment history
- Medical history
- Medication
- Bilateral limb assessment
- Pain
- Nutrition
- Allergies
- Psychosocial status (including quality of life)
- Functional, cognitive, emotional status and ability for self-care

The above should be documented in a structured format for a client presenting with either their first or recurrent leg ulcer and should be ongoing thereafter.

(*Level of Evidence = C*)

### **Recommendation 3 (Changed March 2007)**

A comprehensive assessment of an ulcer should include:

- Measurement of the wound and undermining
- Amount and quality of exudate
- Wound bed appearance
- Condition of the wound edge
- Infection
- Presence or absence of patient suffering
- Re-evaluation

(*Level of Evidence C*)

Measure the surface areas of ulcers, at regular intervals, to monitor progress. Maximum length and width, or tracings onto a transparency are useful methods. (*Level of Evidence B*)

### **Recommendation 4 (Unchanged)**

Regular ulcer assessment is essential to monitor treatment effectiveness and healing goals. (*Level of Evidence = C*)

## ***Diagnostic Evaluation***

### **Recommendation 5 (Changed March 2007)**

An Ankle Brachial Pressure Index (ABPI) measurement should be performed by a trained practitioner to rule out the presence of peripheral arterial disease, particularly prior to the application of compression therapy. (*Level of Evidence = B*)

### **Recommendation 6 (Changed March 2007)**

An Ankle Brachial Pressure Index (ABPI)  $>1.2$  and  $<0.8$  warrants referral for further medical assessment. (*Level of Evidence = C*)

### **Recommendation 7 (Changed March 2007)**

Prior to debridement, vascular assessment, such as Ankle Brachial Pressure Index (ABPI), is recommended for ulcers in lower extremities to rule out vascular compromise and ensure healability. (*Level of Evidence = C*)

## ***Pain***

### **Recommendation 8 (Unchanged)**

Pain may be a feature of both venous and arterial disease, and should be addressed. (*Level of Evidence = B*)

### **Recommendation 9 (Unchanged)**

Prevent or manage pain associated with debridement. Consult with a physician and pharmacist as needed. (*Level of Evidence = C*)

## ***Venous Ulcer Care***

### **Recommendation 10 (New March 2007)**

Develop treatment goals mutually agreed upon by the patient and healthcare professionals, based on clinical findings, current evidence, expert opinion and patient preference. (*Level of Evidence = C*)

### **Recommendation 11 (New March 2007)**

Local wound bed preparation includes debridement when appropriate, moisture balance and bacterial balance. (*Level of Evidence = C*)

### **Recommendation 12 (Unchanged)**

Cleansing of the ulcer should be kept simple; warm tap water or saline is usually sufficient. (*Level of Evidence = B*)

**Recommendation 13 (Changed March 2007)**

First-line and uncomplicated dressings must be simple, low adherent, acceptable to the client and should be cost-effective. (*Level of Evidence = A*)

**Recommendation 14 (Changed March 2007)**

Avoid products that are known to cause skin sensitivity, such as those containing lanolin, phenol alcohol, or some topical antibiotic and antibacterial preparations. (*Level of Evidence = C*)

**Recommendation 15 (Changed March 2007)**

Choose a dressing that optimizes the wound environment and patient tolerance. (*Level of Evidence = C*)

**Recommendation 16 (Unchanged)**

No specific dressing has been demonstrated to encourage ulcer healing. (*Level of Evidence = A*)

**Recommendation 17 (Unchanged)**

In contrast to drying out, moist wound conditions allow optimal cell migration, proliferation, differentiation and neovascularization. (*Level of Evidence = A*)

**Recommendation 18 (Unchanged)**

Refer clients with suspected sensitivity reactions to a dermatologist for patch testing. Following patch testing, identified allergens must be avoided, and medical advice on treatment should be sought. (*Level of Evidence = B*)

**Recommendation 19 (Changed March 2007)**

Venous surgery followed by graduated compression hosiery is an option for consideration in clients with superficial venous insufficiency. (*Level of Evidence = A*)

***Infection***

**Recommendation 20 (Changed March 2007)**

Assess for signs and symptoms of infection. (*Level of Evidence = A*)

**Recommendation 21 (Changed March 2007)**

Manage wound infection with cleansing and debridement, as appropriate. Where there is evidence of cellulitis, treatment of infection involves systemic antibiotics. (*Level of Evidence = B*)

### **Recommendation 22 (Changed March 2007)**

The use of topical antiseptics to reduce bacteria in wound tissue should be reserved for situations in which concern for bacterial load is higher than that of healability. *(Level of Evidence = C)*

### **Compression**

### **Recommendation 23 (Changed March 2007)**

The treatment of choice for venous ulceration uncomplicated by other factors is graduated compression bandaging, properly applied and combined with exercise. *(Level of Evidence = A)*

- In venous ulceration, high compression achieves better healing than low compression. *(Level of Evidence = A)*
- Compression bandages should only be applied by a suitably trained and experienced practitioner. *(Level of Evidence = B)*
- The concepts, practice, and hazards of graduated compression should be fully understood by those prescribing and fitting compression stockings. *(Level of Evidence = B)*
- Ankle circumference should be measured at a distance of 2.5 cm (one inch) above the medial malleolus. *(Level of Evidence = C)*

### **Recommendation 24 (Changed March 2007)**

External compression applied using various forms of pneumatic compression pumps can be indicated for individuals with chronic venous insufficiency. *(Level of Evidence = A)*

### **Recommendation 25 (Changed March 2007)**

The client should be prescribed regular vascular exercise by means of intensive controlled walking and exercises to improve the function of the ankle joint and calf muscle pump. *(Level of Evidence = A)*

### **Complementary Therapies**

### **Recommendation 26 (Unchanged)**

Consider electrical stimulation in the treatment of venous leg ulcers. *(Level of Evidence = B)*

### **Recommendation 27 (Unchanged)**

Therapeutic ultrasound may be used to reduce the size of chronic venous ulcers. *(Level of Evidence = A)*

### **Reassessment**

### **Recommendation 28 (Changed March 2007)**

If signs of healing are not evident, a comprehensive assessment and re-evaluation of the treatment plan should be carried out at three month intervals, or sooner if clinical condition deteriorates. (*Level of Evidence = C*)

### **Recommendation 29 (Unchanged)**

For resolving and healing venous leg ulcers, routine assessment at six-month intervals should include:

- Physical assessment
- Ankle Brachial Pressure Index (ABPI)
- Replacement of compression stockings
- Reinforcement of teaching

(*Level of Evidence = C*)

### ***Client Education for Secondary Prevention***

The section heading was modified to emphasize the importance of client education as a valuable means to promoting effective preventative measures.

### **Recommendation 30 (Changed March 2007) (*Level of Evidence = C*)**

Inform the client of measures to prevent recurrence after healing:

- Daily wear of compression stockings, cared for as per manufacturer's instructions and replaced at a minimum every six months
- Discouragement of self-treatment with over-the-counter preparations
- Avoidance of accidents or trauma to legs
- Rest periods throughout the day with elevation of affected limb above level of heart
- Early referral at first sign of skin breakdown or trauma to limb
- Need for exercise and ankle-joint mobility
- Appropriate skin care avoiding sensitizing products
- Compression therapy for life with reassessment based on symptoms

### **Education Recommendations**

#### **Recommendation 31 (Unchanged)**

Guidelines are more likely to be effective if they take into account local circumstances and are disseminated by an ongoing education and training program. (*Level of Evidence = C*)

#### **Recommendation 32 (Changed March 2007)**

Using principles of adult learning, present information at an appropriate level for the target audience, including healthcare providers, clients, family members and caregivers. (*Level of Evidence = C*)

### **Recommendation 33 (Changed March 2007)**

All healthcare professionals who manage lower limb ulcers should be trained in leg ulcer assessment and management. (*Level of Evidence = C*)

### **Recommendation 34 (Unchanged)**

Design, develop, and implement educational programs that reflect a continuum of care. The program should begin with a structured, comprehensive, and organized approach to prevention and should culminate in effective treatment protocols that promote healing as well as prevent recurrence. (*Level of Evidence = C*)

### **Recommendation 35 (Changed March 2007) (*Level of Evidence = C*)**

Education programs for healthcare professionals who manage lower limb ulcers should include:

- Pathophysiology of leg ulceration
- Leg ulcer assessment
- Need for Doppler ultrasound to measure Ankle Brachial Pressure Index (ABPI)
- Normal and abnormal wound healing
- Compression therapy theory, management, and application
- Dressing selection
- Principles of debridement
- Principles of cleansing and infection control
- Skin care of the lower leg
- Peri-wound skin care and management
- Psychological impact of venous stasis disease
- Quality of life
- Pain management
- Teaching and support for care provider
- Health education
- Preventing recurrence
- Principles of nutritional support with regard to tissue integrity
- Mechanisms for accurate documentation and monitoring of pertinent data, including treatment interventions and healing progress
- Criteria for referral for specialized assessment

### **Recommendation 36 (Changed March 2007)**

Healthcare professionals with recognized training in leg ulcer care should mentor and transfer their knowledge and skills to local healthcare teams. (*Level of Evidence = C*)

### **Recommendation 37 (Unchanged)**

The knowledge and understanding of the healthcare professional is a major factor in adherence to treatment regimens. (*Level of Evidence = C*)

### **Organization and Policy Recommendations**

### **Recommendation 38 (Unchanged)**

Successful implementation of a venous ulcer treatment policy/strategy requires:

- Dedicated funding
- Integration of healthcare services
- Support from all levels of government
- Management support
- Human resources
- Financial resources
- Functional space
- Commitment
- Collection of baseline information about vulnerable populations
- Resources and existing knowledge
- Interpretation of above data and identification of organizational problems

*(Level of Evidence = C)*

### **Recommendation 39 (Unchanged)**

Nursing best practice guidelines can be successfully implemented only where there are adequate planning, resources, organizational and administrative support, as well as appropriate facilitation. Organizations may wish to develop a plan for implementation that includes:

- An assessment of organizational readiness and barriers to education.
- Involvement of all members (whether in a direct or indirect supportive function) who will contribute to the implementation process.
- Dedication of a qualified individual to provide the support needed for the education and implementation process.
- Ongoing opportunities for discussion and education to reinforce the importance of best practices.
- Opportunities for reflection on personal and organizational experience in implementing guidelines.

Refer to the "Description of the Implementation Strategy" field for more information.

*(Level of Evidence = C)*

#### **Definitions:**

**Level A:** Evidence obtained from at least one randomized controlled trial or meta-analysis of randomized controlled trials

**Level B:** Evidence from well designed clinical studies but no randomized controlled trials

**Level C:** Evidence from expert committee reports or opinion and/or clinical experience or respected authorities. Indicates absence of directly applicable studies of good quality

## CLINICAL ALGORITHM(S)

None provided

## EVIDENCE SUPPORTING THE RECOMMENDATIONS

### TYPE OF EVIDENCE SUPPORTING THE RECOMMENDATIONS

The type of evidence is provided for each recommendation (see "Major Recommendations").

## BENEFITS/HARMS OF IMPLEMENTING THE GUIDELINE RECOMMENDATIONS

### POTENTIAL BENEFITS

- Appropriate assessment and management of venous leg ulcers
- In leg ulcer care, using treatments with known efficacy leads to improvements in both healing rates and quality of life for the leg ulcer sufferer.

### POTENTIAL HARMS

Not stated

## CONTRAINDICATIONS

### CONTRAINDICATIONS

Arterial insufficiency is a contraindication to the use of high compression.

## QUALIFYING STATEMENTS

### QUALIFYING STATEMENTS

- These best practice guidelines are related only to nursing practice and not intended to take into account fiscal efficiencies. These guidelines are not binding for nurses, and their use should be flexible to accommodate client/family wishes and local circumstances. They neither constitute a liability nor a discharge from liability. While every effort has been made to ensure the accuracy of the contents at the time of publication, neither the authors nor Registered Nurses Association of Ontario (RNAO) give any guarantee as to the accuracy of the information contained in them, nor accept any liability, with respect to loss, damage, injury, or expense arising from any such errors or omissions in the contents of this work. Any reference throughout the document to specific pharmaceutical products as examples does not imply endorsement of any of these products.
- The March 2007 supplement to the nursing best practice guideline *Assessment and Management of Venous Leg Ulcers* is the result of a three year scheduled revision of the guideline. Additional material has been

provided in an attempt to provide the reader with current evidence to support practice. Similar to the original guideline publication, this document needs to be reviewed and applied, based on the specific needs of the organization or practice setting/environment, as well as the needs and wishes of the client. This supplement should be used in conjunction with the guideline as a tool to assist in decision making for individualized client care, as well as ensuring that appropriate structures and supports are in place to provide the best possible care.

- There are several types of leg ulcers whose treatment is beyond the scope of this guideline. The recommendations presented here were developed specifically for the management of leg ulcers related to venous disease. Appendix M of the guideline supplement (see the "Guideline Availability" field in this summary) provides a description of physical findings that would indicate venous disease versus arterial disease.

## IMPLEMENTATION OF THE GUIDELINE

### DESCRIPTION OF IMPLEMENTATION STRATEGY

#### March 2004 Guideline

Best practice guidelines can only be successfully implemented if there are adequate planning, resources, organizational and administrative support, as well as appropriate facilitation. Registered Nurses Association of Ontario (RNAO), through a panel of nurses, researchers, and administrators has developed a *Toolkit: Implementation of Clinical Practice Guidelines* based on available evidence, theoretical perspectives and consensus. The *Toolkit* is recommended for guiding the implementation of any clinical practice guideline in a healthcare organization.

The *Toolkit* provides step-by-step directions to individuals and groups involved in planning, coordinating, and facilitating guideline implementation. Specifically, the *Toolkit* addresses the following key steps in implementing a guideline:

1. Identifying a well-developed, evidence-based clinical practice guideline
2. Identification, assessment and engagement of stakeholders
3. Assessment of environmental readiness for guideline implementation
4. Identifying and planning evidence-based implementation strategies
5. Planning and implementing evaluation
6. Identifying and securing required resources for implementation

Implementing practice guidelines that result in successful practice changes and positive clinical impact is a complex undertaking. The *Toolkit* is one key resource for managing this process.

#### March 2007 Supplement

The Registered Nurses' Association of Ontario and the guideline panel have compiled a list of implementation strategies to assist health care organizations or health care disciplines who are interested in implementing this guideline. A summary of these strategies follows:

- Have at least one dedicated person such as an advanced practice nurse or a clinical resource nurse who will provide support, clinical expertise and leadership. The individual should have good interpersonal, facilitation and project management skills.
- Conduct an organizational needs assessment related to the care of adults with leg ulcers to identify current knowledge base and further educational requirements.
- Create a vision to help direct the change effort and develop strategies for achieving and sustaining the vision.
- Establish a steering committee comprised of key stakeholders and interdisciplinary members committed to leading the change initiative. Identify short term and long-term goals.
- Identify and support designated best practice champions on each unit to promote and support implementation. Celebrate milestones and achievements, acknowledging work well done.
- Provide organizational support such as having the structures in place to facilitate best practices in leg ulcer care. For example, having an organizational philosophy that reflects the value of best practices through policies and procedures. Develop new assessment and documentation tools.

## **IMPLEMENTATION TOOLS**

Foreign Language Translations  
 Patient Resources  
 Staff Training/Competency Material  
 Tool Kits

For information about [availability](#), see the "Availability of Companion Documents" and "Patient Resources" fields below.

## **INSTITUTE OF MEDICINE (IOM) NATIONAL HEALTHCARE QUALITY REPORT CATEGORIES**

### **IOM CARE NEED**

Getting Better  
 Living with Illness  
 Staying Healthy

### **IOM DOMAIN**

Effectiveness  
 Patient-centeredness

## **IDENTIFYING INFORMATION AND AVAILABILITY**

### **BIBLIOGRAPHIC SOURCE(S)**

Registered Nurses Association of Ontario (RNAO). Assessment and management of venous leg ulcers. Toronto (ON): Registered Nurses Association of Ontario (RNAO); 2004 Mar. 112 p. [64 references]

Registered Nurses Association of Ontario (RNAO). Assessment and management of venous leg ulcers: guideline supplement. Toronto (ON): Registered Nurses Association of Ontario (RNAO); 2007 Mar. 21 p. [51 references]

#### **ADAPTATION**

Not applicable: The guideline was not adapted from another source.

#### **DATE RELEASED**

2004 Mar (addendum released 2007 Mar)

#### **GUIDELINE DEVELOPER(S)**

Registered Nurses Association of Ontario - Professional Association

#### **SOURCE(S) OF FUNDING**

Funding was provided by the Ontario Ministry of Health and Long Term Care.

#### **GUIDELINE COMMITTEE**

Not stated

#### **COMPOSITION OF GROUP THAT AUTHORED THE GUIDELINE**

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**FINANCIAL DISCLOSURES/CONFLICTS OF INTEREST**

The Registered Nurses Association of Ontario (RNAO) convened a panel to develop this guideline, conducting its work independent of any bias or influence from the Ministry of Health and Long-Term Care.

**GUIDELINE STATUS**

This is the current release of the guideline.

## **GUIDELINE AVAILABILITY**

### **March 2004 Guideline**

Electronic copies: Available in Portable Document Format (PDF) in English and French from the [Registered Nurses Association of Ontario \(RNAO\) Web site](#).

### **March 2007 Supplement**

Electronic copies: Available in Portable Document Format (PDF) from the [RNAO Web site](#).

Print copies: Available from the Registered Nurses Association of Ontario (RNAO), Nursing Best Practice Guidelines Program, 158 Pearl Street, Toronto, Ontario M5H 1L3.

## **AVAILABILITY OF COMPANION DOCUMENTS**

The following are available:

- Toolkit: implementation of clinical practice guidelines. Toronto (ON): Registered Nurses Association of Ontario (RNAO); 2002 Mar. 88 p. Available in Portable Document Format (PDF) in English and French from the [Registered Nurses Association of Ontario \(RNAO\) Web site](#).
- Learning package: assessment and management of venous leg ulcers. Toronto (ON): Registered Nurses Association of Ontario (RNAO); 2006 Jun. 25 p. Available in Portable Document Format (PDF) from the [Registered Nurses Association of Ontario \(RNAO\) Web site](#).

Print copies: Available from the Registered Nurses Association of Ontario (RNAO), Nursing Best Practice Guidelines Project, 158 Pearl Street, Toronto, Ontario M5H 1L3.

## **PATIENT RESOURCES**

The following is available:

- Health education fact sheet. Taking care of your legs. Toronto (ON): Registered Nurses Association of Ontario (RNAO); 2004 Mar. 2 p.

Electronic copies: Available in Portable Document Format (PDF) in English and French from the [Registered Nurses Association of Ontario \(RNAO\) Web site](#).

Print copies: Available from the Registered Nurses Association of Ontario (RNAO), Nursing Best Practice Guidelines Program, 158 Pearl Street, Toronto, Ontario M5H 1L3.

Please note: This patient information is intended to provide health professionals with information to share with their patients to help them better understand their health and their diagnosed disorders. By providing access to this patient information, it is not the intention of NGC to provide specific medical advice for particular patients. Rather we urge patients and their representatives to review this material and then to consult with a licensed health professional for evaluation of treatment options suitable for

them as well as for diagnosis and answers to their personal medical questions. This patient information has been derived and prepared from a guideline for health care professionals included on NGC by the authors or publishers of that original guideline. The patient information is not reviewed by NGC to establish whether or not it accurately reflects the original guideline's content.

## **NGC STATUS**

This NGC summary was completed by ECRI on September 16, 2004. The information was verified by the guideline developer on October 14, 2004. This NGC summary was updated by ECRI Institute on January 3, 2008. The updated information was verified by the guideline developer on March 4, 2008.

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