**Diabetic Foot Ulcer Treatment Algorithm**

### Complete Holistic Assessment
- Medical/Surgical History & Co-morbidity Management
- Physical Examination
- Lower Leg (LLA) including monofilament test
- Perform Arterial Brachial Pressure Index (ABPI) and Toe Brachial Pressure Index (TBPI)
- Diabetic Management (Glycemic and Lipid Control & Nutrition)

### Determine the Cause – Risk Factors

#### Physiological

<table>
<thead>
<tr>
<th>Diabetes</th>
<th>Vascular Flow</th>
<th>Autoimmune Disorders</th>
<th>Wound History</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diabetes and sub-optimal glycemic control</td>
<td>Hypertension</td>
<td>Collagen vascular diseases</td>
<td>History of foot infections or osteomyelitis</td>
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<tr>
<td>Neuropathic changes with lack of protective sensation</td>
<td>Heart disease</td>
<td>Immunosuppressant medications</td>
<td>Presence of toe infections (fungal or bacterial), callous and/or corns</td>
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<tr>
<td></td>
<td>Hyperlipidemia</td>
<td>Gout</td>
<td>Previous ulceration</td>
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<td></td>
<td>History of deep vein thrombosis</td>
<td>Vasculitis</td>
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<td>Peripheral artery disease</td>
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<tr>
<td></td>
<td>Venous Insufficiency</td>
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</tbody>
</table>

#### Physical Limitations

- Obesity
- Foot deformity
- Decreased level of activity
- Visual disturbances
- Amputation
- Trauma

#### Socioeconomic/Self-Management

- Gait
- Nutritional deficits
- Limited joint mobility
- Congenital abnormalities
- Osteoporosis
- Smoking
- Inadequate foot wear/offloading devices
- Lack/inability to afford diabetic supplies, foot care and foot wear
- Lack of awareness for self-care
- Inadequate hygiene
- Unsafe home environment
- Alcohol/drug abuse
- Decreased Cognitive Ability
- Depression
- Financial insecurity
- Decreased level of activity

### Confirm Wound Etiology and Pathway

- Results of LLA, Monofilament Testing and ABPI/TBPI
- Results of wound assessment
- Diagnostic (Vascular Segmental Studies) & Laboratory results

### Treat the Cause

- Vascular Flow (Venous and Arterial insufficiency)
- Wound Infection/Osteomyelitis
- Pressure Distribution & Awareness of Neuropathic Changes
- Diet, Glycemic and Lipid Control

### Optimize Medical Therapy with Patient

- Smoking and nicotine cessation
- Offloading (Total Contact Cast or Prefabricated Removable Walking Casts rendered irremovable are Gold Standard)
- Regular, professional foot care by qualified foot care practitioner when indicated
- Regular professional debridement of callous/corns
- Medication administration for control of hyperlipidemia, hypertension, blood sugar, systemic antibiotic for infection and pain management
- Avoid extremes (hot/cold, tight/loose)
- Exercise 30 minutes/3 times per week
- Address adequate diabetic diet/supplementation and hydration
- Wound care as per best practice

### Perfusion Strategies for Impaired Circulation

- Endovascular Perfusion
- Angioplasty
- Catheter-directed thrombolytic therapy
- Surgical Perfusion
- Endarterectomy
- Arterial Bypass

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This algorithm is provided as an information resource for health care professionals. It is intended to compliment, but not replace clinical judgment. Reference website can be found at www.woundcare.ca