E.5. **CRITERIA FOR ADJUNCTIVE THERAPIES FOR NON-HEALING ULCERS**

5.1 **Purpose and Instructions for Use**

The “Criteria for Adjunctive Therapies for Non-Healing Ulcers” is an evidence-based resource that summarizes the types of additional interventions that may be used to stimulate and/or facilitate wound healing.

This resource may be referred to at the time of the Initial Wound Assessment Screen (B.1) if an existing wound is present and/or when the Lower Leg Assessment (B.2) is completed and/or any time throughout and individual’s care, to assist in determining if a wound is healing at the expected rate. If the rate of healing lags behind the criterion timeline the appropriate corresponding adjunctive therapy is highlighted for initiation.

**Adjunctive Therapies**

Adjunctive therapy refers to additional treatment used together with the primary treatment to achieve the outcome of the primary treatment.

There are many types of adjunctive therapies for wound management. The ones contained in this resource include only those that have been verified by rigorous research standards and are included in the RNAO/CAWC best practice guidelines. The evidence supporting each adjunctive therapy is referenced through the document and definitions of the “levels of evidence” are provided in Table 1 below.

It is important to note that all adjunctive therapies should only be administered by trained qualified health care professionals.

**Definitions of Adjunctive Therapies**

*Electrical Stimulation Therapy (EST)* refers to the application of a low level electrical current to the base of a wound or peri-wound using conductive electrodes to induce cellular activity to facilitate wound healing.

*Hyperbaric Oxygen Therapy (HBOT)* refers to the administration of a higher dose of oxygenation delivered at increased atmospheric pressures while an individual is enclosed in a chamber to increase tissue oxygenation and facilitate wound healing.

*Intermittent Pneumatic Compression (IPC)* is a useful adjunct to standard compression where Pressures as high as 180 mm Hg can be delivered in short cycles. Intermittent pneumatic compression may be more effective than bandaging alone, particularly for individuals with reduced mobility, or impaired calf muscle pump. (Comerota et al. 2008). The Cochrane review made the following recommendations:

- It is not clear whether ICP increases healing when added to treatment with bandages, or if it can be used instead of compression bandages.
South West Regional Wound Care Toolkit

- Rapid IPC was better than slow IPC in one trial.
- Further trials are needed (Nelson et al. 2008)

*Therapeutic Ultrasound (TU)* refers to the therapeutic application of ultrasound waves to the base of a wound or peri-wound to induce cellular activity to facilitate wound healing.

The following adjunctive therapy is not mentioned in the RNAO OR CAWC Best Practice Guidelines or Recommendations, but has some recent research to support its use.

*Topical Wound Oxygen Therapy (TWOT)* refers to the administration of pressurized oxygen delivered topically to the wound bed to increase tissue oxygenation and facilitate wound healing (Blackman et al. 2010)

**Instructions for use of the tool:**

1. Select type of wound being treated as follows:
   - Diabetic Foot Ulcer(s)
   - Venous Leg Ulcer(s)
   - Arterial Ulcer(s)
   - Pressure Ulcer(s)

2. Review the criteria for that wound type that describes the expected rate of healing. If the healing rate is not occurring within the recommended timelines, read further to determine which health professional to refer to commence adjunctive therapies.

3. Additionally for completeness, if healing is not occurring at the expected rate, refer to section F.6, “Criteria for Interprofessional Referrals” to determine if other qualified health care professionals should be involved to promote wound healing. Please see section 14a for further details.

**Table 1. Research Levels of Evidence**

<table>
<thead>
<tr>
<th>Previous RNAO Levels of Evidence</th>
<th>New RNAO Levels of Evidence</th>
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</thead>
<tbody>
<tr>
<td>Level</td>
<td>Definition</td>
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<tr>
<td>A</td>
<td>Evidence from at least one RCT* or meta-analysis of RCTs*.</td>
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<td></td>
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<tr>
<td>B</td>
<td>Evidence from well-designed clinical studies but no RCTs*.</td>
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<tr>
<td>C</td>
<td>Evidence from expert committee reports or opinion and/or clinical experience of respected authorities.</td>
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Literature References:


