

## Evidence to Decision Frameworks: Wound Dressings

**Clinical question** What wound dressings are effective for supporting healing of partial thickness pressure injuries?

**Good practice statement** 14.1

**Select the most appropriate wound dressing based on clinical assessment and characteristics of the wound, and the goals and self-care abilities of the individual and/or their informal caregiver. Clinical assessment includes:**

- Diameter, shape and depth of the pressure injury
- Need to address bacterial bioburden
- Ability to keep the wound bed moist
- Nature and volume of wound exudate
- Condition of the tissue in the wound bed
- Condition of the peri-wound skin
- Presence of tunneling and/or undermining
- Pain

**Background:** When the pressure ulcer is clean and granulating, maintenance of a moist wound bed is an important factor in promoting healing or closure. A dressing that remains in contact with the wound bed or a skin barrier product keeps the periwound dry and prevents maceration. As the ulcer either heals or deteriorates over time, the type of wound dressing most appropriate for promotion of healing may change.

### SUPPORTING EVIDENCE, WHEN AVAILABLE

**Evidence to support opinion**

**Justification**

Different wound dressings have differing methods of action. Selecting the right wound dressing for a specific pressure injury requires a comprehensive evaluation of the pressure injury, the individual and the environment each time the wound dressing is changed. There is no wound dressing that is superior to others.

**Clinical question** Which wound dressings are the most cost-effective for healing pressure injuries?

**Good Practice Statement**  
14.2

**Evaluate the cost effectiveness of wound dressings at a local level, with consideration to direct and indirect costs to the health care system and to the individual with a pressure injury. Advanced wound dressings that promote moist wound healing are more likely to be cost-effective due to faster healing times and less frequent dressing changes.**

**Background:** Wound dressings are a significant burden on the health care system and on individuals with pressure injuries.

#### SUPPORTING EVIDENCE, WHEN AVAILABLE

**Evidence to support the opinion (when available)**

##### **Direct cost of performing a wound dressing**

- In a teaching hospital in USA in 2016, the following costs of performing a wound dressing were calculated: Category/Stage I pressure injury —\$19.18±11.80 USD, Category/Stage II pressure injury —\$6.50±7.68 USD, Category/Stage III pressure injury — \$12.34±11.24 USD, Category/Stage IV pressure injury — \$ 5.84±7.02 USD, Uncategorized pressure injury – \$ 9.52±8.60 USD and suspected deep tissue injury— \$3.76±2.46 USD.<sup>1</sup> (*Low quality*)
- In an intensive care unit (ICU) in Brazil in 2015, mean cost of performing a wound dressing per pressure injury was calculated as \$11.9±7.4 USD (range 5.2 to 27.7).<sup>2</sup> (*Moderate quality*)
- In an outpatient clinic in Thailand in 2009-2010, mean costs of caring for a Category/Stage III or IV pressure injury were calculated as: dressing unit cost (staffing and silver dressing products)—\$8.06 USD and debridement—\$16.13 USD.<sup>3</sup> (*Moderate quality*)
- In a home care setting in Greece in 2016, total average treatment cost (including labor and equipment) until pressure injury healing was achieved was lower for moist wound dressings compared with gauze dressings ( €1,351 vs €3,888).<sup>4</sup> (*Low quality*)
- In an outpatient clinic in Thailand in 2009-2010, treatment with silver zinc sulfadiazine cream was significantly more expensive than with an alginate silver dressing \$467.74 USD versus \$377.17 USD,  $p < 0.001$ .<sup>3</sup> (*Moderate quality*)

##### **Factors that influence cost: wound healing time**

- For Category/Stage III or IV pressure injuries managed in a home care setting, moist wound healing dressings (foam dressings, silver foam dressing, silver sulfadiazine dressing, ibuprofen-releasing foam dressings) were associated with significantly faster wound healing compared to a gauze dressing (85.56±52.1 days versus 121.4±52.2 days,  $p = 0.0001$ ).<sup>4</sup> (*Low quality*)

##### **Factors that influence cost: wound dressing change frequency**

- For Category/Stage III or IV pressure injuries, moist wound healing dressings (foam dressings, silver foam dressing, silver sulfadiazine dressing, ibuprofen-releasing foam dressings) required significantly fewer wound dressing changes compared to gauze dressing (49.5±29.6 vs 222.6±101.9,  $p < 0.0001$ ).<sup>4</sup> (*Low quality*)

#### **Justification**

Evidence of cost effectiveness of wound dressing for healing pressure injuries is reported in low to moderate quality cost analyses and/or low quality clinical studies.<sup>1-4</sup> The evidence suggests that moist wound dressings are associated with faster healing times and lower costs than gauze dressings.<sup>4</sup> Lower costs relate to less frequent dressing changes and faster healing rates.<sup>4</sup> However, there were inconsistent findings regarding direct costs related to the severity of pressure injury,<sup>1</sup> and costs may have large variations between geographic locations. To meaningfully inform local clinical practice and choice of individuals, comparative costs should accurately reflect the local setting.<sup>5</sup>

**Clinical question**

Which wound dressings are effective for supporting healing of partial thickness pressure injuries?

**Recommendation 14.3**

**Use hydrocolloid dressings for non-infected Category/Stage II pressure injuries.**

**Option:** Applying a hydrocolloid dressing

**Comparison:** Applying a different type of wound dressing, or comparisons between different hydrocolloid dressings

**Background:** Hydrocolloids are absorbent dressings containing gel forming agents that are held within an adhesive compound laminated in place on a foam or film. Hydrocolloids are either fully occlusive or semi-permeable and some includes features to promote adherence and reduce edge roll.<sup>6</sup>

| CRITERIA  | JUDGEMENTS   | RESEARCH EVIDENCE   | ADDITIONAL CONSIDERATIONS |
|---|--|---|---------------------------|
| <p><b>What is the overall certainty of the evidence of effectiveness?</b></p>               | <p>No included studies <input type="checkbox"/>    Very low <input type="checkbox"/>    Low <input checked="" type="checkbox"/>    Moderate <input type="checkbox"/>    High <input type="checkbox"/></p>  | <p><b>Evidence for complete wound healing</b></p> <ul style="list-style-type: none"> <li>In older adults (n=72) who wore a hydrocolloid dressing for a maximum of 56 days, 59.5% of superficial pressure injuries reached completed closure. This was not significantly different to a transparent, absorbent acrylic dressing (60%, p=0.963).<sup>6</sup> (Level 1, low quality)</li> <li>In older adults (n=65) primarily with Category/Stage II pressure injuries, treatment with a hydrocolloid dressing for eight weeks led to 50% of pressure injuries being healed. This was not significantly different to topical collagen (51%, p=0.893).<sup>7</sup> (Level 1, low quality)</li> <li>In older adults (n=61) with Category/Stage II (79%) or III (21%) pressure injuries, fewer pressure injuries healed when using a hydrocolloid dressing compared to a polyurethane foam dressing (16% versus 24%, significance not reported).<sup>8</sup> (Level 1, low quality)</li> </ul> <p><b>Evidence for other measures of wound healing</b></p> <ul style="list-style-type: none"> <li>In older adults (n=72) using wound dressings for a maximum of eight weeks, mean linear healing rate with a hydrocolloid dressing was 0.12±0.136cm/week. This was not significantly different from a transparent, absorbent acrylic dressing 0.10±0.205cm/week, p=0.6520).<sup>6</sup> (Level 1, low quality)</li> <li>In older adults (n=65) who wore a hydrocolloid dressing for eight weeks, healing rate was 6±16mm<sup>2</sup>/day for surface area, and 3±4mm for linear healing rate of wound edge. This was not significantly different to topical collagen (6±19mm<sup>2</sup>/day, p=0.942), and 3±5mm, p=0.757).<sup>7</sup> (Level 1, high quality)</li> </ul> <p><b>Potential adverse effects</b></p> <ul style="list-style-type: none"> <li>In older adults with pressure injuries (n=72), individuals receiving a hydrocolloid dressing with a low friction nylon outer layer were more likely to experience peri-skin erythema than individuals receiving a ceramide dressing (16.67% vs 4.17%).<sup>9</sup> (Level 2, low quality)</li> </ul> <p><b>Strength of Evidence: B1—Level 1 studies of moderate or low quality providing direct evidence</b></p> |                           |
|   | <p>Important uncertainty or variability <input type="checkbox"/>    Possibly important uncertainty or variability <input checked="" type="checkbox"/>    Probably no important uncertainty or variability <input type="checkbox"/>    No important uncertainty or variability <input type="checkbox"/>    No known undesirable outcomes <input type="checkbox"/></p> |   |                           |
| <p><b>Is there important uncertainty about how much people value the main outcomes?</b></p> | <p>Unclear <input checked="" type="checkbox"/>    Not substantial <input type="checkbox"/>    Probably not substantial <input type="checkbox"/>    Probably substantial <input type="checkbox"/>    Substantial <input type="checkbox"/></p>   |   |                           |
| <p><b>How substantial are the desirable anticipated effects?</b></p>                        | <p>Unclear <input type="checkbox"/>    Not substantial <input type="checkbox"/>    Probably not substantial <input checked="" type="checkbox"/>    Probably substantial <input type="checkbox"/>    Substantial <input type="checkbox"/></p>   |   |                           |
| <p><b>How substantial are the undesirable anticipated effects?</b></p>                      | <p>No <input type="checkbox"/>    Probably No <input type="checkbox"/>    Uncertain <input type="checkbox"/>    Probably Yes <input checked="" type="checkbox"/>    Yes <input type="checkbox"/>    Varies <input type="checkbox"/></p>  |   |                           |

|                            | CRITERIA                                       | JUDGEMENTS   | RESEARCH EVIDENCE  | ADDITIONAL CONSIDERATIONS |
|----------------------------|--|--|--|---------------------------|
| RESOURCE USE               | How substantial are the resource requirements? | <p>Not clear <input type="checkbox"/> Not substantial <input type="checkbox"/> Probably not substantial <input type="checkbox"/> Probably substantial <input checked="" type="checkbox"/> Substantial <input type="checkbox"/> Varies <input type="checkbox"/></p> | <ul style="list-style-type: none"> <li>Considering dressing materials, ancillary supplies and labor costs, hydrocolloid dressing was more cost-effective than topical collagen for eight weeks (average per patient cost hydrocolloid \$222 versus collagen \$627) (US dollars in 2003).<sup>7</sup> (<i>Low quality economic analysis</i>)</li> <li>Hydrocolloid required less frequent dressing changes than the collagen dressing (2/week vs 7/week), which led to lower labor costs.<sup>7</sup> (<i>Low quality economic analysis</i>)</li> </ul>   |                           |
| PRIORITY AND ACCEPTABILITY | Is the option acceptable to key stakeholders?  | <p>No <input type="checkbox"/> Probably No <input type="checkbox"/> Uncertain <input type="checkbox"/> Probably Yes <input type="checkbox"/> Yes <input type="checkbox"/> Varies <input checked="" type="checkbox"/></p>   | <p><b>Evidence for acceptability to people with pressure injuries</b></p> <ul style="list-style-type: none"> <li>Individuals rated a hydrocolloid dressing as inferior to a transparent, absorbent, acrylic dressing for overall comfort (<math>p&lt;0.001</math>) and for comfort during removal of the wound dressing (<math>p&lt;0.001</math>).<sup>6</sup> (<i>Level 1, low quality</i>)</li> </ul> <p><b>Evidence for acceptability to health professionals</b></p> <ul style="list-style-type: none"> <li>Health professionals rated a hydrocolloid dressing as inferior to a transparent, absorbent, acrylic film dressing for ability to assess the wound after application of the wound dressing (<math>p&lt;0.001</math>), conformability after application (<math>p&lt;0.001</math>), ease of removal (<math>p&lt;0.001</math>) and residue left on the wound (<math>p=0.002</math>) and peri-skin (<math>p=0.016</math>).<sup>6</sup> (<i>Level 1, low quality</i>)</li> <li>Hydrocolloid dressings were rated as awkward to apply to Category/Stage II and III pressure injuries for 18% (24/131) of wound dressing changes, particularly when applying to heels. Hydrocolloid dressing was significantly less often rated as good for conforming to the body compared to a polyurethane foam dressing (<math>p=0.018</math>).<sup>8</sup> (<i>Level 1, low quality</i>)</li> </ul> |                           |
|                            | Is the option a priority for key stakeholders? | <p>No <input type="checkbox"/> Probably No <input type="checkbox"/> Uncertain <input type="checkbox"/> Probably Yes <input type="checkbox"/> Yes <input checked="" type="checkbox"/> Varies <input type="checkbox"/></p>   | <p>72.1% (276/383) of respondents to a patient/ informal caregiver survey who identified as having experienced a pressure injury or being at risk of a pressure injury believed that knowing more about wound dressings is important or very important in caring for themselves. In the same survey, 67.3% (572/850) of informal caregivers believed that knowing more about wound dressings is important or very important in caring for their family member/friend with or at risk of a pressure injury.<sup>10,11</sup> (<i>Level 4</i>)</p>  |                           |
| FEASIBILITY                | Is the option feasible to implement?           | <p>No <input type="checkbox"/> Probably No <input type="checkbox"/> Uncertain <input type="checkbox"/> Probably Yes <input type="checkbox"/> Yes <input type="checkbox"/> Varies <input checked="" type="checkbox"/></p>   | <p>Hydrocolloid dressings may not be accessible in all geographic locations (<i>Expert opinion</i>).</p>   |                           |

|                                   |  |   |  |  |  |
|-----------------------------------|--|---|--|--|--|
| <b>Balance of consequences</b>    | Undesirable consequences <i>clearly outweigh</i> desirable consequences in most settings<br><input type="checkbox"/>   | Undesirable consequences <i>probably outweigh</i> desirable consequences in most settings<br><input type="checkbox"/> | The balance between desirable and undesirable consequences <i>is closely balanced or uncertain</i><br><input type="checkbox"/> | Desirable consequences <i>probably outweigh</i> undesirable consequences in most settings<br><input checked="" type="checkbox"/> | Desirable consequences <i>clearly outweigh</i> undesirable consequences in most settings<br><input type="checkbox"/> |
| <b>Strength of recommendation</b> | Strong negative recommendation: Definitely don't it<br><input type="checkbox"/>  | Weak negative recommendation: Probably don't do it<br><input type="checkbox"/>  | No specific recommendation<br><input type="checkbox"/>   | Weak positive recommendation: Probably do it<br><input checked="" type="checkbox"/>  | Strong positive recommendation: Definitely do it<br><input type="checkbox"/>   |
| <b>Justification</b>              | Evidence supports the use of different types of advanced wound dressings for Category/Stage II wound dressings based on the wound bed condition. Evidence from low quality Level 1 studies <sup>6-8</sup> suggests that pressure injury healing rates when a hydrocolloid dressing is applied to Category/Stage II pressure injuries do not differ significantly from healing rates when other contemporary wound dressings are used. There is limited information on current costs for using a hydrocolloid dressing. Although there is evidence to suggest that hydrocolloid dressings are acceptable options for health professionals, with a favorable profile for ease of removability, residue and conformability, individuals with pressure injuries tended to rate hydrocolloids lower than other wound dressings with respect to comfort during wear and during removal, <sup>6</sup> and higher rates of erythema have been reported. <sup>9</sup> |   |  |  |  |

**Clinical question**

Which wound dressings are effective for supporting healing of partial thickness pressure injuries?

**Recommendation 14.4**

**Use hydrogel dressings for non-infected Category/Stage II pressure injuries.**

**Option:** Applying a hydrogel dressing

**Comparison:** Applying a different type of wound dressing, or comparisons between different hydrogel dressings

**Background:** Hydrogels contain hydrated hydrophilic polymers that promotes moist wound healing and autolytic debridement.<sup>12</sup> Hydrogels may be a sheet dressing or an amorphous gel that is covered by a secondary dressing (e.g. a film, foam or hydrocolloid).

|  | CRITERIA  | JUDGEMENTS  | RESEARCH EVIDENCE  | ADDITIONAL CONSIDERATIONS  |
|--|---|---|--|--|
| BENEFITS & HARMS OF THE RECOMMENDED PRACTICE | What is the overall certainty of the evidence of effectiveness?               | No included studies <input type="checkbox"/> Very low <input type="checkbox"/> Low <input checked="" type="checkbox"/> Moderate <input type="checkbox"/> High <input type="checkbox"/>  | <p><b>Evidence for complete wound healing</b></p> <ul style="list-style-type: none"> <li>In individuals with spinal cord injury (SCI, n=27 with n=49 pressure injuries) and with non-infected Category/Stage I and II pressure injuries, significantly more wounds healed when treated with a hydrogel dressing compared with a povidone iodine dressing (84% vs 54.2%, p=0.04).<sup>13</sup> (<i>Level 1, low quality</i>)</li> <li>In older adults (n=30) with Category/Stage II to IV pressure injuries (47% were partial thickness), healing rates was not significantly different between an aloe vera hydrogel dressing and a saline gauze dressing (63% vs 64%, odds ratio [OR] 0.93, 85% confidence interval [CI] 0.16 to 5.2, p=0.92).<sup>14</sup> (<i>Level 1, low quality</i>)</li> </ul> <p><b>Evidence for wound healing rate</b></p> <ul style="list-style-type: none"> <li>In individuals with SCI and with Category/Stage I and II pressure injuries, the mean healing rate when using a hydrogel dressing was not significantly different (0.12±0.16cm<sup>2</sup>/day) than with a povidone-iodine gauze dressing (0.09±0.05cm<sup>2</sup>/day, p=0.97) but there was no difference in time to complete healing (p=0.06).<sup>13</sup> (<i>Level 1, low quality</i>)</li> </ul> <p><b>Potential adverse effects</b><br/>No evidence on potential adverse events was reported in the reviewed studies.</p> <p><b>Strength of Evidence: B1—Level 1 studies of moderate or low quality providing direct evidence; most studies have consistent outcomes and inconsistencies can be explained</b></p> | The studies investigated different hydrogel products, which may explain the inconsistencies in the evidence. |
|  | Is there important uncertainty about how much people value the main outcomes? | Important uncertainty or variability <input type="checkbox"/> Possibly important uncertainty or variability <input type="checkbox"/> Probably no important uncertainty or variability <input type="checkbox"/> No important uncertainty or variability <input checked="" type="checkbox"/> No known undesirable outcomes <input type="checkbox"/> |  |  |
|  | How substantial are the desirable anticipated effects?                        | Unclear <input type="checkbox"/> Not substantial <input type="checkbox"/> Probably not substantial <input type="checkbox"/> Probably substantial <input checked="" type="checkbox"/> Substantial <input type="checkbox"/>   |  |  |
|  | How substantial are the undesirable anticipated effects?                      | Unclear <input type="checkbox"/> Not substantial <input type="checkbox"/> Probably not substantial <input checked="" type="checkbox"/> Probably substantial <input type="checkbox"/> Substantial <input type="checkbox"/>   |  |  |
|  | Do the desirable effects outweigh the undesirable effects?                    | No <input type="checkbox"/> Probably No <input type="checkbox"/> Uncertain <input type="checkbox"/> Probably Yes <input checked="" type="checkbox"/> Yes <input type="checkbox"/> Varies <input type="checkbox"/>   |  |  |

|  | CRITERIA  | JUDGEMENTS  | RESEARCH EVIDENCE                   | ADDITIONAL CONSIDERATIONS           |                          |                      |             |                          |                          |                                     |                          |                                     |                          |  |  |  |
|--|---|---|-------------------------------------|-------------------------------------|--------------------------|----------------------|-------------|--------------------------|--------------------------|-------------------------------------|--------------------------|-------------------------------------|--------------------------|--|--|--|
| RESOURCE USE                                   | How substantial are the resource requirements?  | <table border="0"> <tr> <td>Not clear</td> <td>Not substantial</td> <td>Probably not substantial</td> <td>Probably substantial</td> <td>Substantial</td> <td>Varies</td> </tr> <tr> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> </table> | Not clear                           | Not substantial                     | Probably not substantial | Probably substantial | Substantial | Varies                   | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>   | <ul style="list-style-type: none"> <li>In older adults in aged care facilities, one study reported that aloe vera hydrogel dressing was changed daily, which was the same regimen as for a moist saline gauze dressing.<sup>14</sup></li> <li>In another study, hydrogel dressings were changed every four days (unless they became contaminated or non-occlusive), while a povidone-iodine soaked gauze dressing required daily changing.<sup>13</sup></li> </ul> |  |
| Not clear                                      | Not substantial   | Probably not substantial  | Probably substantial                | Substantial                         | Varies                   |                      |             |                          |                          |                                     |                          |                                     |                          |  |  |  |
| <input type="checkbox"/>                       | <input type="checkbox"/>  | <input type="checkbox"/>  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> |                      |             |                          |                          |                                     |                          |                                     |                          |  |  |  |
| PRIORITY AND ACCEPTABILITY                     | Is the option acceptable to key stakeholders?   | <table border="0"> <tr> <td>No</td> <td>Probably No</td> <td>Uncertain</td> <td>Probably Yes</td> <td>Yes</td> <td>Varies</td> </tr> <tr> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> </table>   | No                                  | Probably No                         | Uncertain                | Probably Yes         | Yes         | Varies                   | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>   | <p><b>Evidence for acceptability to people with pressure injuries</b></p> <ul style="list-style-type: none"> <li>In studies on full thickness pressure injuries, people rated a hydrogel dressing as more comfortable than a saline-soaked gauze dressing on a 1-4 scale (4.0 versus 3.0).<sup>12</sup> (<i>Level 1, low quality</i>)</li> </ul>   |  |
|  | No  | Probably No   | Uncertain                           | Probably Yes                        | Yes                      | Varies               |             |                          |                          |                                     |                          |                                     |                          |  |  |  |
| <input type="checkbox"/>                       | <input type="checkbox"/>  | <input type="checkbox"/>  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> |                      |             |                          |                          |                                     |                          |                                     |                          |  |  |  |
| Is the option a priority for key stakeholders? | <table border="0"> <tr> <td>No</td> <td>Probably No</td> <td>Uncertain</td> <td>Probably Yes</td> <td>Yes</td> <td>Varies</td> </tr> <tr> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> </table> | No  | Probably No                         | Uncertain                           | Probably Yes             | Yes                  | Varies      | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <p>72.1% (276/383) of respondents to a patient/ informal caregiver survey who identified as having experienced a pressure injury or being at risk of a pressure injury believed that knowing more about wound dressings is important or very important in caring for themselves. In the same survey, 67.3% (572/850) of informal caregivers believed that knowing more about wound dressings is important or very important in caring for their family member/friend with or at risk of a pressure injury.<sup>10,11</sup> (<i>Indirect evidence</i>).</p> |  |  |
| No   | Probably No   | Uncertain   | Probably Yes                        | Yes                                 | Varies                   |                      |             |                          |                          |                                     |                          |                                     |                          |  |  |  |
| <input type="checkbox"/>                       | <input type="checkbox"/>  | <input type="checkbox"/>  | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/> |                      |             |                          |                          |                                     |                          |                                     |                          |  |  |  |
| FEASIBILITY                                    | Is the option feasible to implement?  | <table border="0"> <tr> <td>No</td> <td>Probably No</td> <td>Uncertain</td> <td>Probably Yes</td> <td>Yes</td> <td>Varies</td> </tr> <tr> <td><input type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> </table>   | No                                  | Probably No                         | Uncertain                | Probably Yes         | Yes         | Varies                   | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/>   | <p>Hydrogel dressings may not be available in all geographic and clinical locations (<i>Expert opinion</i>)</p>  |  |
| No   | Probably No   | Uncertain   | Probably Yes                        | Yes                                 | Varies                   |                      |             |                          |                          |                                     |                          |                                     |                          |  |  |  |
| <input type="checkbox"/>                       | <input checked="" type="checkbox"/>   | <input type="checkbox"/>  | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/> |                      |             |                          |                          |                                     |                          |                                     |                          |  |  |  |

|                                   |  |   |  |  |  |
|-----------------------------------|--|---|--|--|--|
| <b>Balance of consequences</b>    | Undesirable consequences <i>clearly outweigh</i> desirable consequences in most settings<br><input type="checkbox"/>   | Undesirable consequences <i>probably outweigh</i> desirable consequences in most settings<br><input type="checkbox"/> | The balance between desirable and undesirable consequences <i>is closely balanced or uncertain</i><br><input type="checkbox"/> | Desirable consequences <i>probably outweigh</i> undesirable consequences in most settings<br><input checked="" type="checkbox"/> | Desirable consequences <i>clearly outweigh</i> undesirable consequences in most settings<br><input type="checkbox"/> |
| <b>Strength of recommendation</b> | Strong negative recommendation: Definitely don't it<br><input type="checkbox"/>  | Weak negative recommendation: Probably don't do it<br><input type="checkbox"/>  | No specific recommendation<br><input type="checkbox"/>   | Weak positive recommendation: Probably do it<br><input checked="" type="checkbox"/>  | Strong positive recommendation: Definitely do it<br><input type="checkbox"/>   |
| <b>Justification</b>              | Evidence supports the use of different types of advanced wound dressings for Category/Stage II wound dressings based on the wound bed condition. There is evidence from a low quality Level 1 study that Category/Stage II pressure injuries are more likely to heal with a hydrogel dressing compared to a standard moist gauze dressing, although healing rates may not be substantially faster. <sup>13</sup> A second study had conflicting results. <sup>14</sup> Inconsistencies in the findings may relate to the severity of the pressure injuries (e.g., one study <sup>14</sup> included full thickness pressure injuries), differing regimens, or different active components in the dressings (e.g., one study <sup>14</sup> used an aloe vera-based product). Ratings from people with pressure injuries suggested a hydrogel dressing is a comfortable wound dressing choice <sup>12</sup> and wound dressing changes may be performed less frequently than with a moistened gauze dressing. <sup>13</sup> |   |  |  |  |

**Clinical question**

Which wound dressings are effective for supporting healing of partial thickness pressure injuries?

**Recommendation 14.5**

**Use polymeric dressings for non-infected Category/Stage II pressure injuries.**

**Option:** Polymeric membrane dressings

**Comparison:** Applying a different type of wound dressing

**Background:** Polymeric dressings are a hydrophilic, polyurethane matrix contain wound cleanser, glycerin and absorbent polymer. The wound dressing is designed to manage moisture, inflammation and edema.<sup>15</sup>

|  | CRITERIA  | JUDGEMENTS  | RESEARCH EVIDENCE                                | ADDITIONAL CONSIDERATIONS                     |  |   |                                     |                          |                                     |                                     |                                     |                          |   |  |
|--|---|---|--|---|--|---|-------------------------------------|--------------------------|-------------------------------------|-------------------------------------|-------------------------------------|--------------------------|---|--|
| BENEFITS & HARMS OF THE PRACTICE                           | What is the overall certainty of the evidence?  | <table border="0"> <tr> <td>No included studies</td> <td>Very low</td> <td>Low</td> <td>Moderate</td> <td>High</td> </tr> <tr> <td><input type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> </table>  | No included studies                              | Very low                                      | Low  | Moderate                                | High                                | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/> | <p><b>Evidence for effectiveness for healing of Category/Stage I and II pressure injuries</b></p> <ul style="list-style-type: none"> <li>In older adults who received a polymeric membrane dressing, 67% (2/3) of Category/Stage I pressure injuries healed in between 5 and 19 days and 67% (6/9) of Category/Stage II pressure injuries healed in between 8 and 61 days.<sup>16</sup> (Level 4, low quality)</li> </ul> <p><b>Evidence for effectiveness in improving PUSH scores</b></p> <ul style="list-style-type: none"> <li>In older adults (n=44) with Category/Stage II pressure injuries, a polymeric dressing was associated with significantly greater improvements in PUSH scores compared to antibiotic ointment plus a dry dressing (mean improvement score 3.238±2.32 vs 1.6087±1.61637, p&lt;0.0001).<sup>17</sup> (Level 1, low quality)</li> </ul> <p><b>Evidence for effectiveness in managing exudate</b></p> <ul style="list-style-type: none"> <li>In laboratory studies, a polymeric dressing was able to absorb an 83% increase in its weight over 24 hours, suggesting the wound dressing has qualities conducive to exudate absorption.<sup>18</sup> (Level 5, indirect evidence)</li> </ul> <p><b>Potential adverse effects</b><br/>Adverse events were not reported.</p> <p><b>Strength of Evidence: B1—Level 1 studies of moderate or low quality providing direct evidence</b></p> |  |
|  | No included studies   | Very low  | Low  | Moderate                                      | High   |   |                                     |                          |                                     |                                     |                                     |                          |   |  |
|  | <input type="checkbox"/>  | <input checked="" type="checkbox"/>   | <input type="checkbox"/>                         | <input type="checkbox"/>                      | <input type="checkbox"/>                         |   |                                     |                          |                                     |                                     |                                     |                          |   |  |
|  | Is there important uncertainty about how much people value the main outcomes?   | <table border="0"> <tr> <td>Important uncertainty or variability</td> <td>Possibly important uncertainty or variability</td> <td>Probably no important uncertainty or variability</td> <td>No important uncertainty or variability</td> <td>No known undesirable outcomes</td> </tr> <tr> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> </table> | Important uncertainty or variability             | Possibly important uncertainty or variability | Probably no important uncertainty or variability | No important uncertainty or variability | No known undesirable outcomes       | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> |   |  |
|  | Important uncertainty or variability  | Possibly important uncertainty or variability   | Probably no important uncertainty or variability | No important uncertainty or variability       | No known undesirable outcomes                    |   |                                     |                          |                                     |                                     |                                     |                          |   |  |
| <input type="checkbox"/>                                   | <input type="checkbox"/>  | <input checked="" type="checkbox"/>   | <input type="checkbox"/>                         | <input type="checkbox"/>                      |  |   |                                     |                          |                                     |                                     |                                     |                          |   |  |
| How substantial are the desirable anticipated effects?     | <table border="0"> <tr> <td>Unclear</td> <td>Not substantial</td> <td>Probably not substantial</td> <td>Probably substantial</td> <td>Substantial</td> </tr> <tr> <td><input checked="" type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> </table>           | Unclear   | Not substantial                                  | Probably not substantial                      | Probably substantial                             | Substantial                             | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            |                          |   |  |
| Unclear  | Not substantial   | Probably not substantial  | Probably substantial                             | Substantial                                   |  |   |                                     |                          |                                     |                                     |                                     |                          |   |  |
| <input checked="" type="checkbox"/>                        | <input type="checkbox"/>  | <input type="checkbox"/>  | <input type="checkbox"/>                         | <input type="checkbox"/>                      |  |   |                                     |                          |                                     |                                     |                                     |                          |   |  |
| How substantial are the undesirable anticipated effects?   | <table border="0"> <tr> <td>Unclear</td> <td>Not substantial</td> <td>Probably not substantial</td> <td>Probably substantial</td> <td>Substantial</td> </tr> <tr> <td><input checked="" type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> </table>           | Unclear   | Not substantial                                  | Probably not substantial                      | Probably substantial                             | Substantial                             | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            |                          |   |  |
| Unclear  | Not substantial   | Probably not substantial  | Probably substantial                             | Substantial                                   |  |   |                                     |                          |                                     |                                     |                                     |                          |   |  |
| <input checked="" type="checkbox"/>                        | <input type="checkbox"/>  | <input type="checkbox"/>  | <input type="checkbox"/>                         | <input type="checkbox"/>                      |  |   |                                     |                          |                                     |                                     |                                     |                          |   |  |
| Do the desirable effects outweigh the undesirable effects? | <table border="0"> <tr> <td>No</td> <td>Probably No</td> <td>Uncertain</td> <td>Probably Yes</td> <td>Yes</td> <td>Varies</td> </tr> <tr> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> </table> | No  | Probably No                                      | Uncertain                                     | Probably Yes                                     | Yes                                     | Varies                              | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>  |  |
| No   | Probably No   | Uncertain   | Probably Yes                                     | Yes   | Varies   |   |                                     |                          |                                     |                                     |                                     |                          |   |  |
| <input type="checkbox"/>                                   | <input type="checkbox"/>  | <input type="checkbox"/>  | <input checked="" type="checkbox"/>              | <input type="checkbox"/>                      | <input type="checkbox"/>                         |   |                                     |                          |                                     |                                     |                                     |                          |   |  |

|  | CRITERIA  | JUDGEMENTS  | RESEARCH EVIDENCE AND ADDITIONAL CONSIDERATIONS |                                     |                                     |                      |             |                          |                                     |                          |                                     |                                     |                          |   |  |
|--|---|---|---|-------------------------------------|-------------------------------------|----------------------|-------------|--------------------------|-------------------------------------|--------------------------|-------------------------------------|-------------------------------------|--------------------------|---|--|
| RESOURCE USE                                   | How substantial are the resource requirements?  | <table border="0"> <tr> <td>Not clear</td> <td>Not substantial</td> <td>Probably not substantial</td> <td>Probably substantial</td> <td>Substantial</td> <td>Varies</td> </tr> <tr> <td><input checked="" type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> </table> | Not clear                                       | Not substantial                     | Probably not substantial            | Probably substantial | Substantial | Varies                   | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/>  | There was no evidence identified on the resource requirements for using polymeric membrane dressings for managing Category/Stage II pressure injuries. |
| Not clear                                      | Not substantial   | Probably not substantial  | Probably substantial                            | Substantial                         | Varies                              |                      |             |                          |                                     |                          |                                     |                                     |                          |   |  |
| <input checked="" type="checkbox"/>            | <input type="checkbox"/>  | <input type="checkbox"/>  | <input type="checkbox"/>                        | <input type="checkbox"/>            | <input type="checkbox"/>            |                      |             |                          |                                     |                          |                                     |                                     |                          |   |  |
| PRIORITY AND ACCEPTABILITY                     | Is the option acceptable to key stakeholders?   | <table border="0"> <tr> <td>No</td> <td>Probably No</td> <td>Uncertain</td> <td>Probably Yes</td> <td>Yes</td> <td>Varies</td> </tr> <tr> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> </table>   | No  | Probably No                         | Uncertain                           | Probably Yes         | Yes         | Varies                   | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/>  | No evidence available.   |
|  | No  | Probably No   | Uncertain                                       | Probably Yes                        | Yes                                 | Varies               |             |                          |                                     |                          |                                     |                                     |                          |   |  |
| <input type="checkbox"/>                       | <input type="checkbox"/>  | <input checked="" type="checkbox"/>   | <input type="checkbox"/>                        | <input type="checkbox"/>            | <input type="checkbox"/>            |                      |             |                          |                                     |                          |                                     |                                     |                          |   |  |
| Is the option a priority for key stakeholders? | <table border="0"> <tr> <td>No</td> <td>Probably No</td> <td>Uncertain</td> <td>Probably Yes</td> <td>Yes</td> <td>Varies</td> </tr> <tr> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> </table> | No  | Probably No                                     | Uncertain                           | Probably Yes                        | Yes                  | Varies      | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 72.1% (276/383) of respondents to a patient/ informal caregiver survey who identified as having experienced a pressure injury or being at risk of a pressure injury believed that knowing more about wound dressings is important or very important in caring for themselves. In the same survey, 67.3% (572/850) of informal caregivers believed that knowing more about wound dressings is important or very important in caring for their family member/friend with or at risk of a pressure injury. <sup>10,11</sup> ( <i>Indirect evidence</i> ) |  |
| No   | Probably No   | Uncertain   | Probably Yes                                    | Yes                                 | Varies                              |                      |             |                          |                                     |                          |                                     |                                     |                          |   |  |
| <input type="checkbox"/>                       | <input type="checkbox"/>  | <input type="checkbox"/>  | <input type="checkbox"/>                        | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |                      |             |                          |                                     |                          |                                     |                                     |                          |   |  |
| FEASIBILITY                                    | Is the option feasible to implement?  | <table border="0"> <tr> <td>No</td> <td>Probably No</td> <td>Uncertain</td> <td>Probably Yes</td> <td>Yes</td> <td>Varies</td> </tr> <tr> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> </tr> </table>   | No  | Probably No                         | Uncertain                           | Probably Yes         | Yes         | Varies                   | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/>   | Polymeric membrane dressings may not be available in all geographic and clinical locations ( <i>Expert opinion</i> )                                   |
| No   | Probably No   | Uncertain   | Probably Yes                                    | Yes                                 | Varies                              |                      |             |                          |                                     |                          |                                     |                                     |                          |   |  |
| <input type="checkbox"/>                       | <input type="checkbox"/>  | <input type="checkbox"/>  | <input type="checkbox"/>                        | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |                      |             |                          |                                     |                          |                                     |                                     |                          |   |  |

|                                   |  |   |  |  |  |
|-----------------------------------|--|---|--|--|--|
| <b>Balance of consequences</b>    | Undesirable consequences <i>clearly outweigh</i> desirable consequences in most settings<br><input type="checkbox"/>   | Undesirable consequences <i>probably outweigh</i> desirable consequences in most settings<br><input type="checkbox"/> | The balance between desirable and undesirable consequences <i>is closely balanced or uncertain</i><br><input type="checkbox"/> | Desirable consequences <i>probably outweigh</i> undesirable consequences in most settings<br><input checked="" type="checkbox"/> | Desirable consequences <i>clearly outweigh</i> undesirable consequences in most settings<br><input type="checkbox"/> |
| <b>Strength of recommendation</b> | Strong negative recommendation: Definitely don't it<br><input type="checkbox"/>  | Weak negative recommendation: Probably don't do it<br><input type="checkbox"/>  | No specific recommendation<br><input type="checkbox"/>   | Weak positive recommendation: Probably do it<br><input checked="" type="checkbox"/>  | Strong positive recommendation: Definitely do it<br><input type="checkbox"/>   |
| <b>Justification</b>              | Evidence supports the use of different types of advanced wound dressings for Category/Stage II wound dressings based on the wound bed condition. There is evidence from very small, low quality Level 1 studies <sup>16,17</sup> showing that polymeric membrane dressing is associated with improvements in some measures of wound healing, including PUSH scores. The low level evidence indicated that a Category/Stage I pressure injury could heal within 19 days with a polymeric dressing, and a Category/Stage II pressure injury could heal within 61 days. <sup>17</sup> Indirect evidence from a laboratory study provided support for the capacity of a polymeric membrane to absorb exudate. <sup>18</sup> There was no evidence available on potential adverse effects or resource requirements. |   |  |  |  |

**Clinical question**

Which wound dressings are effective for supporting healing of full thickness pressure injuries?

**Recommendation 14.6**

**Use a hydrogel dressing for non-infected Category/Stage III and IV pressure injuries with minimal exudate.**

**Option:** Applying a hydrogel dressing

**Comparison:** Applying a different type of wound dressing, or comparisons between different hydrogel dressings

**Background:** Hydrogels contain hydrated hydrophilic polymers that promotes moist wound healing and autolytic debridement.<sup>12</sup> Hydrogels may be a sheet dressing or an amorphous gel that is covered by a secondary dressing (e.g. a film, foam or hydrocolloid).

|  | CRITERIA  | JUDGEMENTS   | RESEARCH EVIDENCE  | ADDITIONAL CONSIDERATIONS |
|--|---|--|--|---------------------------|
| BENEFITS & HARMS OF THE RECOMMENDED PRACTICE | What is the overall certainty of the evidence of effectiveness?               | <p>No included studies <input type="checkbox"/></p> <p>Very low <input checked="" type="checkbox"/></p> <p>Low <input type="checkbox"/></p> <p>Moderate <input type="checkbox"/></p> <p>High <input type="checkbox"/></p>  | <p><b>Evidence for effectiveness in reducing pressure injury size</b></p> <ul style="list-style-type: none"> <li>In people with Category/Stage III and IV pressure injuries (n=32), treatment with an amorphous hydrogel was associated with significantly lower wound volumes after 12 weeks compared with wet saline gauze (26±20% versus 64±16%, p&lt;0.02).<sup>12</sup> (<i>Level 1, low quality</i>)</li> </ul> <p><b>Evidence for promoting wound debridement</b></p> <ul style="list-style-type: none"> <li>Fewer Category/Stage III and IV pressure injuries (n=32) treated with an amorphous hydrogel required weekly debridement compare with pressure injuries treated with wet saline gauze (21% versus 7%, p&lt;0.03).<sup>12</sup> (<i>Level 1, low quality</i>)</li> <li>In wounds of mixed etiology (n=67), mean wound surface area covered with slough reduced from 63% to 34% after three dressing changes when treated with a hydrogel dressing.<sup>19</sup> (<i>Indirect evidence</i>)</li> </ul> <p><b>Potential adverse effects</b></p> <p>No evidence on potential adverse events was reported in the reviewed studies.</p> <p><b>Strength of Evidence: B1—Level 1 studies of moderate or low quality providing direct evidence</b></p> |                           |
|  | Is there important uncertainty about how much people value the main outcomes? | <p>Important uncertainty or variability <input type="checkbox"/></p> <p>Possibly important uncertainty or variability <input type="checkbox"/></p> <p>Probably no important uncertainty or variability <input checked="" type="checkbox"/></p> <p>No important uncertainty or variability <input type="checkbox"/></p> <p>No known undesirable outcomes <input type="checkbox"/></p> |  |                           |
|  | How substantial are the desirable anticipated effects?                        | <p>Unclear <input checked="" type="checkbox"/></p> <p>Not substantial <input type="checkbox"/></p> <p>Probably not substantial <input type="checkbox"/></p> <p>Probably substantial <input type="checkbox"/></p> <p>Substantial <input type="checkbox"/></p>   |  |                           |
|  | How substantial are the undesirable anticipated effects?                      | <p>Unclear <input checked="" type="checkbox"/></p> <p>Not substantial <input type="checkbox"/></p> <p>Probably not substantial <input type="checkbox"/></p> <p>Probably substantial <input type="checkbox"/></p> <p>Substantial <input type="checkbox"/></p>   |  |                           |
|  | Do the desirable effects outweigh the undesirable effects?                    | <p>No <input type="checkbox"/></p> <p>Probably No <input type="checkbox"/></p> <p>Uncertain <input type="checkbox"/></p> <p>Probably Yes <input checked="" type="checkbox"/></p> <p>Yes <input type="checkbox"/></p> <p>Varies <input type="checkbox"/></p>  |  |                           |

|  | CRITERIA  | JUDGEMENTS  | RESEARCH EVIDENCE                   | ADDITIONAL CONSIDERATIONS           |                                     |                      |             |                          |                                     |                          |                          |                                     |                          |   |   |  |
|--|---|---|-------------------------------------|-------------------------------------|-------------------------------------|----------------------|-------------|--------------------------|-------------------------------------|--------------------------|--------------------------|-------------------------------------|--------------------------|---|---|--|
| RESOURCE USE                                   | How substantial are the resource requirements?  | <table border="0"> <tr> <td>Not clear</td> <td>Not substantial</td> <td>Probably not substantial</td> <td>Probably substantial</td> <td>Substantial</td> <td>Varies</td> </tr> <tr> <td><input checked="" type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> </table> | Not clear                           | Not substantial                     | Probably not substantial            | Probably substantial | Substantial | Varies                   | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/>  | <ul style="list-style-type: none"> <li>In people with Category/Stage III and IV pressure injuries, dressings changes were required less frequently than a wet saline gauze dressing, but the difference was not significant (hydrogel mean 1 day, range 1 to 7 days; gauze mean 1 day, range 0.5 to 1 day).<sup>12</sup> (Level 1, low quality)</li> </ul>  |  |
| Not clear                                      | Not substantial   | Probably not substantial  | Probably substantial                | Substantial                         | Varies                              |                      |             |                          |                                     |                          |                          |                                     |                          |   |   |  |
| <input checked="" type="checkbox"/>            | <input type="checkbox"/>  | <input type="checkbox"/>  | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            |                      |             |                          |                                     |                          |                          |                                     |                          |   |   |  |
| PRIORITY AND ACCEPTABILITY                     | Is the option acceptable to key stakeholders?   | <table border="0"> <tr> <td>No</td> <td>Probably No</td> <td>Uncertain</td> <td>Probably Yes</td> <td>Yes</td> <td>Varies</td> </tr> <tr> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> </table>   | No                                  | Probably No                         | Uncertain                           | Probably Yes         | Yes         | Varies                   | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>  | <p><b>Evidence for acceptability to people with pressure injuries</b></p> <ul style="list-style-type: none"> <li>People with Category II and IV pressure injuries rated a hydrogel dressing as more comfortable than a saline-soaked gauze dressing on a 1-4 scale (4.0 versus 3.0).<sup>12</sup> (Level 1, low quality)</li> <li>People with Category II and IV pressure injuries rated wounds treated with a hydrogel dressing as having the same pain levels (1-4 scale) as though treated with a wet saline gauze dressing (2.0 for both).<sup>12</sup> (Level 1, low quality)</li> </ul> |  |
|  | No  | Probably No   | Uncertain                           | Probably Yes                        | Yes                                 | Varies               |             |                          |                                     |                          |                          |                                     |                          |   |   |  |
| <input type="checkbox"/>                       | <input type="checkbox"/>  | <input type="checkbox"/>  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            |                      |             |                          |                                     |                          |                          |                                     |                          |   |   |  |
| Is the option a priority for key stakeholders? | <table border="0"> <tr> <td>No</td> <td>Probably No</td> <td>Uncertain</td> <td>Probably Yes</td> <td>Yes</td> <td>Varies</td> </tr> <tr> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> </table> | No  | Probably No                         | Uncertain                           | Probably Yes                        | Yes                  | Varies      | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <p>72.1% (276/383) of respondents to a patient/ informal caregiver survey who identified as having experienced a pressure injury or being at risk of a pressure injury believed that knowing more about wound dressings is important or very important in caring for themselves. Some respondents specifically identified managing exudate as a priority. In the same survey, 67.2% (572/850) of informal caregivers believed that knowing more about wound dressings is important or very important in caring for their family member/friend with or at risk of a pressure injury.<sup>10,11</sup></p> |   |  |
| No   | Probably No   | Uncertain   | Probably Yes                        | Yes                                 | Varies                              |                      |             |                          |                                     |                          |                          |                                     |                          |   |   |  |
| <input type="checkbox"/>                       | <input type="checkbox"/>  | <input type="checkbox"/>  | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |                      |             |                          |                                     |                          |                          |                                     |                          |   |   |  |
| FEASIBILITY                                    | Is the option feasible to implement?  | <table border="0"> <tr> <td>No</td> <td>Probably No</td> <td>Uncertain</td> <td>Probably Yes</td> <td>Yes</td> <td>Varies</td> </tr> <tr> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> </tr> </table>   | No                                  | Probably No                         | Uncertain                           | Probably Yes         | Yes         | Varies                   | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/>   | <p>Access to hydrogel dressings various across clinical and geographic settings (Expert opinion).</p>   |  |
| No   | Probably No   | Uncertain   | Probably Yes                        | Yes                                 | Varies                              |                      |             |                          |                                     |                          |                          |                                     |                          |   |   |  |
| <input type="checkbox"/>                       | <input type="checkbox"/>  | <input type="checkbox"/>  | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |                      |             |                          |                                     |                          |                          |                                     |                          |   |   |  |

|                                   |   |   |  |  |  |
|-----------------------------------|---|---|--|--|--|
| <b>Balance of consequences</b>    | Undesirable consequences <i>clearly outweigh</i> desirable consequences in most settings<br><input type="checkbox"/>  | Undesirable consequences <i>probably outweigh</i> desirable consequences in most settings<br><input type="checkbox"/> | The balance between desirable and undesirable consequences <i>is closely balanced or uncertain</i><br><input type="checkbox"/> | Desirable consequences <i>probably outweigh</i> undesirable consequences in most settings<br><input checked="" type="checkbox"/> | Desirable consequences <i>clearly outweigh</i> undesirable consequences in most settings<br><input type="checkbox"/> |
| <b>Strength of recommendation</b> | Strong negative recommendation: Definitely don't it<br><input type="checkbox"/>   | Weak negative recommendation: Probably don't do it<br><input type="checkbox"/>  | No specific recommendation<br><input type="checkbox"/>   | Weak positive recommendation: Probably do it<br><input checked="" type="checkbox"/>  | Strong positive recommendation: Definitely do it<br><input type="checkbox"/>   |
| <b>Justification:</b>             | Evidence from one low quality Level 1 study suggests that over 12 weeks a Category/Stage III or IV pressure injury treated with a hydrogel is more likely to have reduction in depth and less likely to require regular weekly debridement than a pressure injury treated with standard wet saline gauze. <sup>12</sup> Ratings from individuals with pressure injuries suggested a hydrogel dressing is a comfortable wound dressing choice and wound dressing changes might be required less frequently than with a moistened gauze dressing. <sup>12</sup> |   |  |  |  |

**Clinical question** Which wound dressings are effective for supporting healing of full thickness pressure injuries?

**Recommendation 14.7** Use calcium alginate dressings for Category/Stage III and IV pressure injuries with moderate exudate.

**Option:** Calcium Alginate

**Comparison:** Applying a different type of wound dressing

**Background:** Calcium alginate is a highly absorbent, biodegradable alginate dressing derived from seaweed. Alginate dressings maintain a physiologically moist microenvironment that promotes healing and the formation of granulation tissue.

|                                  | CRITERIA  | JUDGEMENTS   | RESEARCH EVIDENCE  | ADDITIONAL CONSIDERATIONS |
|----------------------------------|---|--|--|---------------------------|
| BENEFITS & HARMS OF THE PRACTICE | What is the overall certainty of the evidence?                                | <p>No included studies <input type="checkbox"/></p> <p>Very low <input type="checkbox"/></p> <p>Low <input type="checkbox"/></p> <p>Moderate <input checked="" type="checkbox"/></p> <p>High <input type="checkbox"/></p>  | <p><b>Evidence for reduction in pressure injury depth and surface area</b></p> <ul style="list-style-type: none"> <li>People with Category III or IV pressure injuries treated with sequential calcium alginate-hydrocolloid dressing for eight weeks had significantly greater reduction in mean surface area compared to hydrocolloid dressing only. The mean difference in area reduction was 26.5%, 95% confidence interval [CI] 10.62 to 42.38).<sup>20</sup> (Level 1, low quality)</li> <li>In older adults, significantly more Category/Stage II and IV pressure injuries treated with a calcium alginate dressing achieved at least 40% reduction in wound surface area compared to dextranomer paste (74% versus 42%, p=0.002).<sup>21</sup> (Level 1, moderate quality)</li> <li>In people with spina bifida and Category III or IV pressure injuries, wounds treated with a calcium alginate dressing had significant reductions in mean surface area compared to baseline (3.7±5.2cm<sup>2</sup> versus 12.5±7.5cm<sup>2</sup>, p&lt;0.001). 75% of individuals had a greater than 50% reduction in mean surface area by week 12.<sup>22</sup> (Level 4, low quality)</li> </ul> <p><b>Evidence for increase in pressure injury healing rate</b></p> <p>In older adults, Category/Stage II and IV pressure injuries treated with a calcium alginate dressing had a significantly faster healing rate compared to dextranomer paste (2.39±3.54cm<sup>2</sup>/week vs 0.27±3.21cm<sup>2</sup>/week, p=0.0001).<sup>21</sup> (Level 1, moderate quality)</p> <p><b>Potential adverse effects:</b></p> <ul style="list-style-type: none"> <li>In one study, a very small number of participants experienced minor adverse local events including erythema, maceration and bleeding. Hypergranulation occurred less often than with a hydrocolloid dressing.<sup>20</sup> (Level 1, low quality)</li> <li>In one study, fewer participants receiving a calcium alginate dressing experienced an adverse event compared to dextranomer paste (8% versus 33%).<sup>21</sup> (Level 1, moderate quality)</li> </ul> <p><b>Strength of Evidence: B1—Level 1 studies of moderate or low quality providing direct evidence</b></p> |                           |
|                                  | Is there important uncertainty about how much people value the main outcomes? | <p>Important uncertainty or variability <input type="checkbox"/></p> <p>Possibly important uncertainty or variability <input type="checkbox"/></p> <p>Probably no important uncertainty or variability <input type="checkbox"/></p> <p>No important uncertainty or variability <input checked="" type="checkbox"/></p> <p>No known undesirable outcomes <input type="checkbox"/></p> |  |                           |
|                                  | How substantial are the desirable anticipated effects?                        | <p>Unclear <input type="checkbox"/></p> <p>Not substantial <input type="checkbox"/></p> <p>Probably not substantial <input type="checkbox"/></p> <p>Probably substantial <input checked="" type="checkbox"/></p> <p>Substantial <input type="checkbox"/></p>   |  |                           |
|                                  | How substantial are the undesirable anticipated effects?                      | <p>Unclear <input type="checkbox"/></p> <p>Not substantial <input type="checkbox"/></p> <p>Probably not substantial <input checked="" type="checkbox"/></p> <p>Probably substantial <input type="checkbox"/></p> <p>Substantial <input type="checkbox"/></p>   |  |                           |
|                                  | Do the desirable effects outweigh the undesirable effects?                    | <p>No <input type="checkbox"/></p> <p>Probably No <input type="checkbox"/></p> <p>Uncertain <input type="checkbox"/></p> <p>Probably Yes <input checked="" type="checkbox"/></p> <p>Yes <input type="checkbox"/></p> <p>Varies <input type="checkbox"/></p>  |  |                           |

|  | CRITERIA   | JUDGEMENTS   | RESEARCH EVIDENCE AND ADDITIONAL CONSIDERATIONS |                                     |                                     |                      |             |                          |                                     |                          |                          |                                     |                                     |   |  |
|--|--|--|---|-------------------------------------|-------------------------------------|----------------------|-------------|--------------------------|-------------------------------------|--------------------------|--------------------------|-------------------------------------|-------------------------------------|---|--|
| RESOURCE USE                                   | How substantial are the resource requirements?   | <table> <tr> <td>Not clear</td> <td>Not substantial</td> <td>Probably not substantial</td> <td>Probably substantial</td> <td>Substantial</td> <td>Varies</td> </tr> <tr> <td><input checked="" type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> </table> | Not clear                                       | Not substantial                     | Probably not substantial            | Probably substantial | Substantial | Varies                   | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>  | Evidence on resource requirements for calcium alginate dressings is lacking.   |
| Not clear                                      | Not substantial  | Probably not substantial   | Probably substantial                            | Substantial                         | Varies                              |                      |             |                          |                                     |                          |                          |                                     |                                     |   |  |
| <input checked="" type="checkbox"/>            | <input type="checkbox"/>   | <input type="checkbox"/>   | <input type="checkbox"/>                        | <input type="checkbox"/>            | <input type="checkbox"/>            |                      |             |                          |                                     |                          |                          |                                     |                                     |   |  |
| PRIORITY AND ACCEPTABILITY                     | Is the option acceptable to key stakeholders?  | <table> <tr> <td>No</td> <td>Probably No</td> <td>Uncertain</td> <td>Probably Yes</td> <td>Yes</td> <td>Varies</td> </tr> <tr> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> </table>   | No  | Probably No                         | Uncertain                           | Probably Yes         | Yes         | Varies                   | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>  | <p><b>Evidence of acceptability to individuals with pressure injuries</b><br/>Pain during removal of the dressing was recorded as being significantly less likely with a calcium alginate dressing compared to a hydrocolloid dressing (p=0.03).<sup>20</sup> (Level 1, low quality)</p> <p><b>Evidence of acceptability to health professionals</b></p> <ul style="list-style-type: none"> <li>In one study, health professionals rated ease of removal for a calcium alginate dressing as equivalent to a hydrocolloid dressing (p=0.11).<sup>20</sup> (Level 1, low quality)</li> </ul> |
|  | No   | Probably No  | Uncertain                                       | Probably Yes                        | Yes                                 | Varies               |             |                          |                                     |                          |                          |                                     |                                     |   |  |
| <input type="checkbox"/>                       | <input type="checkbox"/>   | <input type="checkbox"/>   | <input type="checkbox"/>                        | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |                      |             |                          |                                     |                          |                          |                                     |                                     |   |  |
| Is the option a priority for key stakeholders? | <table> <tr> <td>No</td> <td>Probably No</td> <td>Uncertain</td> <td>Probably Yes</td> <td>Yes</td> <td>Varies</td> </tr> <tr> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> </table> | No   | Probably No                                     | Uncertain                           | Probably Yes                        | Yes                  | Varies      | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | 72.1% (276/383) of respondents to a patient/ informal caregiver survey who identified as having experienced a pressure injury or being at risk of a pressure injury believed that knowing more about wound dressings is important or very important in caring for themselves. Some respondents specifically identified managing exudate as a priority. In the same survey, 67.2% (572/850) of informal caregivers believed that knowing more about wound dressings is important or very important in caring for their family member/friend with or at risk of a pressure injury. <sup>10,11</sup> (Indirect evidence) |  |
| No   | Probably No  | Uncertain  | Probably Yes                                    | Yes                                 | Varies                              |                      |             |                          |                                     |                          |                          |                                     |                                     |   |  |
| <input type="checkbox"/>                       | <input type="checkbox"/>   | <input type="checkbox"/>   | <input type="checkbox"/>                        | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |                      |             |                          |                                     |                          |                          |                                     |                                     |   |  |
| FEASIBILITY                                    | Is the option feasible to implement?   | <table> <tr> <td>No</td> <td>Probably No</td> <td>Uncertain</td> <td>Probably Yes</td> <td>Yes</td> <td>Varies</td> </tr> <tr> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> </tr> </table>   | No  | Probably No                         | Uncertain                           | Probably Yes         | Yes         | Varies                   | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/>   | Access to hydrogel dressings varies across clinical and geographic settings (Expert opinion).  |
| No   | Probably No  | Uncertain  | Probably Yes                                    | Yes                                 | Varies                              |                      |             |                          |                                     |                          |                          |                                     |                                     |   |  |
| <input type="checkbox"/>                       | <input type="checkbox"/>   | <input type="checkbox"/>   | <input type="checkbox"/>                        | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |                      |             |                          |                                     |                          |                          |                                     |                                     |   |  |

|                                   |  |   |  |  |  |
|-----------------------------------|--|---|--|--|--|
| <b>Balance of consequences</b>    | Undesirable consequences <i>clearly outweigh</i> desirable consequences in most settings<br><input type="checkbox"/>   | Undesirable consequences <i>probably outweigh</i> desirable consequences in most settings<br><input type="checkbox"/> | The balance between desirable and undesirable consequences <i>is closely balanced or uncertain</i><br><input type="checkbox"/> | Desirable consequences <i>probably outweigh</i> undesirable consequences in most settings<br><input checked="" type="checkbox"/> | Desirable consequences <i>clearly outweigh</i> undesirable consequences in most settings<br><input type="checkbox"/> |
| <b>Strength of recommendation</b> | Strong negative recommendation: Definitely don't it<br><input type="checkbox"/>  | Weak negative recommendation: Probably don't do it<br><input type="checkbox"/>  | No specific recommendation<br><input type="checkbox"/>   | Weak positive recommendation: Probably do it<br><input checked="" type="checkbox"/>  | Strong positive recommendation: Definitely do it<br><input checked="" type="checkbox"/>                              |
| <b>Justification</b>              | There is evidence from low and moderate quality Level 1 studies <sup>20,21</sup> plus additional lower level evidence <sup>22</sup> indicating that full thickness pressure injuries treated with an alginate dressing will have greater reduction in surface area and depth compared with some other contemporary wound dressings. After eight weeks of treatment using a sequential calcium alginate/hydrocolloid dressing regimen, reduction in wound surface area could be about 26% greater than using a hydrocolloid dressing alone. <sup>20</sup> Individuals with pressure injuries rated alginate dressings as less painful to remove than a hydrocolloid dressing. <sup>20</sup> |   |  |  |  |

**Clinical question**

What wound dressings are effective for pressure injuries with higher levels of exudate?

**Recommendation 14.8**

**Use foam dressings (including hydropolymers) for Category/Stage II and greater pressure injuries with moderate/heavy exudate.**

**Option:** Using a foam wound dressing  
**Comparison:** using a different type of wound dressing, or a different type of foam wound dressing

**Background:** Foam dressings (including hydropolymers) absorb wound exudate from the wound bed. Simple foam dressings wick exudate from the wound bed and translocate it to the surface of the wound dressing. Complex foam dressings absorb wound exudate by dispersing it throughout the wound dressing for retention away from the skin. Gelling foam dressings manage excess wound exudate and protect surrounding skin from prolonged exposure to wound or body fluids. Foam dressings also promote moisture evaporation, thereby allowing more drainage to be wicked away from the wound bed and surrounding skin.

|  | CRITERIA  | JUDGEMENTS  | RESEARCH EVIDENCE                       | ADDITIONAL CONSIDERATIONS                     |  |   |                               |                          |                                     |                                     |                          |                          |  |  |
|--|---|---|---|---|--|---|-------------------------------|--------------------------|-------------------------------------|-------------------------------------|--------------------------|--------------------------|--|--|
| BENEFITS & HARMS OF THE RECOMMENDED PRACTICE             | What is the overall certainty of the evidence of effectiveness?   | <table border="0"> <tr> <td>No included studies</td> <td>Very low</td> <td>Low</td> <td>Moderate</td> <td>High</td> </tr> <tr> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> </table>  | No included studies                     | Very low                                      | Low  | Moderate                                | High                          | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <p><b>Evidence for effectiveness for complete wound healing or improved healing rates</b></p> <ul style="list-style-type: none"> <li>In people with Category/Stage II or III pressure injuries, there was no significant difference in percent of pressure injuries completely healed within 30 days between a foam dressing and a hydrocolloid dressing (foam 24% versus hydrocolloid 16%, p=not reported).<sup>8</sup> (Level 1, low quality)</li> <li>In people with Category/Stage III and IV pressure injuries, 74% of which had moderate or greater exudate levels, treatment with a hydropolymer foam dressing for 12 weeks achieved complete healing in 57.8% of the pressure injuries.<sup>23</sup> (Level 4, low quality)</li> <li>In older adults with Category/Stage III or IV pressure injuries, wounds treated with moist wound healing dressings (mainly foams) healed significantly faster than those treated with plain gauze dressings (85.56±52.1 days versus 121.4±52.1 days, p= 0.0001).<sup>4</sup> (Level 1, low quality)</li> </ul> <p><b>Effectiveness for effectiveness in reducing peri-skin damage</b></p> <ul style="list-style-type: none"> <li>In people with Category/Stage II pressure injuries ≥ 2cm<sup>2</sup>, or with Category/Stage III or IV pressure injuries with moderate or heavy exudate levels, treatment with a gelling foam dressing was associated with 65% improvement in healing of the peri-skin.<sup>24</sup> (Level 4, low quality)</li> </ul> <p><b>Evidence in effectiveness in managing exudate</b></p> <ul style="list-style-type: none"> <li>For Category/Stage II or III pressure injuries of ≤11cm diameter, patients were more likely to rate a foam dressing as having 'good' absorbency compared to a hydrocolloid dressing (81% versus 26%, p&lt;0.001).<sup>8</sup> (Level 1, low quality)</li> <li>In people with Category/Stage III and IV pressure injuries treated with a foam dressing for 12 weeks, only 3.8% of wounds had moderate or large exudate at the end of the trial, compared to 42.4% having moderate or strong exudate at trial commencement.<sup>23</sup> (Level 4, low quality)</li> </ul> | <p>In some trials people were excluded if pressure injuries showed clinical signs of local wound infection<sup>8</sup> or if they had systemic infection.<sup>4</sup> In another trial, local wound infection was treated with topical antiseptics.<sup>23</sup></p> |
|  | No included studies   | Very low  | Low                                     | Moderate                                      | High   |   |                               |                          |                                     |                                     |                          |                          |  |  |
|  | <input type="checkbox"/>  | <input type="checkbox"/>  | <input checked="" type="checkbox"/>     | <input type="checkbox"/>                      | <input type="checkbox"/>                         |   |                               |                          |                                     |                                     |                          |                          |  |  |
|  | Is there important uncertainty about how much people value the main outcomes?   | <table border="0"> <tr> <td>Important uncertainty or variability</td> <td>Possibly important uncertainty or variability</td> <td>Probably no important uncertainty or variability</td> <td>No important uncertainty or variability</td> <td>No known undesirable outcomes</td> </tr> <tr> <td><input type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> </table> | Important uncertainty or variability    | Possibly important uncertainty or variability | Probably no important uncertainty or variability | No important uncertainty or variability | No known undesirable outcomes | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/> |  |  |
| Important uncertainty or variability                     | Possibly important uncertainty or variability   | Probably no important uncertainty or variability  | No important uncertainty or variability | No known undesirable outcomes                 |  |   |                               |                          |                                     |                                     |                          |                          |  |  |
| <input type="checkbox"/>                                 | <input checked="" type="checkbox"/>   | <input type="checkbox"/>  | <input type="checkbox"/>                | <input type="checkbox"/>                      |  |   |                               |                          |                                     |                                     |                          |                          |  |  |
| How substantial are the desirable anticipated effects?   | <table border="0"> <tr> <td>Unclear</td> <td>Not substantial</td> <td>Probably not substantial</td> <td>Probably substantial</td> <td>Substantial</td> </tr> <tr> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> </table> | Unclear   | Not substantial                         | Probably not substantial                      | Probably substantial                             | Substantial                             | <input type="checkbox"/>      | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/> |                          |  |  |
| Unclear  | Not substantial   | Probably not substantial  | Probably substantial                    | Substantial                                   |  |   |                               |                          |                                     |                                     |                          |                          |  |  |
| <input type="checkbox"/>                                 | <input type="checkbox"/>  | <input type="checkbox"/>  | <input checked="" type="checkbox"/>     | <input type="checkbox"/>                      |  |   |                               |                          |                                     |                                     |                          |                          |  |  |
| How substantial are the undesirable anticipated effects? | <table border="0"> <tr> <td>Unclear</td> <td>Not substantial</td> <td>Probably not substantial</td> <td>Probably substantial</td> <td>Substantial</td> </tr> <tr> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> </table> | Unclear   | Not substantial                         | Probably not substantial                      | Probably substantial                             | Substantial                             | <input type="checkbox"/>      | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> |                          |  |  |
| Unclear  | Not substantial   | Probably not substantial  | Probably substantial                    | Substantial                                   |  |   |                               |                          |                                     |                                     |                          |                          |  |  |
| <input type="checkbox"/>                                 | <input type="checkbox"/>  | <input checked="" type="checkbox"/>   | <input type="checkbox"/>                | <input type="checkbox"/>                      |  |   |                               |                          |                                     |                                     |                          |                          |  |  |

| CRITERIA   | JUDGEMENTS  | RESEARCH EVIDENCE  | ADDITIONAL CONSIDERATIONS |
|--|---|--|---------------------------|
| <p><b>Do the desirable effects outweigh the undesirable effects?</b></p> | <p> <i>No</i>    <i>Probably No</i>    <i>Uncertain</i>    <i>Probably Yes</i>    <i>Yes</i>    <i>Varies</i><br/> <input type="checkbox"/>    <input type="checkbox"/>    <input type="checkbox"/>    <input checked="" type="checkbox"/>    <input type="checkbox"/>    <input type="checkbox"/> </p> | <p><b>Potential adverse effects</b><br/>           4.5% of participants treated with a hydropolymer foam dressing, were withdrawn due to low efficacy of dressing, intolerance and worsening of the pressure injury. 2.9% experienced pain, intolerance and itching.<sup>23</sup> (<i>Level 4, low quality</i>)</p> <p><b>Strength of Evidence: B1— Level 1 studies of moderate/ low quality providing direct evidence</b></p> |                           |

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|  | CRITERIA  | JUDGEMENTS  | RESEARCH EVIDENCE                   | ADDITIONAL CONSIDERATIONS           |                                     |                      |             |                          |                                     |                          |                          |                                     |                          |  |  |  |
|--|---|---|-------------------------------------|-------------------------------------|-------------------------------------|----------------------|-------------|--------------------------|-------------------------------------|--------------------------|--------------------------|-------------------------------------|--------------------------|--|--|--|
| RESOURCE USE                                   | How substantial are the resource requirements?  | <table border="0"> <tr> <td>Not clear</td> <td>Not substantial</td> <td>Probably not substantial</td> <td>Probably substantial</td> <td>Substantial</td> <td>Varies</td> </tr> <tr> <td><input checked="" type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> </table> | Not clear                           | Not substantial                     | Probably not substantial            | Probably substantial | Substantial | Varies                   | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/>   | <ul style="list-style-type: none"> <li>Pressure injuries treated with foam dressings required significantly fewer dressing changes compared to plain gauze (49.5±29.6 versus 222.6 ± 101.9, p&lt;0.0001). This was related to an average treatment cost per individual until healing being lower for Category/Stage III or IV pressure injuries treated with foam dressings compared to plain gauze (€1,351 v €3,888, trial performed in Greece).<sup>4</sup> (<i>Low quality economic analysis</i>)</li> <li>A systematic review on cost-effectiveness of foam dressings for healing Category/Stage II and above pressure injuries concluded there is limited evidence on clinical costs of foam dressings and no conclusions can be made on cost effectiveness compared with other types of dressings.<sup>25</sup> (<i>High quality systematic review</i>)</li> </ul> |  |
| Not clear                                      | Not substantial   | Probably not substantial  | Probably substantial                | Substantial                         | Varies                              |                      |             |                          |                                     |                          |                          |                                     |                          |  |  |  |
| <input checked="" type="checkbox"/>            | <input type="checkbox"/>  | <input type="checkbox"/>  | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            |                      |             |                          |                                     |                          |                          |                                     |                          |  |  |  |
| PRIORITY AND ACCEPTABILITY                     | Is the option acceptable to key stakeholders?   | <table border="0"> <tr> <td>No</td> <td>Probably No</td> <td>Uncertain</td> <td>Probably Yes</td> <td>Yes</td> <td>Varies</td> </tr> <tr> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> </table>   | No                                  | Probably No                         | Uncertain                           | Probably Yes         | Yes         | Varies                   | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>   | <p><b>Evidence for acceptability to individuals with pressure injuries</b></p> <ul style="list-style-type: none"> <li>People with Category/Stage II or III pressure injuries were more likely to rate a foam dressing as ‘good for conforming to the body’ compared to a hydrocolloid dressing (p=0.018).<sup>8</sup> (<i>Level 1, low quality</i>)</li> <li>Foam dressings were rated as significantly easier to remove than hydrocolloid dressings.<sup>8</sup> (<i>Level 1, low quality</i>)</li> </ul> <p><b>Evidence for acceptability to health professionals</b></p> <ul style="list-style-type: none"> <li>Physicians rated a hydrogel dressing used to treat pressure injuries as ‘much better’ than other wound dressings for 62.5% of individuals.<sup>23</sup> (<i>Level 4, low quality</i>)</li> </ul>  |  |
|  | No  | Probably No   | Uncertain                           | Probably Yes                        | Yes                                 | Varies               |             |                          |                                     |                          |                          |                                     |                          |  |  |  |
| <input type="checkbox"/>                       | <input type="checkbox"/>  | <input type="checkbox"/>  | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            |                      |             |                          |                                     |                          |                          |                                     |                          |  |  |  |
| Is the option a priority for key stakeholders? | <table border="0"> <tr> <td>No</td> <td>Probably No</td> <td>Uncertain</td> <td>Probably Yes</td> <td>Yes</td> <td>Varies</td> </tr> <tr> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> </table> | No  | Probably No                         | Uncertain                           | Probably Yes                        | Yes                  | Varies      | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <p>72.1% (276/383) of respondents to a patient/ informal caregiver survey who identified as having experienced a pressure injury or being at risk of a pressure injury believed that knowing more about wound dressings is important or very important in caring for themselves. Some respondents specifically identified managing exudate as a priority. In the same survey, 67.2% (572/850) of informal caregivers believed that knowing more about wound dressings is important or very important in caring for their family member/friend with or at risk of a pressure injury.<sup>10,11</sup> (<i>Indirect evidence</i>)</p> |  |  |
| No   | Probably No   | Uncertain   | Probably Yes                        | Yes                                 | Varies                              |                      |             |                          |                                     |                          |                          |                                     |                          |  |  |  |
| <input type="checkbox"/>                       | <input type="checkbox"/>  | <input type="checkbox"/>  | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |                      |             |                          |                                     |                          |                          |                                     |                          |  |  |  |
| FEASIBILITY                                    | Is the option feasible to implement?  | <table border="0"> <tr> <td>No</td> <td>Probably No</td> <td>Uncertain</td> <td>Probably Yes</td> <td>Yes</td> <td>Varies</td> </tr> <tr> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> </tr> </table>   | No                                  | Probably No                         | Uncertain                           | Probably Yes         | Yes         | Varies                   | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/>  | <p>Foam dressings may not be accessible in all geographic locations (<i>Expert opinion</i>).</p>   |  |
| No   | Probably No   | Uncertain   | Probably Yes                        | Yes                                 | Varies                              |                      |             |                          |                                     |                          |                          |                                     |                          |  |  |  |
| <input type="checkbox"/>                       | <input type="checkbox"/>  | <input type="checkbox"/>  | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |                      |             |                          |                                     |                          |                          |                                     |                          |  |  |  |

|                                   |   |   |  |  |  |
|-----------------------------------|---|---|--|--|--|
| <b>Balance of consequences</b>    | Undesirable consequences <i>clearly outweigh</i> desirable consequences in most settings<br><input type="checkbox"/>  | Undesirable consequences <i>probably outweigh</i> desirable consequences in most settings<br><input type="checkbox"/> | The balance between desirable and undesirable consequences <i>is closely balanced or uncertain</i><br><input type="checkbox"/> | Desirable consequences <i>probably outweigh</i> undesirable consequences in most settings<br><input checked="" type="checkbox"/> | Desirable consequences <i>clearly outweigh</i> undesirable consequences in most settings<br><input type="checkbox"/> |
| <b>Strength of recommendation</b> | Strong negative recommendation: Definitely don't it<br><input type="checkbox"/>   | Weak negative recommendation: Probably don't do it<br><input type="checkbox"/>  | No specific recommendation<br><input type="checkbox"/>   | Weak positive recommendation: Probably do it<br><input checked="" type="checkbox"/>  | Strong positive recommendation: Definitely do it<br><input type="checkbox"/>   |
| <b>Justification</b>              | There is evidence from a low quality Level 1 study <sup>8</sup> and a number of low quality Level 4 studies <sup>4,23,24</sup> suggesting that foam dressings offer an improvement in measures of pressure injury healing, <sup>4,8,23</sup> management of peri-wound skin <sup>24</sup> and reduction in wound exudate <sup>8,23</sup> in pressure injuries with high levels of exudate. Adverse effects appear to be minimal. Ratings from both individuals with pressure injuries <sup>8</sup> and health professionals <sup>23</sup> indicate that foam dressings are likely to be an acceptable wound dressing choice. |   |  |  |  |

**Clinical question**

What wound dressings are effective for pressure injuries with higher levels of exudate?

**Recommendation 14.9**

**Use super-absorbent wound dressings with a high capacity for absorption to manage heavily exuding pressure injuries.**

**Option:** Using a ‘super-absorbent’ dressing

**Comparison:** Using another type of wound dressing

**Background:** Super-absorbent dressings are complex multilayer dressings that provide either a semi-adherent quality or a non-adherent layer, combined with highly absorptive fibre layers comprised of cellulose, cotton, or rayon. Designed to minimise adherence to the wound and manage exudate.

|  | CRITERIA  | JUDGEMENTS  | RESEARCH EVIDENCE                                | ADDITIONAL CONSIDERATIONS                     |  |   |                                     |                          |                                     |                          |                                     |                          |  |  |
|--|---|---|--|---|--|---|-------------------------------------|--------------------------|-------------------------------------|--------------------------|-------------------------------------|--------------------------|--|--|
| BENEFITS & HARMS OF THE PRACTICE                           | What is the overall certainty of the evidence?  | <table border="0"> <tr> <td>No included studies</td> <td>Very low</td> <td>Low</td> <td>Moderate</td> <td>High</td> </tr> <tr> <td><input type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> </table>  | No included studies                              | Very low                                      | Low  | Moderate                                | High                                | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> | <p><b>Evidence for measure of pressure injury healing</b><br/>                     In older adults, heavily exuding category/stage III and IV pressure injuries demonstrated a reduction in mean PUSH score from 11.05 at baseline to 5.0 after eight weeks of treatment with a super-absorbent wound dressing. A reduction in wound surface area was also reported, reducing from 15.27 cm<sup>2</sup> to 7.63 cm<sup>2</sup>. No statistical analysis was provided.<sup>26</sup> (Level 4, moderate quality)</p> <p><b>Strength of Evidence: B2—Level 3 or 4 studies (regardless of quality) providing direct evidence</b></p> |  |
|  | No included studies   | Very low  | Low  | Moderate                                      | High   |   |                                     |                          |                                     |                          |                                     |                          |  |  |
|  | <input type="checkbox"/>  | <input checked="" type="checkbox"/>   | <input type="checkbox"/>                         | <input type="checkbox"/>                      | <input type="checkbox"/>                         |   |                                     |                          |                                     |                          |                                     |                          |  |  |
|  | Is there important uncertainty about how much people value the main outcomes?   | <table border="0"> <tr> <td>Important uncertainty or variability</td> <td>Possibly important uncertainty or variability</td> <td>Probably no important uncertainty or variability</td> <td>No important uncertainty or variability</td> <td>No known undesirable outcomes</td> </tr> <tr> <td><input type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> </table> | Important uncertainty or variability             | Possibly important uncertainty or variability | Probably no important uncertainty or variability | No important uncertainty or variability | No known undesirable outcomes       | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> |  |  |
|  | Important uncertainty or variability  | Possibly important uncertainty or variability   | Probably no important uncertainty or variability | No important uncertainty or variability       | No known undesirable outcomes                    |   |                                     |                          |                                     |                          |                                     |                          |  |  |
| <input type="checkbox"/>                                   | <input checked="" type="checkbox"/>   | <input type="checkbox"/>  | <input type="checkbox"/>                         | <input type="checkbox"/>                      |  |   |                                     |                          |                                     |                          |                                     |                          |  |  |
| How substantial are the desirable anticipated effects?     | <table border="0"> <tr> <td>Unclear</td> <td>Not substantial</td> <td>Probably not substantial</td> <td>Probably substantial</td> <td>Substantial</td> </tr> <tr> <td><input checked="" type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> </table>           | Unclear   | Not substantial                                  | Probably not substantial                      | Probably substantial                             | Substantial                             | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/>            |                          |  |  |
| Unclear  | Not substantial   | Probably not substantial  | Probably substantial                             | Substantial                                   |  |   |                                     |                          |                                     |                          |                                     |                          |  |  |
| <input checked="" type="checkbox"/>                        | <input type="checkbox"/>  | <input type="checkbox"/>  | <input type="checkbox"/>                         | <input type="checkbox"/>                      |  |   |                                     |                          |                                     |                          |                                     |                          |  |  |
| How substantial are the undesirable anticipated effects?   | <table border="0"> <tr> <td>Unclear</td> <td>Not substantial</td> <td>Probably not substantial</td> <td>Probably substantial</td> <td>Substantial</td> </tr> <tr> <td><input checked="" type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> </table>           | Unclear   | Not substantial                                  | Probably not substantial                      | Probably substantial                             | Substantial                             | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/>            |                          |  |  |
| Unclear  | Not substantial   | Probably not substantial  | Probably substantial                             | Substantial                                   |  |   |                                     |                          |                                     |                          |                                     |                          |  |  |
| <input checked="" type="checkbox"/>                        | <input type="checkbox"/>  | <input type="checkbox"/>  | <input type="checkbox"/>                         | <input type="checkbox"/>                      |  |   |                                     |                          |                                     |                          |                                     |                          |  |  |
| Do the desirable effects outweigh the undesirable effects? | <table border="0"> <tr> <td>No</td> <td>Probably No</td> <td>Uncertain</td> <td>Probably Yes</td> <td>Yes</td> <td>Varies</td> </tr> <tr> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> </table> | No  | Probably No                                      | Uncertain                                     | Probably Yes                                     | Yes                                     | Varies                              | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>   |  |
| No   | Probably No   | Uncertain   | Probably Yes                                     | Yes   | Varies   |   |                                     |                          |                                     |                          |                                     |                          |  |  |
| <input type="checkbox"/>                                   | <input type="checkbox"/>  | <input type="checkbox"/>  | <input checked="" type="checkbox"/>              | <input type="checkbox"/>                      | <input type="checkbox"/>                         |   |                                     |                          |                                     |                          |                                     |                          |  |  |

|  | CRITERIA  | JUDGEMENTS  | RESEARCH EVIDENCE AND ADDITIONAL CONSIDERATIONS |                                     |                                     |                      |             |                          |                                     |                          |                          |                                     |                          |  |  |
|--|---|---|---|-------------------------------------|-------------------------------------|----------------------|-------------|--------------------------|-------------------------------------|--------------------------|--------------------------|-------------------------------------|--------------------------|--|--|
| RESOURCE USE                                   | How substantial are the resource requirements?  | <table border="0"> <tr> <td>Not clear</td> <td>Not substantial</td> <td>Probably not substantial</td> <td>Probably substantial</td> <td>Substantial</td> <td>Varies</td> </tr> <tr> <td><input checked="" type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> </table> | Not clear                                       | Not substantial                     | Probably not substantial            | Probably substantial | Substantial | Varies                   | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/>   | There is no evidence available on resource requirements for super-absorbent wound dressings.   |
| Not clear                                      | Not substantial   | Probably not substantial  | Probably substantial                            | Substantial                         | Varies                              |                      |             |                          |                                     |                          |                          |                                     |                          |  |  |
| <input checked="" type="checkbox"/>            | <input type="checkbox"/>  | <input type="checkbox"/>  | <input type="checkbox"/>                        | <input type="checkbox"/>            | <input type="checkbox"/>            |                      |             |                          |                                     |                          |                          |                                     |                          |  |  |
| PRIORITY AND ACCEPTABILITY                     | Is the option acceptable to key stakeholders?   | <table border="0"> <tr> <td>No</td> <td>Probably No</td> <td>Uncertain</td> <td>Probably Yes</td> <td>Yes</td> <td>Varies</td> </tr> <tr> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> </table>   | No  | Probably No                         | Uncertain                           | Probably Yes         | Yes         | Varies                   | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>   | <p><b>Evidence of acceptability for people with pressure injuries</b></p> <ul style="list-style-type: none"> <li>The percentage of individuals rating their pressure injury as having a negative effect on quality of life fell from 54.5% to 18.1% at eight weeks following treatment with a superabsorbent dressing.<sup>26</sup> (<i>Level 4, moderate quality</i>)</li> <li>A reduction in pressure injury pain scores measured on an 11-point visual analogue scale from 3.69 to 0.67 at week eight was reported by individuals with a pressure injury treated with a superabsorbent dressing.<sup>26</sup> (<i>Level 4, moderate quality</i>)</li> </ul> |
|  | No  | Probably No   | Uncertain                                       | Probably Yes                        | Yes                                 | Varies               |             |                          |                                     |                          |                          |                                     |                          |  |  |
| <input type="checkbox"/>                       | <input type="checkbox"/>  | <input type="checkbox"/>  | <input checked="" type="checkbox"/>             | <input type="checkbox"/>            | <input type="checkbox"/>            |                      |             |                          |                                     |                          |                          |                                     |                          |  |  |
| Is the option a priority for key stakeholders? | <table border="0"> <tr> <td>No</td> <td>Probably No</td> <td>Uncertain</td> <td>Probably Yes</td> <td>Yes</td> <td>Varies</td> </tr> <tr> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> </table> | No  | Probably No                                     | Uncertain                           | Probably Yes                        | Yes                  | Varies      | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | 72.1% (276/383) of respondents to a patient/ informal caregiver survey who identified as having experienced a pressure injury or being at risk of a pressure injury believed that knowing more about wound dressings is important or very important in caring for themselves. Some respondents specifically identified managing exudate as a priority. In the same survey, 67.2% (572/850) of informal caregivers believed that knowing more about wound dressings is important or very important in caring for their family member/friend with or at risk of a pressure injury <sup>10,11</sup> ( <i>Indirect evidence</i> ). |  |
| No   | Probably No   | Uncertain   | Probably Yes                                    | Yes                                 | Varies                              |                      |             |                          |                                     |                          |                          |                                     |                          |  |  |
| <input type="checkbox"/>                       | <input type="checkbox"/>  | <input type="checkbox"/>  | <input type="checkbox"/>                        | <input checked="" type="checkbox"/> | <input type="checkbox"/>            |                      |             |                          |                                     |                          |                          |                                     |                          |  |  |
| FEASIBILITY                                    | Is the option feasible to implement?  | <table border="0"> <tr> <td>No</td> <td>Probably No</td> <td>Uncertain</td> <td>Probably Yes</td> <td>Yes</td> <td>Varies</td> </tr> <tr> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> </tr> </table>   | No  | Probably No                         | Uncertain                           | Probably Yes         | Yes         | Varies                   | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/>  | Super-absorbent dressings may not be accessible in all geographic locations ( <i>Expert opinion</i> ).   |
| No   | Probably No   | Uncertain   | Probably Yes                                    | Yes                                 | Varies                              |                      |             |                          |                                     |                          |                          |                                     |                          |  |  |
| <input type="checkbox"/>                       | <input type="checkbox"/>  | <input type="checkbox"/>  | <input type="checkbox"/>                        | <input type="checkbox"/>            | <input checked="" type="checkbox"/> |                      |             |                          |                                     |                          |                          |                                     |                          |  |  |

|                                   |  |   |  |  |  |
|-----------------------------------|--|---|--|--|--|
| <b>Balance of consequences</b>    | Undesirable consequences <i>clearly outweigh</i> desirable consequences in most settings<br><input type="checkbox"/>   | Undesirable consequences <i>probably outweigh</i> desirable consequences in most settings<br><input type="checkbox"/> | The balance between desirable and undesirable consequences <i>is closely balanced or uncertain</i><br><input type="checkbox"/> | Desirable consequences <i>probably outweigh</i> undesirable consequences in most settings<br><input checked="" type="checkbox"/> | Desirable consequences <i>clearly outweigh</i> undesirable consequences in most settings<br><input type="checkbox"/> |
| <b>Strength of recommendation</b> | Strong negative recommendation: Definitely don't it<br><input type="checkbox"/>  | Weak negative recommendation: Probably don't do it<br><input type="checkbox"/>  | No specific recommendation<br><input type="checkbox"/>   | Weak positive recommendation: Probably do it<br><input checked="" type="checkbox"/>  | Strong positive recommendation: Definitely do it<br><input type="checkbox"/>   |
| <b>Justification</b>              | There is low level evidence from one moderate quality Level 4 study <sup>26</sup> suggesting that a superabsorbent dressing is associated with healing of heavily exuding pressure injuries. Individuals with pressure injuries reported improvements in quality of life and reduction of pain by approximately three points on an 11-point scale when a superabsorbent dressing is used. There is no evidence on possible adverse events or the resource requirements for his wound dressing. |   |  |  |  |

**Clinical question**

What wound dressings are effective for supporting healing of partial thickness pressure injuries?

**Recommendation 14.10 Use moist gauze dressings to maintain an appropriately moist wound environment when advanced wound dressings are not an option.**

**Option:** Applying gauze dressing

**Comparison:** Applying a different type of wound dressing

**Background:** Gauze dressings are made of cotton or synthetic fabric that is absorptive and permeable to water, water vapor and oxygen. These dressings are generally considered a basic choice when access to contemporary wound dressings is limited.

|  | CRITERIA  | JUDGEMENTS  | RESEARCH EVIDENCE                                | ADDITIONAL CONSIDERATIONS                     |  |   |                                     |                          |                                     |                                     |                          |                          |   |   |
|--|---|---|--|---|--|---|-------------------------------------|--------------------------|-------------------------------------|-------------------------------------|--------------------------|--------------------------|---|---|
| BENEFITS & HARMS OF THE RECOMMENDED PRACTICE               | What is the overall certainty of the evidence of effectiveness?   | <table border="0"> <tr> <td>No included studies</td> <td>Very low</td> <td>Low</td> <td>Moderate</td> <td>High</td> </tr> <tr> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> </table>  | No included studies                              | Very low                                      | Low  | Moderate                                | High                                | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <p><b>Evidence for complete wound healing</b></p> <ul style="list-style-type: none"> <li>In older adults (n=30) with Category/Stage II to IV pressure injuries (47% were partial thickness), complete healing was not significantly different between a saline gauze dressing and an aloe vera hydrogel dressing and a (64% vs 63%, odds ratio [OR] 0.93, 85% confidence interval [CI] 0.16 to 5.2, p=0.92).<sup>14</sup> (Level 1, low quality)</li> </ul> <p><b>Evidence for other measures of wound healing</b></p> <ul style="list-style-type: none"> <li>In older adults with Category/Stage III or IV pressure injuries, wounds treated with moist gauze dressings healed significantly slower than those treated with moist wound healing dressings (mainly foams) (121.4±52.1 days versus 85.56±52.1 days, p= 0.0001).<sup>4</sup> (Level 1, low quality)</li> <li>In older adults with Category/Stage III or IV pressure injuries, wounds treated with moist gauze dressings required debridement on a weekly basis for a longer duration compared to those treated with hydrogel (21% versus 7%, p&lt;0.03).<sup>12</sup> (Level 1, low quality)</li> </ul> <p><b>Potential adverse effects</b></p> <p>Pain associated with a moist gauze dressing was higher than with a advanced wound dressing <sup>12</sup> (Level 1, low quality)</p> <p><b>Strength of Evidence: B1</b></p> | Conflicting findings are likely to relate to the comparison being made and the low quality study designs. |
|  | No included studies   | Very low  | Low  | Moderate                                      | High   |   |                                     |                          |                                     |                                     |                          |                          |   |   |
|  | <input type="checkbox"/>  | <input type="checkbox"/>  | <input checked="" type="checkbox"/>              | <input type="checkbox"/>                      | <input type="checkbox"/>                         |   |                                     |                          |                                     |                                     |                          |                          |   |   |
|  | Is there important uncertainty about how much people value the main outcomes?   | <table border="0"> <tr> <td>Important uncertainty or variability</td> <td>Possibly important uncertainty or variability</td> <td>Probably no important uncertainty or variability</td> <td>No important uncertainty or variability</td> <td>No known undesirable outcomes</td> </tr> <tr> <td><input type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> </table> | Important uncertainty or variability             | Possibly important uncertainty or variability | Probably no important uncertainty or variability | No important uncertainty or variability | No known undesirable outcomes       | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/> |   |   |
|  | Important uncertainty or variability  | Possibly important uncertainty or variability   | Probably no important uncertainty or variability | No important uncertainty or variability       | No known undesirable outcomes                    |   |                                     |                          |                                     |                                     |                          |                          |   |   |
| <input type="checkbox"/>                                   | <input checked="" type="checkbox"/>   | <input type="checkbox"/>  | <input type="checkbox"/>                         | <input type="checkbox"/>                      |  |   |                                     |                          |                                     |                                     |                          |                          |   |   |
| How substantial are the desirable anticipated effects?     | <table border="0"> <tr> <td>Unclear</td> <td>Not substantial</td> <td>Probably not substantial</td> <td>Probably substantial</td> <td>Substantial</td> </tr> <tr> <td><input checked="" type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> </table>           | Unclear   | Not substantial                                  | Probably not substantial                      | Probably substantial                             | Substantial                             | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/> |                          |   |   |
| Unclear  | Not substantial   | Probably not substantial  | Probably substantial                             | Substantial                                   |  |   |                                     |                          |                                     |                                     |                          |                          |   |   |
| <input checked="" type="checkbox"/>                        | <input type="checkbox"/>  | <input type="checkbox"/>  | <input type="checkbox"/>                         | <input type="checkbox"/>                      |  |   |                                     |                          |                                     |                                     |                          |                          |   |   |
| How substantial are the undesirable anticipated effects?   | <table border="0"> <tr> <td>Unclear</td> <td>Not substantial</td> <td>Probably not substantial</td> <td>Probably substantial</td> <td>Substantial</td> </tr> <tr> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> </table>           | Unclear   | Not substantial                                  | Probably not substantial                      | Probably substantial                             | Substantial                             | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/> |                          |   |   |
| Unclear  | Not substantial   | Probably not substantial  | Probably substantial                             | Substantial                                   |  |   |                                     |                          |                                     |                                     |                          |                          |   |   |
| <input type="checkbox"/>                                   | <input type="checkbox"/>  | <input type="checkbox"/>  | <input checked="" type="checkbox"/>              | <input type="checkbox"/>                      |  |   |                                     |                          |                                     |                                     |                          |                          |   |   |
| Do the desirable effects outweigh the undesirable effects? | <table border="0"> <tr> <td>No</td> <td>Probably No</td> <td>Uncertain</td> <td>Probably Yes</td> <td>Yes</td> <td>Varies</td> </tr> <tr> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> </table> | No  | Probably No                                      | Uncertain                                     | Probably Yes                                     | Yes                                     | Varies                              | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>  |   |
| No   | Probably No   | Uncertain   | Probably Yes                                     | Yes   | Varies   |   |                                     |                          |                                     |                                     |                          |                          |   |   |
| <input type="checkbox"/>                                   | <input type="checkbox"/>  | <input checked="" type="checkbox"/>   | <input type="checkbox"/>                         | <input type="checkbox"/>                      | <input type="checkbox"/>                         |   |                                     |                          |                                     |                                     |                          |                          |   |   |

|  | CRITERIA  | JUDGEMENTS  | RESEARCH EVIDENCE           | ADDITIONAL CONSIDERATIONS           |                                 |                             |                    |                          |                          |                                     |                          |                                     |                                     |   |  |  |
|--|---|---|-----------------------------|-------------------------------------|---------------------------------|-----------------------------|--------------------|--------------------------|--------------------------|-------------------------------------|--------------------------|-------------------------------------|-------------------------------------|---|--|--|
| RESOURCE USE                                   | How substantial are the resource requirements?  | <table border="0"> <tr> <td><i>Not clear</i></td> <td><i>Not substantial</i></td> <td><i>Probably not substantial</i></td> <td><i>Probably substantial</i></td> <td><i>Substantial</i></td> <td><i>Varies</i></td> </tr> <tr> <td><input type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> </table> | <i>Not clear</i>            | <i>Not substantial</i>              | <i>Probably not substantial</i> | <i>Probably substantial</i> | <i>Substantial</i> | <i>Varies</i>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>  | <ul style="list-style-type: none"> <li>Pressure injuries treated with plain gauze required significantly more dressing changes compared to foam dressings (222.6 ± 101.9 versus 49.5±29.6, p&lt;0.0001). This was related to an average treatment cost per individual until healing being higher for Category/Stage III or IV pressure injuries treated with plain gauze compared to foam dressings (€3,888 vs €1,351, trial performed in Greece).<sup>4</sup> (<i>Low quality economic analysis</i>)</li> </ul> |  |
| <i>Not clear</i>                               | <i>Not substantial</i>  | <i>Probably not substantial</i>   | <i>Probably substantial</i> | <i>Substantial</i>                  | <i>Varies</i>                   |                             |                    |                          |                          |                                     |                          |                                     |                                     |   |  |  |
| <input type="checkbox"/>                       | <input checked="" type="checkbox"/>   | <input type="checkbox"/>  | <input type="checkbox"/>    | <input type="checkbox"/>            | <input type="checkbox"/>        |                             |                    |                          |                          |                                     |                          |                                     |                                     |   |  |  |
| PRIORITY AND ACCEPTABILITY                     | Is the option acceptable to key stakeholders?   | <table border="0"> <tr> <td><i>No</i></td> <td><i>Probably No</i></td> <td><i>Uncertain</i></td> <td><i>Probably Yes</i></td> <td><i>Yes</i></td> <td><i>Varies</i></td> </tr> <tr> <td><input type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> </table>   | <i>No</i>                   | <i>Probably No</i>                  | <i>Uncertain</i>                | <i>Probably Yes</i>         | <i>Yes</i>         | <i>Varies</i>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>  | <p><b>Evidence for acceptability to people with pressure injuries</b></p> <ul style="list-style-type: none"> <li>In studies on full thickness pressure injuries, people rated saline-soaked gauze dressing as less comfortable than a hydrogel dressing on a 1-4 scale (3.0 versus 4.0).<sup>12</sup> (<i>Level 1, low quality</i>)</li> </ul>   |  |
|  | <i>No</i>   | <i>Probably No</i>  | <i>Uncertain</i>            | <i>Probably Yes</i>                 | <i>Yes</i>                      | <i>Varies</i>               |                    |                          |                          |                                     |                          |                                     |                                     |   |  |  |
| <input type="checkbox"/>                       | <input checked="" type="checkbox"/>   | <input type="checkbox"/>  | <input type="checkbox"/>    | <input type="checkbox"/>            | <input type="checkbox"/>        |                             |                    |                          |                          |                                     |                          |                                     |                                     |   |  |  |
| Is the option a priority for key stakeholders? | <table border="0"> <tr> <td><i>No</i></td> <td><i>Probably No</i></td> <td><i>Uncertain</i></td> <td><i>Probably Yes</i></td> <td><i>Yes</i></td> <td><i>Varies</i></td> </tr> <tr> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> </table> | <i>No</i>   | <i>Probably No</i>          | <i>Uncertain</i>                    | <i>Probably Yes</i>             | <i>Yes</i>                  | <i>Varies</i>      | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <p>72.1% (276/383) of respondents to a patient/ informal caregiver survey who identified as having experienced a pressure injury or being at risk of a pressure injury believed that knowing more about wound dressings is important or very important in caring for themselves. In the same survey, 67.3% (572/850) of informal caregivers believed that knowing more about wound dressings is important or very important in caring for their family member/friend with or at risk of a pressure injury.<sup>10,11</sup> (<i>Indirect evidence</i>)</p> |  |  |
| <i>No</i>                                      | <i>Probably No</i>  | <i>Uncertain</i>  | <i>Probably Yes</i>         | <i>Yes</i>                          | <i>Varies</i>                   |                             |                    |                          |                          |                                     |                          |                                     |                                     |   |  |  |
| <input type="checkbox"/>                       | <input type="checkbox"/>  | <input type="checkbox"/>  | <input type="checkbox"/>    | <input checked="" type="checkbox"/> | <input type="checkbox"/>        |                             |                    |                          |                          |                                     |                          |                                     |                                     |   |  |  |
| FEASIBILITY                                    | Is the option feasible to implement?  | <table border="0"> <tr> <td><i>No</i></td> <td><i>Probably No</i></td> <td><i>Uncertain</i></td> <td><i>Probably Yes</i></td> <td><i>Yes</i></td> <td><i>Varies</i></td> </tr> <tr> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> </table>   | <i>No</i>                   | <i>Probably No</i>                  | <i>Uncertain</i>                | <i>Probably Yes</i>         | <i>Yes</i>         | <i>Varies</i>            | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>  | <p>Moist gauze is available in most geographic and clinical settings (<i>Expert opinion</i>).</p>  |  |
| <i>No</i>                                      | <i>Probably No</i>  | <i>Uncertain</i>  | <i>Probably Yes</i>         | <i>Yes</i>                          | <i>Varies</i>                   |                             |                    |                          |                          |                                     |                          |                                     |                                     |   |  |  |
| <input type="checkbox"/>                       | <input type="checkbox"/>  | <input type="checkbox"/>  | <input type="checkbox"/>    | <input checked="" type="checkbox"/> | <input type="checkbox"/>        |                             |                    |                          |                          |                                     |                          |                                     |                                     |   |  |  |

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|-----------------------------------|---|---|---|---|--|
| <b>Balance of consequences</b>    | Undesirable consequences <i>clearly outweigh</i> desirable consequences in most settings<br><input type="checkbox"/>  | Undesirable consequences <i>probably outweigh</i> desirable consequences in most settings<br><input type="checkbox"/> | The balance between desirable and undesirable consequences <i>is closely balanced or uncertain</i><br><input checked="" type="checkbox"/> | Desirable consequences <i>probably outweigh</i> undesirable consequences in most settings<br><input type="checkbox"/> | Desirable consequences <i>clearly outweigh</i> undesirable consequences in most settings<br><input type="checkbox"/> |
| <b>Strength of recommendation</b> | Strong negative recommendation: Definitely don't it<br><input type="checkbox"/>   | Weak negative recommendation: Probably don't do it<br><input type="checkbox"/>  | No specific recommendation<br><input type="checkbox"/>  | Weak positive recommendation: Probably do it<br><input checked="" type="checkbox"/>                                   | Strong positive recommendation: Definitely do it<br><input type="checkbox"/>   |
| <b>Justification</b>              | Two low quality Level 1 studies <sup>4,12</sup> indicated that moist gauze dressings are associated with complete pressure injury healing, although healing took approximately 30% longer than compared to more modern wound dressings (e.g., hydrocolloids and foams). <sup>4</sup> A low quality Level 1 study reported no significant difference in healing with a moist gauze dressing compared to a hydrogel, with healing rates of about 66% over 10 weeks in both groups. <sup>14</sup> Therefore, moist wound dressings can achieve healing in the absence of an advanced wound dressing option. Moist gauze dressings were rated by individuals with pressure injuries as less comfortable than more advanced dressings <sup>12</sup> and a low quality economic analysis suggested that the requirement for more frequent dressing changes was associated with increased costs for using a moist gauze dressing. <sup>4</sup> |   |   |   |  |

**Clinical question**

What wound dressings are effective for supporting healing of partial thickness pressure injuries?

**Recommendation 14.11**

**Use a transparent film dressing as a secondary dressing when advanced wound dressings are not an option.**

**Option:** Applying gauze dressing

**Comparison:** Applying a different type of wound dressing

**Background:** Gauze dressings are made of cotton or synthetic fabric that is absorptive and permeable to water, water vapor and oxygen. These dressings are generally considered a basic choice when access to contemporary wound dressings is limited.

|  | CRITERIA  | JUDGEMENTS  | RESEARCH EVIDENCE                                | ADDITIONAL CONSIDERATIONS                     |  |   |                                     |                          |                                     |                                     |                          |  |  |  |
|--|---|---|--|---|--|---|-------------------------------------|--------------------------|-------------------------------------|-------------------------------------|--------------------------|--|--|--|
| BENEFITS & HARMS OF THE RECOMMENDED PRACTICE               | What is the overall certainty of the evidence of effectiveness?   | <table border="0"> <tr> <td>No included studies</td> <td>Very low</td> <td>Low</td> <td>Moderate</td> <td>High</td> </tr> <tr> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> </table>  | No included studies                              | Very low                                      | Low  | Moderate                                | High                                | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>               | <p><b>Evidence for complete wound healing</b></p> <ul style="list-style-type: none"> <li>In older adults (n=72) with Category II pressure injuries treated with either a film dressing or a hydrocolloid dressing for a maximum of 56 days, there was no significant difference in pressure injuries reaching complete wound healing (hydrocolloid 60% versus film 59.5%<math>p=0.963</math>).<sup>6</sup> (Level 1, low quality)</li> </ul> |  |
|  | No included studies   | Very low  | Low  | Moderate                                      | High   |   |                                     |                          |                                     |                                     |                          |  |  |  |
|  | <input type="checkbox"/>  | <input type="checkbox"/>  | <input checked="" type="checkbox"/>              | <input type="checkbox"/>                      | <input type="checkbox"/>                         |   |                                     |                          |                                     |                                     |                          |  |  |  |
|  | Is there important uncertainty about how much people value the main outcomes?   | <table border="0"> <tr> <td>Important uncertainty or variability</td> <td>Possibly important uncertainty or variability</td> <td>Probably no important uncertainty or variability</td> <td>No important uncertainty or variability</td> <td>No known undesirable outcomes</td> </tr> <tr> <td><input type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> </table> | Important uncertainty or variability             | Possibly important uncertainty or variability | Probably no important uncertainty or variability | No important uncertainty or variability | No known undesirable outcomes       | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/>               | <p><b>Potential adverse effects</b></p> <p>No data available</p>   |  |
|  | Important uncertainty or variability  | Possibly important uncertainty or variability   | Probably no important uncertainty or variability | No important uncertainty or variability       | No known undesirable outcomes                    |   |                                     |                          |                                     |                                     |                          |  |  |  |
| <input type="checkbox"/>                                   | <input checked="" type="checkbox"/>   | <input type="checkbox"/>  | <input type="checkbox"/>                         | <input type="checkbox"/>                      |  |   |                                     |                          |                                     |                                     |                          |  |  |  |
| How substantial are the desirable anticipated effects?     | <table border="0"> <tr> <td>Unclear</td> <td>Not substantial</td> <td>Probably not substantial</td> <td>Probably substantial</td> <td>Substantial</td> </tr> <tr> <td><input checked="" type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> </table>           | Unclear   | Not substantial                                  | Probably not substantial                      | Probably substantial                             | Substantial                             | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/> | <p><b>Strength of Evidence: B1</b></p> |  |  |
| Unclear  | Not substantial   | Probably not substantial  | Probably substantial                             | Substantial                                   |  |   |                                     |                          |                                     |                                     |                          |  |  |  |
| <input checked="" type="checkbox"/>                        | <input type="checkbox"/>  | <input type="checkbox"/>  | <input type="checkbox"/>                         | <input type="checkbox"/>                      |  |   |                                     |                          |                                     |                                     |                          |  |  |  |
| How substantial are the undesirable anticipated effects?   | <table border="0"> <tr> <td>Unclear</td> <td>Not substantial</td> <td>Probably not substantial</td> <td>Probably substantial</td> <td>Substantial</td> </tr> <tr> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> </table>           | Unclear   | Not substantial                                  | Probably not substantial                      | Probably substantial                             | Substantial                             | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/> |  |  |  |
| Unclear  | Not substantial   | Probably not substantial  | Probably substantial                             | Substantial                                   |  |   |                                     |                          |                                     |                                     |                          |  |  |  |
| <input type="checkbox"/>                                   | <input type="checkbox"/>  | <input type="checkbox"/>  | <input checked="" type="checkbox"/>              | <input type="checkbox"/>                      |  |   |                                     |                          |                                     |                                     |                          |  |  |  |
| Do the desirable effects outweigh the undesirable effects? | <table border="0"> <tr> <td>No</td> <td>Probably No</td> <td>Uncertain</td> <td>Probably Yes</td> <td>Yes</td> <td>Varies</td> </tr> <tr> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> </table> | No  | Probably No                                      | Uncertain                                     | Probably Yes                                     | Yes                                     | Varies                              | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>               | <input type="checkbox"/>   |  |
| No   | Probably No   | Uncertain   | Probably Yes                                     | Yes   | Varies   |   |                                     |                          |                                     |                                     |                          |  |  |  |
| <input type="checkbox"/>                                   | <input type="checkbox"/>  | <input checked="" type="checkbox"/>   | <input type="checkbox"/>                         | <input type="checkbox"/>                      | <input type="checkbox"/>                         |   |                                     |                          |                                     |                                     |                          |  |  |  |

|  | CRITERIA  | JUDGEMENTS  | RESEARCH EVIDENCE        | ADDITIONAL CONSIDERATIONS           |                          |                      |             |                          |                                     |                          |                          |                                     |                                     |   |   |  |
|--|---|---|--------------------------|-------------------------------------|--------------------------|----------------------|-------------|--------------------------|-------------------------------------|--------------------------|--------------------------|-------------------------------------|-------------------------------------|---|---|--|
| RESOURCE USE                                   | How substantial are the resource requirements?  | <table border="0"> <tr> <td>Not clear</td> <td>Not substantial</td> <td>Probably not substantial</td> <td>Probably substantial</td> <td>Substantial</td> <td>Varies</td> </tr> <tr> <td><input checked="" type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> </table> | Not clear                | Not substantial                     | Probably not substantial | Probably substantial | Substantial | Varies                   | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>  | No data available   |  |
| Not clear                                      | Not substantial   | Probably not substantial  | Probably substantial     | Substantial                         | Varies                   |                      |             |                          |                                     |                          |                          |                                     |                                     |   |   |  |
| <input checked="" type="checkbox"/>            | <input type="checkbox"/>  | <input type="checkbox"/>  | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> |                      |             |                          |                                     |                          |                          |                                     |                                     |   |   |  |
| PRIORITY AND ACCEPTABILITY                     | Is the option acceptable to key stakeholders?   | <table border="0"> <tr> <td>No</td> <td>Probably No</td> <td>Uncertain</td> <td>Probably Yes</td> <td>Yes</td> <td>Varies</td> </tr> <tr> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> </table>   | No                       | Probably No                         | Uncertain                | Probably Yes         | Yes         | Varies                   | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>  | <ul style="list-style-type: none"> <li>Individuals rated a film dressing as superior to a hydrocolloid dressing for overall comfort (<math>p &lt; 0.001</math>) and for comfort during removal of the wound dressing (<math>p &lt; 0.001</math>).<sup>6</sup> (<i>Level 1, low quality</i>)</li> <li>Health professionals rated an acrylic film dressing as superior to a hydrocolloid dressing for ability to assess the wound after application of the wound dressing (<math>p &lt; 0.001</math>), conformability after application (<math>p &lt; 0.001</math>), ease of removal (<math>p &lt; 0.001</math>) and residue left on the wound (<math>p = 0.002</math>) and periwound skin (<math>p = 0.016</math>).<sup>6</sup> (<i>Level 1, low quality</i>)</li> </ul> |  |
|  | No  | Probably No   | Uncertain                | Probably Yes                        | Yes                      | Varies               |             |                          |                                     |                          |                          |                                     |                                     |   |   |  |
| <input type="checkbox"/>                       | <input type="checkbox"/>  | <input type="checkbox"/>  | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |                      |             |                          |                                     |                          |                          |                                     |                                     |   |   |  |
| Is the option a priority for key stakeholders? | <table border="0"> <tr> <td>No</td> <td>Probably No</td> <td>Uncertain</td> <td>Probably Yes</td> <td>Yes</td> <td>Varies</td> </tr> <tr> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> </table> | No  | Probably No              | Uncertain                           | Probably Yes             | Yes                  | Varies      | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | 72.1% (276/383) of respondents to a patient/ informal caregiver survey who identified as having experienced a pressure injury or being at risk of a pressure injury believed that knowing more about wound dressings is important or very important in caring for themselves. In the same survey, 67.3% (572/850) of informal caregivers believed that knowing more about wound dressings is important or very important in caring for their family member/friend with or at risk of a pressure injury. <sup>10,11</sup> ( <i>Level 4</i> ) |   |  |
| No   | Probably No   | Uncertain   | Probably Yes             | Yes                                 | Varies                   |                      |             |                          |                                     |                          |                          |                                     |                                     |   |   |  |
| <input type="checkbox"/>                       | <input type="checkbox"/>  | <input type="checkbox"/>  | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |                      |             |                          |                                     |                          |                          |                                     |                                     |   |   |  |
| FEASIBILITY                                    | Is the option feasible to implement?  | <table border="0"> <tr> <td>No</td> <td>Probably No</td> <td>Uncertain</td> <td>Probably Yes</td> <td>Yes</td> <td>Varies</td> </tr> <tr> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> </table>   | No                       | Probably No                         | Uncertain                | Probably Yes         | Yes         | Varies                   | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>  | Transparent film is available in most geographic and clinical settings ( <i>Expert opinion</i> ).   |  |
| No   | Probably No   | Uncertain   | Probably Yes             | Yes                                 | Varies                   |                      |             |                          |                                     |                          |                          |                                     |                                     |   |   |  |
| <input type="checkbox"/>                       | <input type="checkbox"/>  | <input type="checkbox"/>  | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> |                      |             |                          |                                     |                          |                          |                                     |                                     |   |   |  |

|                                   |   |   |   |   |  |
|-----------------------------------|---|---|---|---|--|
| <b>Balance of consequences</b>    | Undesirable consequences <i>clearly outweigh</i> desirable consequences in most settings<br><input type="checkbox"/>  | Undesirable consequences <i>probably outweigh</i> desirable consequences in most settings<br><input type="checkbox"/> | The balance between desirable and undesirable consequences <i>is closely balanced or uncertain</i><br><input checked="" type="checkbox"/> | Desirable consequences <i>probably outweigh</i> undesirable consequences in most settings<br><input type="checkbox"/> | Desirable consequences <i>clearly outweigh</i> undesirable consequences in most settings<br><input type="checkbox"/> |
| <b>Strength of recommendation</b> | Strong negative recommendation: Definitely don't it<br><input type="checkbox"/>   | Weak negative recommendation: Probably don't do it<br><input type="checkbox"/>  | No specific recommendation<br><input checked="" type="checkbox"/>   | Weak positive recommendation: Probably do it<br><input type="checkbox"/>  | Strong positive recommendation: Definitely do it<br><input type="checkbox"/>   |
| <b>Justification</b>              | One low quality Level 1 study <sup>6</sup> provided evidence that healing rates of Category/Stage II pressure injuries with a transparent film secondary dressing were not significantly different to those when a hydrocolloid dressing was used. Subjective ratings from individual with pressure injuries and health professionals showed film dressings are preferable to some other wound dressings for comfort, conformability, ease of removal, residue and ability to assess the wound. Transparent film dressings are considered a low-cost option for treating pressure injuries that are an appropriate choice in some clinical situations |   |   |   |  |

**Clinical question** What wound dressings are effective for supporting healing of partial thickness pressure injuries?

**Good Practice Statement 14.12** Consider the available evidence and guidance on using local resource wound dressings when selecting dressings in geographic regions with limited access to resources.

**Background:** A large range of botanical and other natural products are used in wound care in geographic areas without access to contemporary wound products.

**SUPPORTING EVIDENCE, WHEN AVAILABLE**

**Evidence to support the opinion (when available)** Evidence for efficacy in wounds of different etiologies is available for local resource wound dressings (e.g. banana leaf dressing,<sup>27</sup> potato peel dressing<sup>28</sup> etc.) and could be extrapolated to pressure injuries.

**Justification** Access to contemporary wound dressing products is limited in many geographic regions. Health professionals practising in resource limited areas need to evaluate the availability of products and review the efficacy and potential risks of the options available to make choices with patient consumers and their informal caregivers regarding the most appropriate wound management.<sup>29</sup>

**Clinical question**

What local pressure injury treatments are effective for supporting healing (i.e. cleansing, debridement, topical agents, wound dressings, etc.)?

*Applying a topical agent to promote healing*

**Option:** Topical agent  
**Comparison:** No topical agent

**Background:** Topical agents are applied to the wound bed to promote healing. Different products purport to have a range of different actions, for example increasing vascular flow to the wound bed or reducing inflammation.

|  | CRITERIA  | JUDGEMENTS  | RESEARCH EVIDENCE                                |   |  |   |                                     |                                     |                                     |                                     |                          |  |   |  |
|--|---|---|--|---|--|---|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|--------------------------|--|---|--|
| BENEFITS & HARMS OF THE RECOMMENDED PRACTICE               | What is the overall certainty of the evidence of effectiveness?   | <table border="0"> <tr> <td>No included studies</td> <td>Very low</td> <td>Low</td> <td>Moderate</td> <td>High</td> </tr> <tr> <td><input type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> </table>  | No included studies                              | Very low                                      | Low  | Moderate                                | High                                | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/>   | <p><b>Evidence for topical sildenafil</b></p> <ul style="list-style-type: none"> <li>In Category/Stage I and II pressure injuries (n=122), topical sildenafil applied daily was associated with a significantly greater reduction in area of injury after 14 days compared to placebo cream for (p=0.007).<sup>30</sup> (Level 1, low quality)</li> </ul> <p><b>Strength of evidence: B1 - Level 1 studies of moderate or low quality providing direct evidence</b></p> |  |
|  | No included studies   | Very low  | Low  | Moderate                                      | High   |   |                                     |                                     |                                     |                                     |                          |  |   |  |
|  | <input type="checkbox"/>  | <input checked="" type="checkbox"/>   | <input type="checkbox"/>                         | <input type="checkbox"/>                      | <input type="checkbox"/>                         |   |                                     |                                     |                                     |                                     |                          |  |   |  |
|  | Is there important uncertainty about how much people value the main outcomes?   | <table border="0"> <tr> <td>Important uncertainty or variability</td> <td>Possibly important uncertainty or variability</td> <td>Probably no important uncertainty or variability</td> <td>No important uncertainty or variability</td> <td>No known undesirable outcomes</td> </tr> <tr> <td><input checked="" type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> </table> | Important uncertainty or variability             | Possibly important uncertainty or variability | Probably no important uncertainty or variability | No important uncertainty or variability | No known undesirable outcomes       | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/>   | <p><b>Evidence for topical atorvastatin</b></p> <ul style="list-style-type: none"> <li>In Category/Stage I and II pressure injuries (n=104), topical 1% atorvastatin applied daily for 14 days was associated with a significant reduction in area of injury compared to a placebo cream (p&lt;0.01).<sup>31</sup> (Level 1, high quality)</li> </ul> <p><b>Strength of evidence: B1 - Level 1 studies of moderate or low quality providing direct evidence</b></p>     |  |
|  | Important uncertainty or variability  | Possibly important uncertainty or variability   | Probably no important uncertainty or variability | No important uncertainty or variability       | No known undesirable outcomes                    |   |                                     |                                     |                                     |                                     |                          |  |   |  |
| <input checked="" type="checkbox"/>                        | <input type="checkbox"/>  | <input type="checkbox"/>  | <input type="checkbox"/>                         | <input type="checkbox"/>                      |  |   |                                     |                                     |                                     |                                     |                          |  |   |  |
| How substantial are the desirable anticipated effects?     | <table border="0"> <tr> <td>Unclear</td> <td>Not substantial</td> <td>Probably not substantial</td> <td>Probably substantial</td> <td>Substantial</td> </tr> <tr> <td><input checked="" type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> </table>           | Unclear   | Not substantial                                  | Probably not substantial                      | Probably substantial                             | Substantial                             | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/> | <p><b>Evidence for topical insulin</b></p> <ul style="list-style-type: none"> <li>In Category/Stage II and III pressure injuries (n=70), topical insulin spray applied twice daily for seven days was associated with a significant improvement in PUSH scores compared with saline soaked gauze. (p=0.03).<sup>32</sup> (Level 1, low quality)</li> </ul> <p><b>Strength of evidence: B1 - Level 1 studies of moderate or low quality providing direct evidence</b></p>               |   |  |
| Unclear  | Not substantial   | Probably not substantial  | Probably substantial                             | Substantial                                   |  |   |                                     |                                     |                                     |                                     |                          |  |   |  |
| <input checked="" type="checkbox"/>                        | <input type="checkbox"/>  | <input type="checkbox"/>  | <input type="checkbox"/>                         | <input type="checkbox"/>                      |  |   |                                     |                                     |                                     |                                     |                          |  |   |  |
| How substantial are the undesirable anticipated effects?   | <table border="0"> <tr> <td>Unclear</td> <td>Not substantial</td> <td>Probably not substantial</td> <td>Probably substantial</td> <td>Substantial</td> </tr> <tr> <td><input checked="" type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> </table>           | Unclear   | Not substantial                                  | Probably not substantial                      | Probably substantial                             | Substantial                             | <input checked="" type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/>            | <input type="checkbox"/> | <p><b>Evidence for topical nitric oxide</b></p> <ul style="list-style-type: none"> <li>In Category/Stage II or greater pressure injuries (n=58), topical nitric oxide cream containing sodium nitrite 6% and citric acid 9% applied for three weeks was associated with significant improvements over time in mean wound size (p&lt;0.01) but this was not statistically significantly different compared to placebo cream (p&lt;0.05).<sup>33</sup> (Level 2, low quality)</li> </ul> |   |  |
| Unclear  | Not substantial   | Probably not substantial  | Probably substantial                             | Substantial                                   |  |   |                                     |                                     |                                     |                                     |                          |  |   |  |
| <input checked="" type="checkbox"/>                        | <input type="checkbox"/>  | <input type="checkbox"/>  | <input type="checkbox"/>                         | <input type="checkbox"/>                      |  |   |                                     |                                     |                                     |                                     |                          |  |   |  |
| Do the desirable effects outweigh the undesirable effects? | <table border="0"> <tr> <td>No</td> <td>Probably No</td> <td>Uncertain</td> <td>Probably Yes</td> <td>Yes</td> <td>Varies</td> </tr> <tr> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> </table> | No  | Probably No                                      | Uncertain                                     | Probably Yes                                     | Yes                                     | Varies                              | <input type="checkbox"/>            | <input type="checkbox"/>            | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>   | <input type="checkbox"/>  |  |
| No   | Probably No   | Uncertain   | Probably Yes                                     | Yes   | Varies   |   |                                     |                                     |                                     |                                     |                          |  |   |  |
| <input type="checkbox"/>                                   | <input type="checkbox"/>  | <input checked="" type="checkbox"/>   | <input type="checkbox"/>                         | <input type="checkbox"/>                      | <input type="checkbox"/>                         |   |                                     |                                     |                                     |                                     |                          |  |   |  |

| CRITERIA | JUDGEMENTS | RESEARCH EVIDENCE  |  |
|----------|------------|--|--|
|          |            | <p><b>Strength of evidence: B2 – Level 2, 3 and 4 studies of providing direct evidence</b></p> <p><b>Evidence for topical phenytoin</b></p> <ul style="list-style-type: none"> <li>In older adults (n=19), pressure injuries treated with topical phenytoin powder (5 mg/L dissolved in a saline solution) plus saline soaked gauze healed significantly faster compared with saline soaked gauze only (19.36±3 days versus 28.75±2.43 days, p&lt;0.001).<sup>34</sup> (Level 1, low quality)</li> </ul> <p><b>Strength of evidence: B1 - Level 1 studies of moderate or low quality providing direct evidence</b></p> <p><b>Evidence for topical hemoglobin spray</b></p> <ul style="list-style-type: none"> <li>In individuals with Category/Stage II or greater pressure injuries (n=18), wounds treated with hemoglobin spray (pure hemoglobin in water, dose not reported) combined with a range of different wound dressings, showed signs of improvement after 4 weeks, including 100% having reduction in slough, reduction in size and depth and increase in granulation tissue.<sup>35</sup> (Level 4, low quality)</li> </ul> <p><b>Strength of evidence: B2 – Level 2, 3 and 4 studies of providing direct evidence</b></p> <p><b>Evidence for topical hyaluronate cream</b></p> <ul style="list-style-type: none"> <li>In Category/Stage II and greater pressure injuries (n=50), treatment with topical lysine hyaluronate cream applied daily for 15 days was associated with faster reduction in size than sodium hyaluronate (p&lt;0.05), suggesting no difference between different formulations of hyaluronate cream.<sup>36</sup> (Level 1, low quality)</li> </ul> <p><b>Strength of evidence: B1 - Level 1 studies of moderate or low quality providing direct evidence</b></p> <p><b>Evidence for topical herbal preparations/Chinese medicine products</b></p> <ul style="list-style-type: none"> <li>In Category/Stage II and III pressure injuries (n=32), Ligutrazine transdermal patch (extracted from the plant Ligusticum chuanxiong Hort) applied daily was associated with faster healing time than clotrimazole cream (9.33 days versus 24.26 days).<sup>37</sup> (Level 1, low quality)</li> <li>In Category/Stage IV pressure injuries (n=41), 100% of small pressure injuries and 58% of large pressure injuries treated with topical spray based on Calendula officinalis flower extracts applied twice daily healed by 30 weeks.<sup>38</sup> (Level 4, low quality)</li> <li>In Category/Stage IV pressure injuries (n=35), treatment with cure rot and flat sore ointment (CRFSO) was associated with more pressure injuries achieving a high rate of healing compared with arnebia root oil plus gentamicin (85% vs 45.45%).<sup>39</sup> (Level 3, low quality)</li> <li>In Category/Stage III and IV pressure injuries (n=72), moist exposed burn ointment (MEBO) applied every six hours for two months was not significantly different to receiving placebo cream for decreasing wound surface area (mean difference -6.0, 95% CI -8.8 to -3.3, p &lt;0.1).<sup>40</sup> (Level 1, low quality)</li> <li>In Category/Stage II or greater pressure injuries (n=22), resin salve applied every 1 to 3 days was associated with a higher rate of complete healing at 6 months compared to a hydrocolloid dressing (92% versus 44%, p=0.003).<sup>41</sup></li> </ul> |  |

| CRITERIA | JUDGEMENTS | RESEARCH EVIDENCE   |  |
|----------|------------|---|--|
|          |            | <p><i>(Level 1, low quality)</i></p> <p><b>Strength of evidence: B1 - Level 1 studies of moderate or low quality providing direct evidence</b></p> <p><b>Evidence for intradermal collagen</b></p> <ul style="list-style-type: none"> <li>• In Category/Stage II and III pressure injuries (n=24) intradermal injection of a collagen-based preparation for three weeks was not associated with any significant difference in percent reduction in wound diameters (58.52% vs 45.51%. <math>p&gt;0.05</math>).<sup>42</sup><i>(Level 1, low quality)</i></li> </ul> <p><b>Strength of evidence: B1 - Level 1 studies of moderate or low quality providing direct evidence</b></p> |  |

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|                                     | CRITERIA                                       | JUDGEMENTS  | RESEARCH EVIDENCE           | ADDITIONAL CONSIDERATIONS |                                     |                             |                    |               |                                     |                          |                                     |                          |                          |                                     |  |  |
|-------------------------------------|--|---|-----------------------------|---------------------------|-------------------------------------|-----------------------------|--------------------|---------------|-------------------------------------|--------------------------|-------------------------------------|--------------------------|--------------------------|-------------------------------------|--|--|
| RESOURCE USE                        | How substantial are the resource requirements? | <table border="0"> <tr> <td><i>Not clear</i></td> <td><i>Not substantial</i></td> <td><i>Probably not substantial</i></td> <td><i>Probably substantial</i></td> <td><i>Substantial</i></td> <td><i>Varies</i></td> </tr> <tr> <td><input checked="" type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> </table> | <i>Not clear</i>            | <i>Not substantial</i>    | <i>Probably not substantial</i>     | <i>Probably substantial</i> | <i>Substantial</i> | <i>Varies</i> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | No evidence available  |  |
| <i>Not clear</i>                    | <i>Not substantial</i>                         | <i>Probably not substantial</i>   | <i>Probably substantial</i> | <i>Substantial</i>        | <i>Varies</i>                       |                             |                    |               |                                     |                          |                                     |                          |                          |                                     |  |  |
| <input checked="" type="checkbox"/> | <input type="checkbox"/>                       | <input type="checkbox"/>  | <input type="checkbox"/>    | <input type="checkbox"/>  | <input type="checkbox"/>            |                             |                    |               |                                     |                          |                                     |                          |                          |                                     |  |  |
| PRIORITY AND ACCEPTABILITY          | Is the option acceptable to key stakeholders?  | <table border="0"> <tr> <td><i>No</i></td> <td><i>Probably No</i></td> <td><i>Uncertain</i></td> <td><i>Probably Yes</i></td> <td><i>Yes</i></td> <td><i>Varies</i></td> </tr> <tr> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> </table>   | <i>No</i>                   | <i>Probably No</i>        | <i>Uncertain</i>                    | <i>Probably Yes</i>         | <i>Yes</i>         | <i>Varies</i> | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | No evidence available  |  |
|                                     | <i>No</i>                                      | <i>Probably No</i>  | <i>Uncertain</i>            | <i>Probably Yes</i>       | <i>Yes</i>                          | <i>Varies</i>               |                    |               |                                     |                          |                                     |                          |                          |                                     |  |  |
| <input type="checkbox"/>            | <input type="checkbox"/>                       | <input checked="" type="checkbox"/>   | <input type="checkbox"/>    | <input type="checkbox"/>  | <input type="checkbox"/>            |                             |                    |               |                                     |                          |                                     |                          |                          |                                     |  |  |
|                                     | Is the option a priority for key stakeholders? | <table border="0"> <tr> <td><i>No</i></td> <td><i>Probably No</i></td> <td><i>Uncertain</i></td> <td><i>Probably Yes</i></td> <td><i>Yes</i></td> <td><i>Varies</i></td> </tr> <tr> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> </table>   | <i>No</i>                   | <i>Probably No</i>        | <i>Uncertain</i>                    | <i>Probably Yes</i>         | <i>Yes</i>         | <i>Varies</i> | <input type="checkbox"/>            | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/> | <input type="checkbox"/>            | No evidence available  |  |
| <i>No</i>                           | <i>Probably No</i>                             | <i>Uncertain</i>  | <i>Probably Yes</i>         | <i>Yes</i>                | <i>Varies</i>                       |                             |                    |               |                                     |                          |                                     |                          |                          |                                     |  |  |
| <input type="checkbox"/>            | <input type="checkbox"/>                       | <input checked="" type="checkbox"/>   | <input type="checkbox"/>    | <input type="checkbox"/>  | <input type="checkbox"/>            |                             |                    |               |                                     |                          |                                     |                          |                          |                                     |  |  |
| FEASIBILITY                         | Is the option feasible to implement?           | <table border="0"> <tr> <td><i>No</i></td> <td><i>Probably No</i></td> <td><i>Uncertain</i></td> <td><i>Probably Yes</i></td> <td><i>Yes</i></td> <td><i>Varies</i></td> </tr> <tr> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input checked="" type="checkbox"/></td> </tr> </table>   | <i>No</i>                   | <i>Probably No</i>        | <i>Uncertain</i>                    | <i>Probably Yes</i>         | <i>Yes</i>         | <i>Varies</i> | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/>            | <input type="checkbox"/> | <input type="checkbox"/> | <input checked="" type="checkbox"/> | <ul style="list-style-type: none"> <li>Accessibility to products is limited in most geographic regions. (<i>Expert opinion</i>)</li> </ul> |  |
| <i>No</i>                           | <i>Probably No</i>                             | <i>Uncertain</i>  | <i>Probably Yes</i>         | <i>Yes</i>                | <i>Varies</i>                       |                             |                    |               |                                     |                          |                                     |                          |                          |                                     |  |  |
| <input type="checkbox"/>            | <input type="checkbox"/>                       | <input type="checkbox"/>  | <input type="checkbox"/>    | <input type="checkbox"/>  | <input checked="" type="checkbox"/> |                             |                    |               |                                     |                          |                                     |                          |                          |                                     |  |  |

|                                   |  |   |   |   |  |
|-----------------------------------|--|---|---|---|--|
| <b>Balance of consequences</b>    | Undesirable consequences <i>clearly outweigh</i> desirable consequences in most settings<br><input type="checkbox"/>   | Undesirable consequences <i>probably outweigh</i> desirable consequences in most settings<br><input type="checkbox"/> | The balance between desirable and undesirable consequences <i>is closely balanced or uncertain</i><br><input checked="" type="checkbox"/> | Desirable consequences <i>probably outweigh</i> undesirable consequences in most settings<br><input type="checkbox"/> | Desirable consequences <i>clearly outweigh</i> undesirable consequences in most settings<br><input type="checkbox"/> |
| <b>Strength of recommendation</b> | Strong negative recommendation: Definitely don't it<br><input type="checkbox"/>  | Weak negative recommendation: Probably don't do it<br><input type="checkbox"/>  | No specific recommendation<br><input type="checkbox"/>  | Weak positive recommendation: Probably do it<br><input type="checkbox"/>  | Strong positive recommendation: Definitely do it<br><input type="checkbox"/>   |
| <b>Recommendation (text)</b>      | <b>No recommendation.</b>  |   |   |   |  |
| <b>Justification</b>              | There is a small body of evidence on a range of different topical products applied to the wound bed to promote healing (e.g. through promoting blood flow to the wound bed, reducing inflammation etc.). The studies are small, and few studies make a comparison to contemporary wound care practices. No single product is reported in more than one study, head-to-head comparisons of different topical agents are lacking and most studies of low quality, therefore evaluation of clinical efficacy and comparative effectiveness of topical products is not possible. |   |   |   |  |

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