Hydrogel Burn Dressings Position Statement

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HYDROGEL BURNS DRESSINGS

- Hydrogel burn dressings are hydro-gelatinous sheets, consisting of a non-resorbable matrix of hydrophilic polymers containing >90% water in suspension, and used as an alternative to traditional burns first aid approaches, promoted to cool and dress acute burn wounds.[1,2.]
- Hydrogel burn dressings are suggested to reduce thermal energy in the burn wound via convective and evaporative mechanisms but function most effectively when exposed to an open-air environment. Efficiency may vary relative to wound heat, ambient environmental conditions and duration of use.
- Manufacturers promote hydrogel burn dressings to reduce pain, stop burn progression and prevent further injury.[3]

CLINICAL EVIDENCE

- Current evidence demonstrates that the cooling benefits of water include: reducing burn wound temperature, easing pain, ameliorating burn progression, slowing and reduction of the inflammatory response, reducing oedema formation and limiting the necessity for surgical interventions whilst positively impacting healing, hospital stay, ICU admission, cosmetic and recovery outcome s.[3,4,5,6,7,8,9,10,11,12,13,14,15,16,17,18,19]
- There does not seem to be any evidence supporting the use of hydrogel burn dressings as a superior option to water, when this is available, in order to cool the burn wound.[20]

BEST PRACTICE RECOMMENDATIONS

1. Water remains the best available first-aid option to cool the burn wound due to its evidenced benefits, lack of side effects and widespread availability.
2. The use of hydrogel burn dressings as first cooling option is not recommended if water is available.
3. Hydrogel burn dressings should not be used as a stand-alone burn dressing alternative.
4. Hydrogel burn dressings should not be used to cool chemical burns.
5. Timely removal of hydrogel burn dressings is essential to limit the potential for hypothermia. Risks may outweigh benefits beyond currently accepted first aid application times for water and prolonged exposure should be avoided.

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