Title of Guideline (must include the word "Guideline" (not protocol, policy, procedure etc)	Nursing Guideline for Epiprotect Dressing for children and young people.
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Directorate & Speciality	Nottingham Children's Hospital Family Health Children's Burns and Plastics
Date of submission	28th May 2019
Date on which guideline must be reviewed (this should be one to three years)	28th May 2022
Explicit definition of patient group to which it applies (e.g. inclusion and exclusion criteria, diagnosis)	All children and young people requiring Epiprotect dressing in burns 2%TBSA or larger
Abstract	Epiprotect is a bio-synthetic cellulose based membrane that provides a temporary epithelium during skin loss. Epiprotect is free from human or animal derivatives. It is indicated for the treatment of partial thickness, mid dermal burns and skin loss and is applied under a general anaesthetic. This guideline is for the ongoing care of the Epiprotect dressing in the post-operative period until healing is complete.
Key Words	Epiprotect, burns, children and young people
Statement of the evidence base of the guideline – has the guideline been peer reviewed by colleagues? Evidence base: (1-6)	2b, 4, 5, 6.
Consultation Process	Mr. Skaria Alexander consultant burns and plastic surgeon. Mr. Ciaran O'Boyle consultant burns and plastic surgeon.
Target audience	For nurses caring for children and young people following application of Epiprotect dressing

1	NICE Guidance, Royal College Guideline, SIGN (please state which source).
2a	meta analysis of randomised controlled trials
2b	at least one randomised controlled trial
3a	at least one well-designed controlled study without randomisation
3b	at least one other type of well-designed quasi-experimental study
4	well –designed non-experimental descriptive studies (ie comparative / correlation and case studies)
5	expert committee reports or opinions and / or clinical experiences of respected authorities
6	recommended best practise based on the clinical experience of the guideline developer

This guideline has been registered with the trust. However, clinical guidelines are guidelines only. The interpretation and application of clinical guidelines will remain the responsibility of the individual clinician. If in doubt contact a senior colleague or expert. Caution is advised when using guidelines after the review date.

Document Control

Guideline Code	B15				
Guideline Title	Nursing Guideline for Epiprotect Dressing for children and young people.				
Current Document	Version Number	Date From	Date to	Author	EBP Council Meeting Date
Yes	1	28/5/2019	28/5/2020	Laura Bennett	16th September 2020

Standard Statement

Epiprotect has a nanostructure that makes it impossible for the dressing to permanently integrate with the wound. However, the cellulose sheet will absorb proteins from the healing wound, thereby adhering and providing a safe barrier to protect the wound as it undergoes healing. By covering the nerve endings on adherence to the wound, Epiprotect provides pain relief and its transparency ensures the wound can be easily monitored. Epiprotect will not generally adhere to full thickness wounds and these may still require surgical grafting.

In acute paediatric burns in Nottingham University Hospitals NHS Trust, the main indication for use of Epiprotect are partial thickness burns of 2% total body surface area (%TBSA) or greater. Secondary indications include partial thickness skin loss due to: trauma, non-septic systemic inflammatory illness, surgery.

Following application under general anaesthetic, the Epiprotect is covered in a secondary outer layer of dressings. The Epiprotect remains in place until the burns are fully healed and it can be peeled off, this is expected to occur within 14-21 days. During this time, the child or young person will be reviewed regularly and the outer dressings changed. This will be carried out by staff nurses within Nottingham's Children's Hospital and/or outreach nurses when an appropriate referral has been made.

Equipment

Clinell wipes
Dressings trolley
Apron
Non sterile Gloves
Liquid adhesive remover (e.g. Apeel)
Adhesive remover wipes (e.g. Apeel)
Non-sterile scissors
Clinical waste bin/bag
Warm soapy water in bowl
Towel
Soft gauze
Sterile dressing pack
1 pair of sterile gloves
Sterile scissors
Non-adherent dressing (e.g. NA Ultra)
Burns Gauze
Crepe bandage and/or elasticated tubular bandage (e.g. Comfifast)
Tape to secure dressing (e.g. Hypafix)

Procedure

Epiprotect is applied in theatre under a general anaesthetic. After application in theatre the wound dressings are not disturbed until 24-48 hours after application, unless the dressing becomes wet or it is not secure. Following the first check at 24-48 hours, the outer dressings will be changed a minimum of once weekly.

At each change of the outer dressings the burn wound is inspected for evidence of healing and for any complications that may arise.

Dressing Change

Action	Rationale
Explain the dressing change procedure to parents and the child, gain verbal consent.	To ensure understanding and co-operation of child and family.
Administer pain relief as prescribed prior to dressing change. (NUH MEDICINES POLICY: CODE OF PRACTICE ADMINISTRATION OF MEDICINES POLICY EXCLUDING IV ADMINISTRATION)	To ensure the child pain is minimised and comfortable prior to the dressing change.
Use distraction prior to and throughout the dressing change. Distraction can be provided by hospital play staff, students, nursing staff and/or relatives/carers	To ensure the child is settled in the environment before the dressing change, as distraction can ensure the patient is relaxed and can potentially make the dressing change less traumatic (Koller and Goldman, 2012).
Clean hands with soap and water and alcohol hand rub	To reduce the risk of contaminating dressing equipment or the wound site
Put on plastic apron Clean trolley with Clinell wipe Decontaminate hands with alcohol hand rub	To prevent contamination of uniform To provide clean surface for equipment
Open dressing pack on to trolley Remove packaging using non touch technique	Prevents contamination during removal from packaging An orderly aseptic field decreases the

Open the outer field without touching the inner surface and empty all sterile dressings and equipment onto the field without touching them. Consider all the dressing equipment which will come in contact with the wound as a key part and keep these protected at all times	chance of contaminating key parts All the dressing equipment comes into contact with wound Exposed key parts increase risk of contamination
Apply non-sterile gloves Use adhesive remover and non-sterile scissors to remove tape and bandages from the patient's skin Remove outer dressings from the Epiprotect and dispose of using clinical waste bag or bin	Using adhesive remover will minimise the child's distress as removing tape from skin can be painful. To avoid contamination from soiled dressing To expose the Epiprotect for inspection. As per Trust waste management procedures.
Inspect the patient's skin surrounding the Epiprotect.	To ensure there are no sores or rashes caused by irritation from the outer dressings, bandages or tape.
Wash the child's unaffected skin with warm, soapy water and dry with towel.	To clean the skin underneath the outer dressings that is not covered in Epiprotect.
Visually inspect the Epiprotect.	Ensure that the Epiprotect has adhered to the skin with all burnt skin covered. Check for signs of infection such as inflammation, malodour, offensive exudate, increased pain.
Clean hands, apply sterile gloves, Decontaminate hands with soap and water and alcohol hand rub	Hands may have become contaminated by removing soiled dressings
Trim the Epiprotect as required.	As re-epithelialisation of the skin occurs, the Epiprotect sheet will lose its adherence to the wound and will start to lie loosely over the skin surface. Any non-adherent Epiprotect should be removed by trimming with sterile scissors or peeling away as it dries.
Apply a non-stick dressing (for example NA Ultra) on top of the	To provide a layer of protection between the gauze and the Epiprotect, in case there

Epiprotect and then add a layer of burns gauze. If the wound is infected a silver dressing can be used.	is any exudate from the wound. DO NOT USE SILFLEX or MEPITEL as this will remove the Epiprotect. Silver dressings are anti-microbial.
Bandage or tape the dressing is place depending on where the wound is on the body.	To ensure the wound dressing is secure.
Plan a date to review wound.	Review wound as dictated by the wound and its healing. The wound must not be left longer than one week.
Document all dressings care on the wound care document.	To record an accurate description of wound healing.

Removing Epiprotect

Action	Rationale
Explain the dressing change procedure to parents and the child. Gain verbal consent.	To ensure understanding and cooperation of child and family.
Administer pain relief as prescribed prior to dressing removal.	To ensure the child is pain free and comfortable prior to commencing the Epiprotect removal.
Distract the patient prior to commencing the dressing change.	To ensure the child is settled in the environment before the Epiprotect removal, as distraction can ensure the patient is comfortable and will make the dressing change potentially not as traumatic (Koller and Goldman, 2012).
Remove the old dressing, using scissors. Use tape remover to remove old tape on the patient's skin.	Using tape remover will ensure the child is not as distressed as, removing tape from skin can be painful.
Inspect the patient's skin.	To ensure there are no sores or rashes from the dressings.
Remove the Epiprotect.	Epiprotect should lose its adherence after 21 days. If the Epiprotect remains stuck at 21

	days, then efforts to speed up and ease its removal should be taken. This involves application of petroleum oil, jelly products such as yellow soft paraffin or a neutral moisturiser such as Cetroban.
Once Epiprotect removed apply a moisturiser.	Apply a moisturiser 2-3 times a day to help soften the skin and combat skin dryness (NHS, 2017)
Remind parents and child of sun safety.	After a burn injury it takes the skin two years to fully regenerate and the skin is more susceptible to pigment change if it is exposed to the skin (NHS, 2017)
Refer patient to occupational therapist if a wound has taken more than 3 weeks to heal.	If a wound takes more than 3 weeks to heal it is more susceptible to scarring and will require scar management.
Document all dressings care on the wound care document.	To record an accurate description of wound healing.

References

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Koller, D. and Goldman, R.D (2012) Distraction techniques for children undergoing procedures: a critical review of pediatric research. Journal of Pediatric Nursing (27): 652-681.

National Health Service (NHS) (2017) Treatment: Scars [online]. Available at: https://www.nhs.uk/conditions/scars/treatment/ [Accessed 2nd December 2019].

Additional reading

The Role of Microbial Cellulose in Management of Partial Thickness Burn – Ahmed Mohamed Ahmed Aboelnaga. Assistant lecturer of Plastic Surgery Faculty of Medicine, Suez Canal University

2 Early experience with Eiratex – An Alternative to Biological dressing for superficial burns – Thorfinn J, Karlsson M, Elmasry M, Eygpt.Sjöberg F. – National Burn unit – Dept of Plastic Surgery, Hand Surgery and Burns University Hospital, Linköping, Sweden