Napkin care guidelines

This guideline applies to all clinical staff within WoS clinical services caring for neonates, children and young people who have, or who are at increased risk of Napkin associated dermatitis (NAD).

Introduction

Definition: napkin associated dermatitis (NAD) or nappy rash is a general term used to describe inflammatory changes to the skin under a nappy or incontinence pad. This is one of the most common skin complaints in infants (Longhi et al 1992).

Napkin skin care of the hospitalised child can pose many challenges for staff and carers, and if not managed appropriately can lead to pain and anxiety for the patient and carers. The aim of this guideline is to provide staff with guidance on how to prevent skin breaking down in this area and how to best manage it if it does, depending on the severity of the damage.

Causes/Risk Factors

During the interaction of urine and faeces under a nappy there is increased ammonia production which leads to an increase of skin pH in this area. The higher skin pH reduces the barrier function of the skin leaving it more susceptible to damage from the proteolytic and lipolytic enzymes present in faeces. Repeated and/or prolonged exposure to these irritants combined with increased hydration, maceration and friction to the skin under the nappy will likely result in NAD (Stamatas et al 2011, Buckingham & Berg 1986, 1&2).

The occurrence and severity can be influenced by; age of the infant, volume, consistency and frequency of stooling, diet, medication, underlying disease, existing skin conditions, poor hygiene etc (Dorko et al 2003, Longhi et al 1992).
**Napkin Care Guidance**

**Parent Education:** Parents/Carers must be educated on how to cleanse the skin and apply the barrier preparations (Gupta & Skinner 2004). They must be discouraged from bringing in and applying their own preparations if NAD is present.

**Good Practice:**
- Whenever possible bathe the infant or child once or twice daily, especially in moderate to severe cases (Atherton 2001).
- Use of emollients added to water to cleanse can provide further protective effects on the skin (Blume-Peytavi et al 2009).
- Encourage consistency in care between staff and parents/carers.
- Always change a nappy as soon after soiling as possible.
- Use of disposable gel core nappies is advisable in the hospital setting due to infection control aspects of the storage of soiled re-usable nappies.
- Once discharged re-usable nappies can be used but are not advised in cases of moderate to severe excoriation.

**Barrier Preparations:**
Barrier preparations are used to prevent faeces coming into contact with the skin, reduce humidity and maceration and minimise transepidermal water loss (Ratliff & Dixon, 2007, Wolf et al 2000).


For patients at higher risk or those with moderate to severe NAD, a paste containing a water impermeable substance should be used as these are considered to be better at protecting the underlying skin from moisture (Neild & Kamat 2007).

Barrier preparations used in this guideline include:
- Yellow soft paraffin (Vaseline)
- Non-sting barrier film spray
- Orabase paste + yellow soft paraffin (Vaseline) – half and half mixture
- Proshield cream
- Ilex paste

**Things to avoid:**
- Baby wipes of any kind for neonates (Ratliff & Dixon 2007).
- Unperfumed wipes can be used on intact skin during the prevention stage (Lavender et al 2012, Adam et al 2009, Ehretsmann et al 2001).
- Strongly perfumed soaps, moisturisers and wipes (Sarkar et al 2010).
- Re-usable nappies
- Stopping/changing a regime before 48 hours unless skin condition is deteriorating
Special Considerations

If a patient is experiencing any of the below please commence the moderate to severe regime. Whenever possible try to manage the cause of loose stools e.g. alter diet, limit/change antibiotics.

- Passing frequent loose/watery stools
- Receiving chemotherapy
- Has undergone/is preparing for transplant of any kind
- Is immuno-suppressed
- Reversal of ileostomy/colostomy

N.B. If the patient has an underlying skin condition please refer to Dermatology for advice.

Prevention/Normal Skin

Cleanse: non-perfumed baby wipes or water and soft cotton wipes and pat skin dry

Barrier preparation: none/yellow soft paraffin (Vaseline) applied very thinly.

Nappy/Pad: use a disposable gel core nappy and change frequently or as soon after soiling as possible.

N.B.: if parents have a regime that is safe and works for them this should not be changed unless the patient has any of the ‘Special Considerations’ detailed above or starts to develop nappy excoriation.

Mild excoriation

Description: erythema (redness) of skin, no broken areas.

Cleanse: irrigate using a 20ml syringe with warm water +/- an Emollient and pat intact skin dry.

Barrier preparation: Orabase paste mixed with Yellow soft paraffin (half and half mixture) at each nappy change (see notes below)

Nappy/Pad: use a disposable gel core nappy and change frequently or as soon after soiling as possible. If age/condition permits nurse exposed on an open nappy.

Notes: if there is deterioration in the skin condition please use moderate to severe regime. Orabase paste is easier to apply and remove when mixed with yellow soft paraffin. A rough estimation of a half and half mixture is sufficient. Care must be taken not to contaminate either tube of these preparations therefore it is advisable to mix them in a clean receptacle and discard this after 24 hours.

Moderate excoriation

Description: erythema (redness) of skin plus small broken areas.

Cleanse: irrigate using a 20ml syringe with warm water +/- and Emollient and pat intact skin dry.

Barrier preparation: apply a non-sting barrier spray 1-2 times daily then apply Orabase paste mixed with Yellow soft paraffin (half and half mixture) at each nappy change.

Nappy/Pad: use a disposable gel core nappy and change frequently or as soon after soiling as possible. If age/condition permits nurse exposed on an open nappy.

Notes: if there is deterioration in the skin condition please use severe regime.
**Severe excoriation**

**Description:** erythema (redness) of skin plus large broken areas or areas of ulceration (not pressure ulcers).

**Cleanse:** irrigate using a 20ml syringe with warm water +/- and Emollient and pat intact skin dry.

**Barrier preparation:** apply a non-sting barrier spray twice daily. Apply Proshield barrier cream or Ilex paste (as per instructions below) after each cleansing.

**Nappy/Pad:** use a disposable gel core nappy and change frequently or as soon after soiling as possible. If age/condition permits nurse exposed on an open nappy.

**Notes:** if there is no improvement in 48-72 hours or rapid deterioration please contact Tissue Viability Nurse/Stoma Nurse Specialist/Dermatology as appropriate.

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**Ilex paste**

- Cleanse skin prior to application of Ilex Paste, otherwise cleanse gently only to remove the Yellow Soft Paraffin layer.
- Apply Ilex paste sparingly to affected areas 2-4 times daily.
- Apply a thick layer of Yellow Sot Paraffin over the Ilex paste at each nappy change.
- Place a non-adherent wound contact layer dressing into any skin folds and over buttocks to prevent sticking.

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**Proshield Cream**

- Cleanse skin with water +/- an Emollient and pat intact skin dry
- Apply Proshield cream to the napkin area
- Proshield cream can be applied as often as necessary

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**Candidiasis**

**Description:** this is the most common complication associated with napkin excoriation. It can be described as a bright red rash with satellite lesions/pustules at margins. This rash may extend into groins and skin folds (Dorko et al 2003). This can occur along with excoriation and so may only be visible at the edges of broken areas of skin.

**Management:**

- DO NOT use a non-sting barrier preparation.
- Apply Clotrimazole 1% three times daily for up to 3 weeks even after symptoms have resolved (Hoegar et al 2010).
- Apply barrier preparation according to severity of excoriation.
- Consider oral/systemic antifungal treatments in severe cases/at risk patients.

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Bennet, Y. & Rodgers, A. (2009) A 3 year retrospective audit of nappy rash in all infant stoma reversal patients who had a stoma for >6months in Yorkhill Hospital. Unpublished data.