

The development of a pathway for neonates with severe nappy rash

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Introduction

Nappy rash (incontinence associated dermatitis) is a common skin disorder in infants and toddlers and is seen in approximately 25 percent of children wearing nappies ⁽¹⁾, with the majority of cases being mild to moderate ⁽²⁾. Nappy rash can occur at any time, the most common age is between 9-12 months ⁽²⁾.

Moisture from prolonged contact with a urine-soaked nappy can lead to maceration of the stratum corneum, resulting in a

reduction in the natural barrier function of the skin. Enzymes and proteases found in faeces can exacerbate problems associated with nappy rash.

The incidence of nappy rash rise when an infant is recovering from neonatal abstinence syndrome, as the increased movement of faecal matter through the gastrointestinal tract increases the activity of the proteases ⁽¹⁾.

Background

The application of a suitable barrier product and appropriate skin care regimes can prevent nappy rashes from occurring, and there are a wide range of products available aimed at protection and management.

Skin care products should not have the potential to cause more harm than good, and should be assessed according to the need and appropriateness for individual infants.

The ideal product works by adding a protective layer to the surface of the skin, and/or providing lipids, which can penetrate the stratum corneum, stimulating the effects of naturally

occurring lipids. These will protect the skin from irritants and microorganisms and prevent increased transepidermal water loss through the damaged areas, and decrease the permeability to irritants ^(1, 3).

Recently the Tissue Viability Team has had a high volume of referrals for nappy rash which have not responded to products currently available on formulary: 1st line products of choice are a long lasting barrier cream and an alcohol free, no sting barrier film or 2nd line an amorphous hydrogel (that is not actively promoted for use on neonates).

Method

After an extensive review of all skin protectant products available, it was agreed that an evaluation of PROSHIELD[®] Plus skin protectant should be undertaken to assess its effectiveness on neonates with severe nappy rash.

PROSHIELD Plus is clinically indicated for intact and injured skin, predominantly associated with incontinence for example: incontinence associated dermatitis/moisture lesions; and it is safe to use on babies and children.



Before the application of PROSHIELD Plus



First application



48 hours later



Final review - day 7

Case study

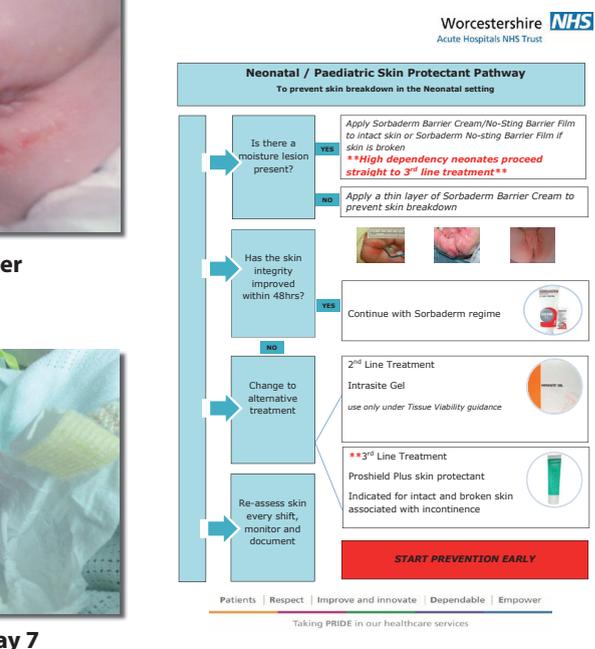
Baby A, was a three week old baby recovering from neonatal abstinence syndrome which gave her diarrhoea. Due to the severity of the diarrhoea she quickly developed an excoriated, bleeding bottom despite the nappy being left off and both 1st and 2nd line treatments being used. Baby A was showing signs of distress which was put down to the pain she must have been experiencing and it was decided to refer to the Tissue Viability Team for advice on how to manage the nappy rash. Following consultation with the Tissue Viability Team it was agreed to evaluate PROSHIELD Plus.

Results

PROSHIELD Plus skin protectant was applied liberally and frequently to Baby A's bottom (pictures were taken daily) and within three days Baby A's bottom had greatly improved. One week later, her bottom had fully restored, despite the ongoing incontinence.

Conclusion

Subsequent use of PROSHIELD Plus on neonates with severe nappy rash has continued to produce positive results and as a result of the success of the evaluation; the pathway included has been developed and is awaiting final ratification and will be available shortly for use across the Trust. The pathway will provide clear instructions for the clinician to follow, as to which skin protectant to apply. Aiming to ultimately reduce the number of referrals to the Tissue Viability Team, and most importantly, reduce the number of neonates with nappy rash.



References

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- Atherton D (2004) A review of the pathophysiology, prevention and treatment of irritant diaper dermatitis. *Curr Med Res Opin* 20 (5): 645-9