

Delivering effective health economics for patient at risk of and living with Moisture Associated Skin Damage (MASD), including Incontinence Associated Dermatitis (IAD).

Introduction

Health economics relates to improving the health of the population through the efficient use of resources (NICE, 2012). Effective use of resources is fundamental to enable health and social care providers to deliver and sustain high quality services for people (CQC, 2015). NICE 2015 highlighted how incorporating good quality health economic evidence into clinical guidelines/pathways can help towards making the process more consistent. In 2015/2016 the Skin Integrity Team (known at this time as the Tissue Viability Team) were keen to explore the incidence of Category 2 Pressure Ulcers in the sacral area and Moisture Related Skin Damage (MASD) including incontinence associated dermatitis (IAD).

Pressure Ulcer

A pressure ulcer is defined as localised damage to the skin and underlying soft tissue usually over a bony prominence or related to a medical or other device (NPUAP, 2016). A category 2 pressure ulcer is defined as partial thickness loss of the dermis, presenting as a shallow open ulcer (NHS Improvement, 2019).

Moisture-associated skin damage (MASD)

The effects of excessive moisture on the skin is well evidenced as exposure softens, swells and damages the skin. Traditionally moisture was considered as being a problem relating specifically to continence. However it is now recognised as a problem encountered in many different patient groups. Moisture-associated skin damage (MASD) was introduced to describe the spectrum of damage that occurs as a result of excessive exposure to moisture on a patient’s skin from either perspiration, urine, faeces or wound exudate (Grey et al, 2011).

Incontinence-associated dermatitis (IAD)

Where the skin damage is caused by urine and/or faeces it is known as Incontinence-associated dermatitis (IAD). IAD is occurs from a chemical irritation when urine or faeces comes into contact with the skin. Releasing ammonia and/or enzymes that disrupt the acid mantle of the skin, resulting in skin damage (Rees and Pagnamenta, 2009).

Skin care regime

The view was that the Trust did not have a robust skin care regime. To quantify the scale of the problem audit and analysis was undertaken. As anticipated the audit confirmed that there was no structured approach for the prevention and management of Category 2 Pressure Ulcers in the sacral area, MASD or IAD within the Trust. A wide range of products were in use for both cleansing and barrier protection and that the stock levels were inconsistent. This confirmed that the Trust had a chaotic approach to the way in which the staff were undertaking skin cleansing and preventative skin care.

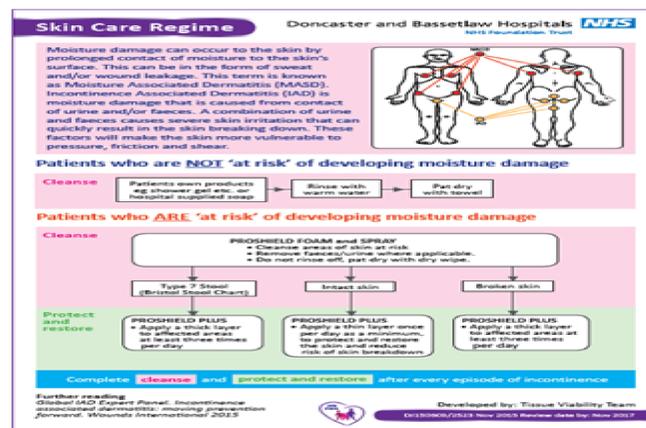
On reviewing the Best Practice Principles document, Incontinence Associated Dermatitis: Moving Prevention Forward” (2015) it was identified that a structured skin care regime was required to assist with the reduction in the number of incidences of MASD and IAD. The Skin Integrity Team reviewed several products in order to identify their suitability in line with the evidence base in relation to preventative skin care. Proshield Foam and Spray Cleanser and Proshield Plus skin protectant were chosen.

Method

A clinical pathway was developed to introduce the new Skin Care Regime and associated products has allowed the Trust to streamline its product usage for the prevention and management of MASD and IAD. A skin care regime was developed (Figure A) and launched with in an area of the Trust to establish and quantify the effects over a 3 month period. The incidence of hospital acquired category 2 pressure ulcers, MASD and IAD was 42 pre implementation and 31 post implementation.

Following the success of the evaluation the Skin Care Regime Pathway was launched Trust wide in 2017 and formed part of the Pressure Ulcer Prevention and Management education modules delivered by the Skin Integrity Team. Despite the improvements in the reduction of skin damage it was identified that there was an overuse of the resources which was negatively effecting the health economics and cost effectiveness of the products. Therefore collaborative work with the company that develop the product was initiated and additional education and training support was provided with the aim on managing the resource more efficiently which meeting the requirements of the Skin Care Regime Pathway.

Figure A



Results

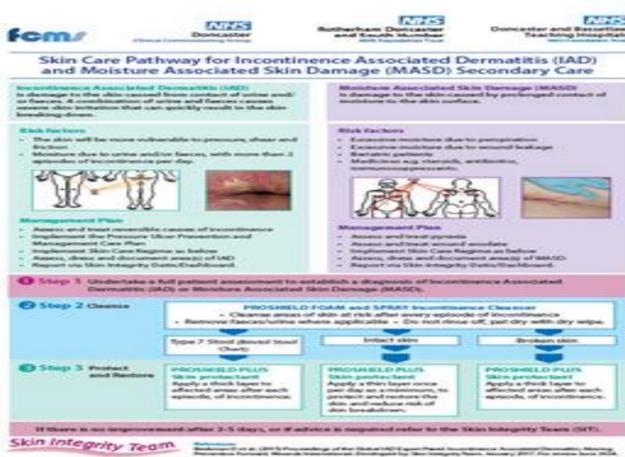
Evaluation Implementation Results

Prior to the implementation of the pathway in the chosen area in the Trust there was 42 patients who developed a category 2 pressure ulcers and/or MASD/IAD. During the three month evaluation this figure reduced by 26% (n = 31 patients). It was concluded the introduction of the new Skin Care Regime and associated products has allowed a streamline approach to be taken for the process and product usage for the prevention and management of category 2 pressure ulcer in the sacral area, MASD and IAD. This had a positive impact on the patient experience and also had an effect on the nursing staff as they gave positive feedback regarding to the ease of use of the new product range.

Implementation of a Skin care regime Pathway

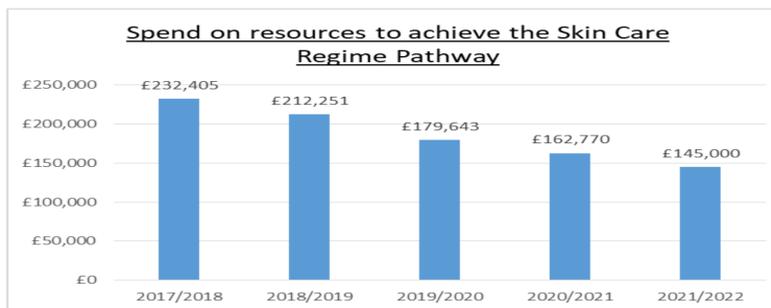
Collaborative work with the company that develop the product was initiated and additional education and training support was provided with the aim on managing the resource more efficiently which meeting the requirements of the Skin Care Regime Pathway. Within 2021/2022 the Pathway was updated (Figure B) to ensure the information reflected current national recommendations and re launched and implemented across the Trust whilst the education via face to face modules, e learning, social media, ward based support and teaching materials continued

Figure B

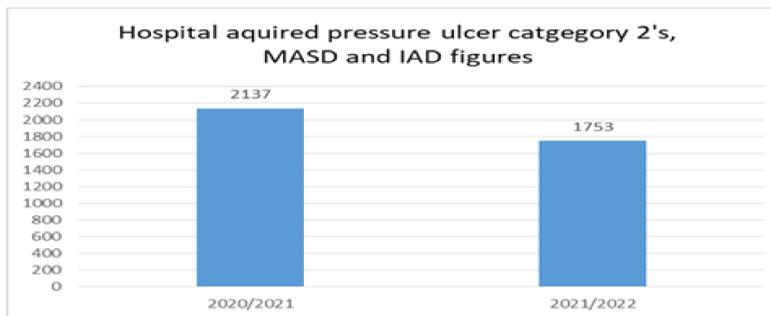


Over a 5 year period the spend on resources was reduce by 38% saving ££86,635 (Graph 1) and the hospital acquired Category 2 pressure ulcers, MASD and IAD figures from for the last 12 months have reduced by 18% (n=383) (Graph 2).

Graph 1



Graph 2



Discussion

Best Practice Principles document, Incontinence Associated Dermatitis: Moving Prevention Forward” (2015) it was identified that a structured skin care regime was required to assist with the reduction in the number of incidences of MASD and IAD. A clear skin care regime is crucial and must include a product that includes the concept of Cleanse, Protect and Restore. In addition to this it was identified that category 2 pressure ulcer to the sacrum of incontinent patients would also be included due to evidence suggesting that pressure ulcer development is closely related the presence of MASD and/or IAD due to skin tolerance problems that may lead to pressure ulceration development (Gefen, 2011; Yusuf et al., 2013).

The main advantage to the Proshield product range is that it comprises of a simple two-step process and has reliable evidence basis which is in line with the best practice principles.

- Step 1 - Cleanse - Proshield Foam and Spray Key Benefits
- Gentle - a gentle, pH balanced no-rinse moisturising cleanser designed to leave the skin supple and hydrated
- Thorough cleansing - to help eliminate odour and break down dried stool
- Flexible - indicated for intact and injured skin associated with incontinence
- Wide range of indications Proshield Foam and Spray is also indicated for removal of antiseptic solutions, hard to remove debris and skin barriers such as Plus.

Step 2 - Protect and Restore - Proshield Plus Key Benefits

- Effective barrier - against skin irritation
- Preventative - suitable for daily use as a preventative measure to help protect healthy intact skin which is subject to the effects of incontinence
- Protective - easy to apply to injured skin associated with incontinence and adheres well to moist wounds. Provides protection from diarrhoea and incontinence
- Moisturising - indicated to protect and moisturise clinically dry skin.

Clinical pathway implementation aligns clinical practice with guideline recommendations in order to provide high-quality care within an institution. They serve as useful tools to reduce variations in clinical practice, thereby maximising patient outcomes and clinical efficiency. Evidence suggests that they have the capacity to promote safe, evidence-based care by providing locally oriented recommendations for the management of a specific condition, whilst contributing to the reduction of complications and treatment errors (Kiyama et al., 2003).

Despite the improvements in the reduction of skin damage it was identified that there was an overuse of the resources which was negatively effecting the health economics and cost effectiveness of the products. Therefore collaborative work with the company that develop the product was initiated and additional education and training support was provided with the aim on managing the resource more efficiently which meeting the requirements of the Skin Care Regime Pathway. Following this over a 5 year period the spend on resources was reduce by 38% saving ££86,635 and a reduction in hospital acquired Category 2’s, MASD and IAD from 2020/2021 (Table 2 and Figure D) of 18% (n=383) has been achieved.

Conclusion

The results from implementing collaborative work to provide additional education and training support around the implementation and compliance of a clinical pathway developed from national guidance has resulted in improved health economics ensuring effective use of resources to deliver and sustain high a quality services - a 5 year spend on resources reduction of 38%, saving ££86,635, and a reduction in hospital acquired Category 2’s, MASD and IAD from 2020/2021 of 18% (n=383).

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Statement of Interest

This piece of work includes products available from Smith and Nephew, however the data, content and views are by the authors and not related to the company.