

EVALUATION OF A POLYMERIC MEMBRANE DRESSING IN THE MANAGEMENT OF RADIOTHERAPY INDUCED SKIN REACTIONS IN HEAD AND NECK CANCER PATIENTS

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Aim:

To evaluate if; Polymeric membrane dressing was effective in the management of patients presenting with radiotherapy induced skin damage.

Method:

A bespoke evaluation captured information on the patients' age, gender, radiotherapy dosage, nutritional status, cancer type and location, RTOG rating, wound pain score and pain at dressing change. Patients were provided with a free text diary to log their pain using a numerical and Wong and Baker Face scale. Pain medication and sleep patterns. Each week, the RTOG rating, wound size, location and description, pain score of wound, pain associated with dressing change and dressing wear time was completed by the clinician, patients or carers. This continued for a maximum of 4 weeks.

Results:

A total of 20 patients, 17 men and 3 women, with a mean age of 56.8 all had a primary diagnosis of head and neck cancer. 65% of patients had RTOG scale of 2, 25% RTOG rating 2.5. A significant finding in this study included the decline in wound pain scores between week 1-3. By week 4, 15/20 of patients skin had healed. Patient diaries provided valuable data with common themes including:

- Increased sleeping hours
- Dramatic reduction in pain during wear time of the dressing
- Increased healing rates when compared to the standard treatment
- Patients and carers were able to change the dressings
- Reduction in pain medication

Discussion:

The use of patient diaries gave a unique insight into patients with skin damage. The use of advanced wound dressing improved quality of life in these vulnerable patients.





RTOG Grade		Management	Rationale
0 (no change to skin)		Continue with own skin care regime and use of patients own non perfumed, easily absorbed moisturiser. Past practice has been aqueous cream but evidence has shown this can be any non perfumed, easily absorbed cream. Follow general Skin care guidelines. Consider the use of a barrier film if indicated to delay the onset of reactions.	Promote hydrated skin and maintain integrity. Assess Weekly.
1 (Faint/dull erythema)		Continue with skin care regime and use of moisturiser. Consider appropriate analgesia for pain. Consider the use of anti-histamine to aid with itching.	Promote hydrated skin and patient comfort. Management of itch and pain as required. Assess weekly in clinic
2a (bright erythema/dry desquamation/sore, itchy skin)		Increase application of creams as required. Consider commencement of dressings, such as Hydrogels, - gels and sheets, foams.	Promote hydrated skin and patient comfort. Control pain from skin reaction. Management of itch. Assess weekly
2b (Patchy moist desquamation. Yellow exudate/pain)		Continue moisturiser on unbroken skin. Swab as necessary to check for local infection – consider use of systemic antibiotics if infection confirmed. Apply appropriate dressing to treatment area (Hydrogels, Polymem, foams) Dressing use will be decided by the specialist team depending on the treatment field. Continued use of systemic analgesia. Refer to district nurse (DN) as necessary, especially if patient unable to manage self changes.	To promote patient comfort. Reduce further trauma and infection. Reduce pain, soreness and discomfort for the patient. Assess on a more frequent basis. To be decided by the team.
3 (Confluent Moist desquamation, oedema, soreness)		Continue as RTOG 2b with use of dressings. Swab as necessary to check for local infection. Ensure patient self management with dressings, refer to DN as necessary.	Continued patient comfort as much as possible. Reduce the risk of added complications.
4 (Ulceration, bleeding, necrosis)		Rarely seen. Management should be considered on an individual basis and discussed with the Medical team on all occasions.	

Fig 1. Management of skin reactions and use of dressings taken from Mount Vernon Cancer Centre skin care guidelines for during and after radiotherapy treatment. Audrey Scott, Macmillan Head and Neck CNS on behalf of Mount Vernon Cancer Centre Radiotherapy Skin Care Group. 2013 p9-10.



The Polymeric Membrane dressing in-situ

Patient Comments:

Patient 11, day 3 "When the dressing is removed within a short space of time the burn dries and hurts like hell, when the dressing is applied the relief is almost instant and the pain drops to 0".

Patient 19, day 5 "I would highly recommend this dressing, when wearing for more than one day, used a small squirt of saline (2 mls) this cooled the wound right down immediately- great tip".

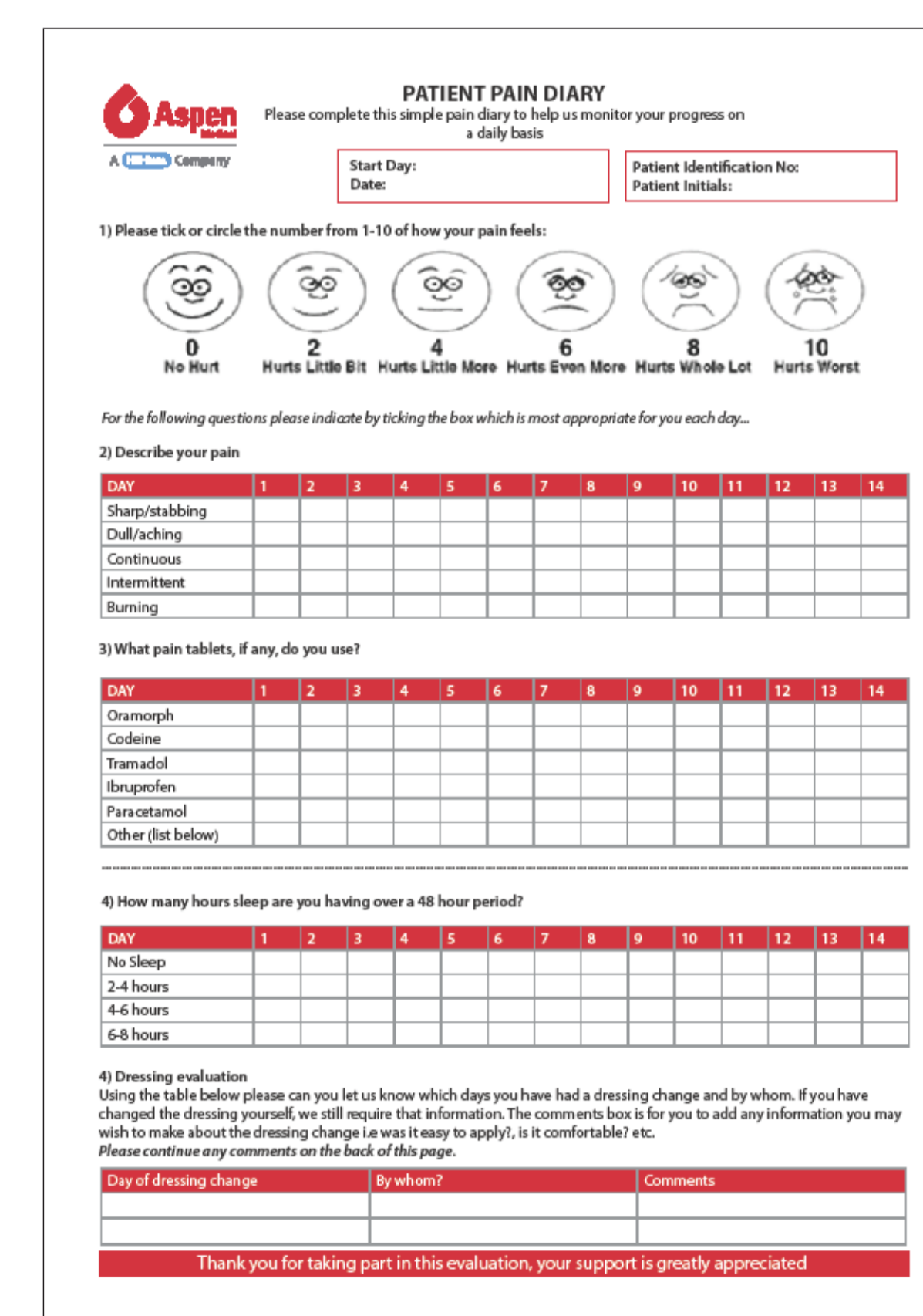


Fig 2. Pain, sleep and analgesic diaries kept by patients 1-4 weeks

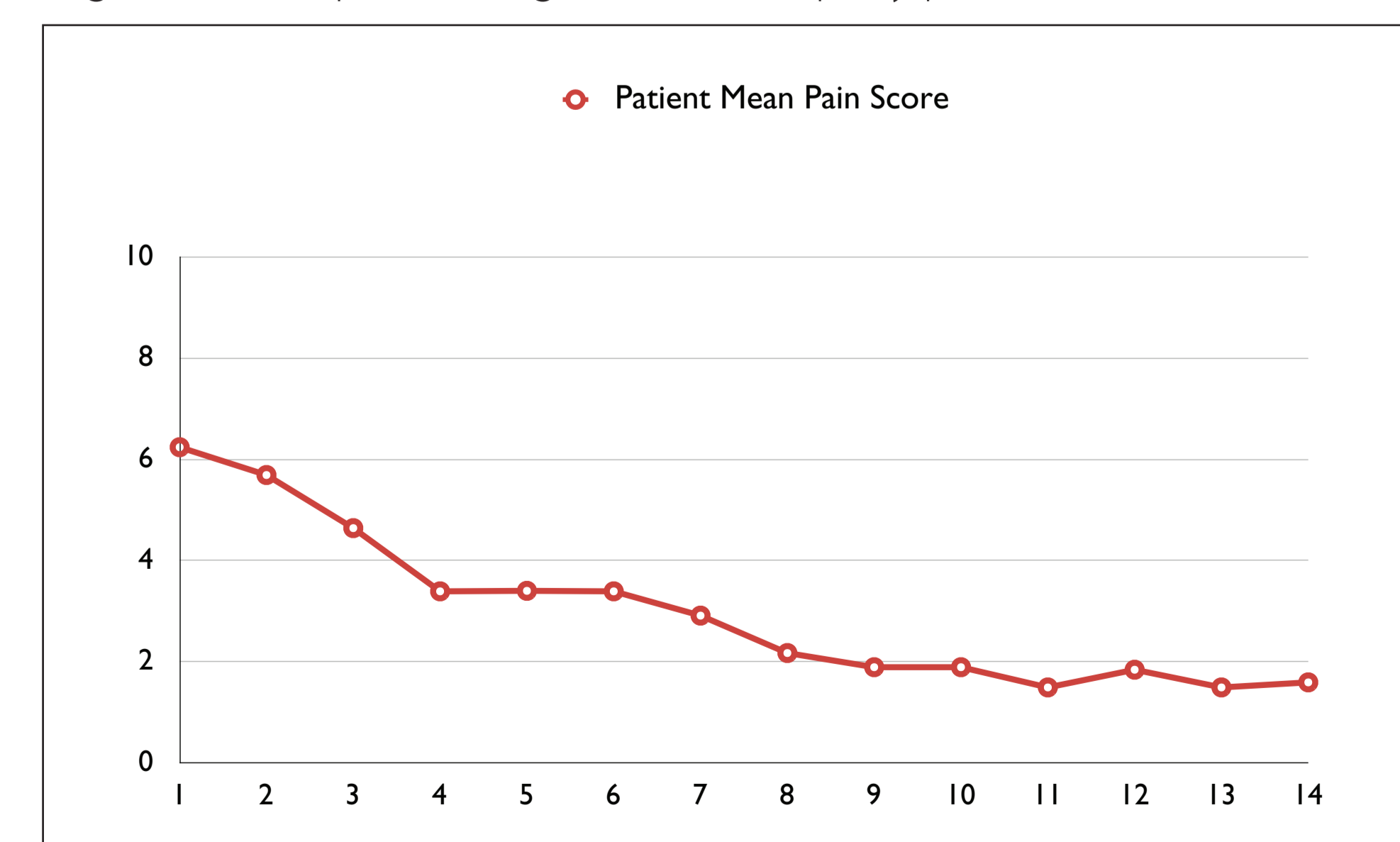


Fig 3. Patient mean pain score over 14 days