RADIATION INDUCED SKIN REACTIONS

Is Strata XRT gel more effective in the prevention and management of Radiation induced skin reactions (RISR) than standard care?

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OBJECTIVE

Acute radiation-induced skin reactions (RISR) are an inevitable consequence of Radiation Therapy (RT) for many cancer patients. RISR are a source of significant pain and psychological distress. The compromised skin integrity associated with RISR increases the risk of infection, resulting in potential treatment breaks which can compromise patient outcomes. The objective of the product trial was to assess whether Strata XRT gel, in delaying and managing RISR. Strata XRT product trial was to assess whether Strata XRT gel is more effective in the prevention and management of RISR than standard care.

BACKGROUND

Radiotherapy damages basal cells, and RISR occur when the basal layer is unable to produce enough new cells to compensate for the loss of damaged cells at the skin’s surface. MNCCI uses the CTCAE grading scale for assessment of RISR.

CTCAE grading V3.0 - Acute Skin Radiotherapy Toxicity Scores (EVIC, October 2016).

<table>
<thead>
<tr>
<th>Grade</th>
<th>Description</th>
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<tbody>
<tr>
<td>0</td>
<td>None</td>
</tr>
<tr>
<td>1</td>
<td>Pain, erythema or dry desquamation</td>
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<tr>
<td>2</td>
<td>Moderate to brisk erythema, patchy moist desquamation, mostly confined to skin folds and creases; moderate oedema</td>
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<tr>
<td>3</td>
<td>Moist desquamation other than skin folds and creases, bleeding induced by minor trauma or abrasion</td>
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<tr>
<td>4</td>
<td>Skin necrosis of full thicknessermal necrosis, spontaneous bleeding from involved site</td>
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</tbody>
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CHALLENGES AND PERSPECTIVES

- 3 Moist desquamation other than skin folds and creases, bleeding induced by minor trauma or abrasion

PRODUCT TRIAL PROCESS

- Key stakeholders consulted
- Multidisciplinary
- Radiation Therapy nurses
- Radiation Oncologists
- Radiation Therapists
- Product committee requirements
- Education from Shalaxyx representative
- Procedure documents
- Photograph of field
- Patient information brochure provided at planning phase
- Data collection tool created
- MIN/NAP
- Treatment field
- Patient consent
- Radiation dose
- Duration
- CTCAE grading
- Photograph of field
- Date of trial patient survey
- Additional issues
- Staff in service, support and education pre, during and post.

RESULTS

- Comparison to similar cohort of patients using standard care from MOSAIC eMR
- Delay in onset of RISR average 7-10 days
- No significant improvement in perianal group but
- Comparison to similar cohort of patients using standard care from MOSAIC eMR
- Reduction in the number of community nurse referrals both during and post radiotherapy

CHALLENGES AND PERSPECTIVES

- Staff
- Ease of use for staff and patients
- Noticeable delay in onset of RISR with most groups
- RISR grade 2/most wound healing principles used for 3-4 days to add moisture and lift any crust, then patients were able to switch back to Strata XRT gel
- Gel did not appear to have an impact on the perianal treatment field - difficult to apply due to the nature of the area (nursing staff prescribed to use) patients found most wound healing better for pain relief
- Data collection difficult to due to short timespan, and treatment field/dose not identical within patient groups

RESULTS

Results were collated and a comparison made by Bradhurst and Donnelly (Southern Cross University, 2017) to a similar cohort of patients from eMR Mosaic who used standard care. Results were inconclusive, largely due to the data collected during the product trial, cohort number, and inconsistencies in areas such as patient compliance, objectivity of grading an RISR, and dose and field discrepancies. However, staff and patient feedback, and the cost analysis was presented to the MNCLHD product committee, who have endorsed the product for use within MNCCI Coffs Harbour. Patients deemed ‘high risk’ of skin reaction are now discussed during the MNCCI weekly Radiation MDT, and offered the gel to use.