

Can Flamigel reduce radiation induced skin reactions?

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Why this audit is necessary?

Radiation-induced skin reactions affect more than comfort; they influence experience, consistency of care and resource use.



Patient Impact – Symptom burden, confidence and daily function.



Continuity of Care – A consistent product pathway reduces variation



Resource and Cost - Skin toxicity drives review time and consumables.

> [Semin Oncol Nurs](#). 2011 May;27(2):e1-17. doi: 10.1016/j.soncn.2011.02.009.

Evidence-based skin care management in radiation therapy: clinical update

Maurene McQuestion ¹

Affiliations + expand

PMID: 21514477 DOI: [10.1016/j.soncn.2011.02.009](#)

Abstract

Objectives: To present a clinical update on the available evidence for the prevention and management of radiation skin reactions (radiodermatitis).

Data sources: Research studies, review articles, and clinical practice guidelines.

Conclusion: In the past 4 years since the publication of the original article, there has been minimal change in the evidence available to guide decisions and practice in the management of radiation skin reactions. There continues to be insufficient evidence in the literature to recommend a variety of topical or oral agents in the prevention of skin reactions. There have been some recent studies that have impacted decision making and recommendations in the management of skin reactions. Radiation treatment techniques are the most promising intervention in reducing the degree of skin reaction. The use of calendula cream may reduce the incidence of grade 2 or 3 reactions in women with breast cancer. The controversy related to the use of deodorant in the treatment field unfortunately continues in clinical settings, but deodorant use as part of routine hygiene is now recommended for practice.

- Around 95% of patients receiving radiotherapy experience a skin reaction
- Current national guidelines call for further research into prophylactic products for the reduction in radiation induced skin reactions

Figure 1- Extract of Evidence based skin care management
External Source

RTOG Scoring System

				
Grade 0 No visible change to the skin	Grade 1 Faint or dull erythema Mild tightness of the skin, mild itching may occur	Grade 2a Tender or bright erythema Skin may feel tighter and/or sore	Grade 2b Patchy moist desquamation Areas where skin has broken down can be seen. Exudate might be visible Soreness and oedema are evident	Grade 3 Confluent moist desquamation More pronounced areas of broken skin Exudate is visible Soreness and oedema are evident

Figure 2- Radiation Therapy Oncology Group (RTOG) Acute Radiation Dermatitis Grading Criteria

External Source

Audit aim

Determine whether Flamigel changes the severity and timing of skin toxicity in head and neck radiotherapy patients.

1. **Flamigel Use** - Assess whether patients using Flamigel experienced a more or less severe skin reaction compared with those following their own skin-care routine.
2. **Weekly RTOG** - Record and compare weekly RTOG skin-toxicity scores throughout treatment for both approaches.
3. **Toxicity Patterns** - Identify when reactions first appeared, how they progressed and when the highest severity occurred.

Initial retrospective data collection

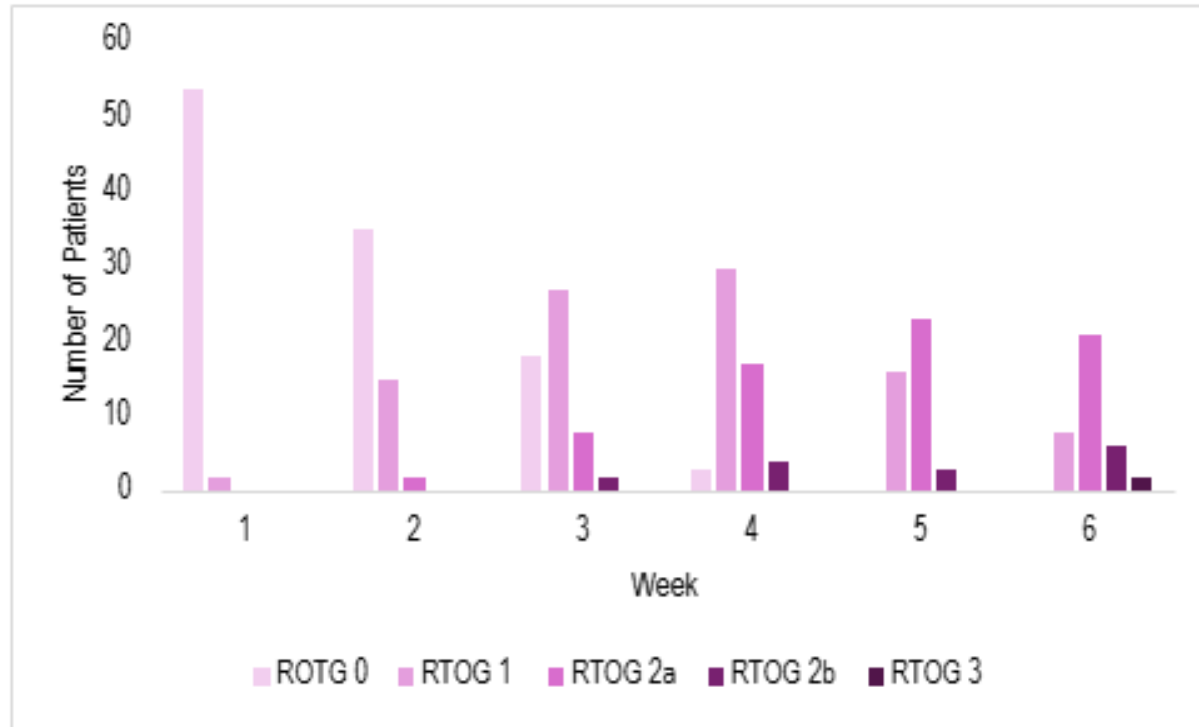


Figure 3- Reported RTOG Scores Per Week For Patients Given Flamigel

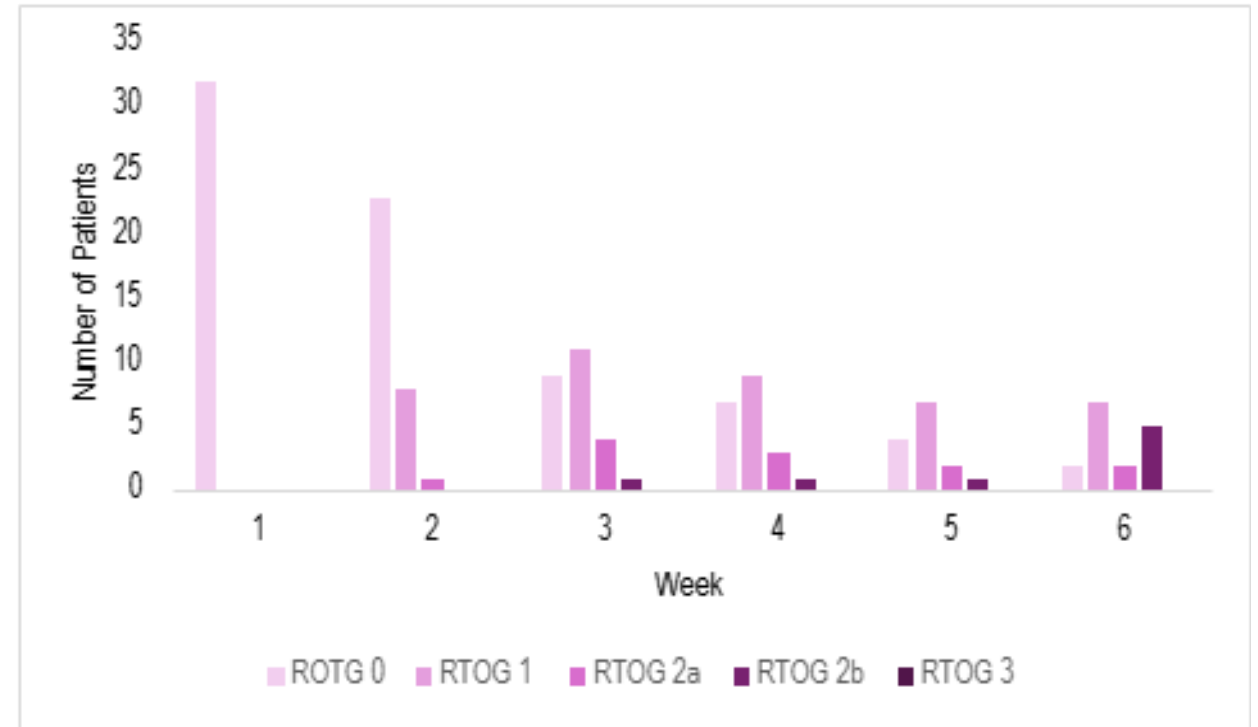


Figure 4- Reported RTOG Scores Per Week For Patients Not Given Flamigel

Prospective data collection

Oct-Dec 2025

97

Patients identified

Head & neck radiotherapy



23

Excluded

22 palliative • 1 telephone review



74

Included

Final audit sample

AUDIT GROUPS

48

Flamigel arm

Supplied from day 1 with instructions

26

Own moisturiser arm

Usual skin care per SCoR guidance

Data Collection:

- Baseline + weekly skin assessments
- Skin reactions scored using the RTOG scoring system

Prospective Data

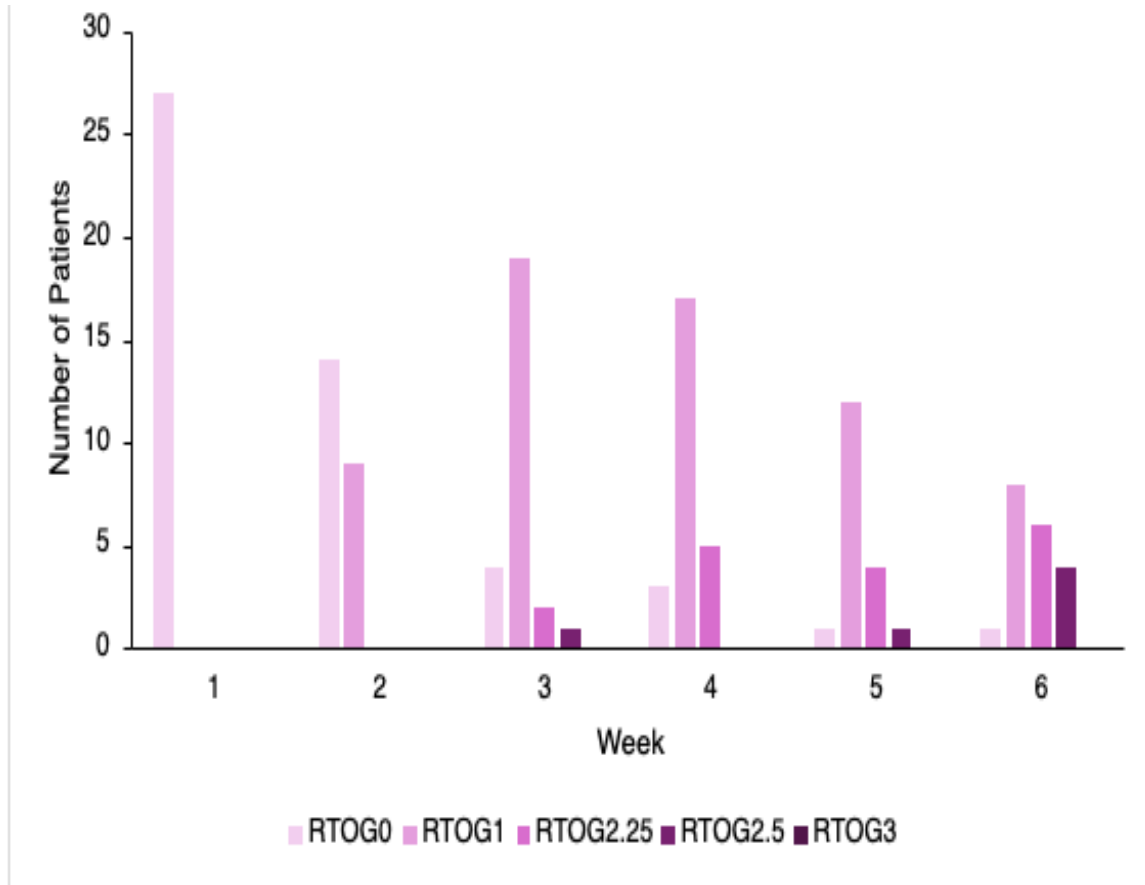


Figure 5 - Reported RTOG Scores Per Week For Patients Not Given Flamigel

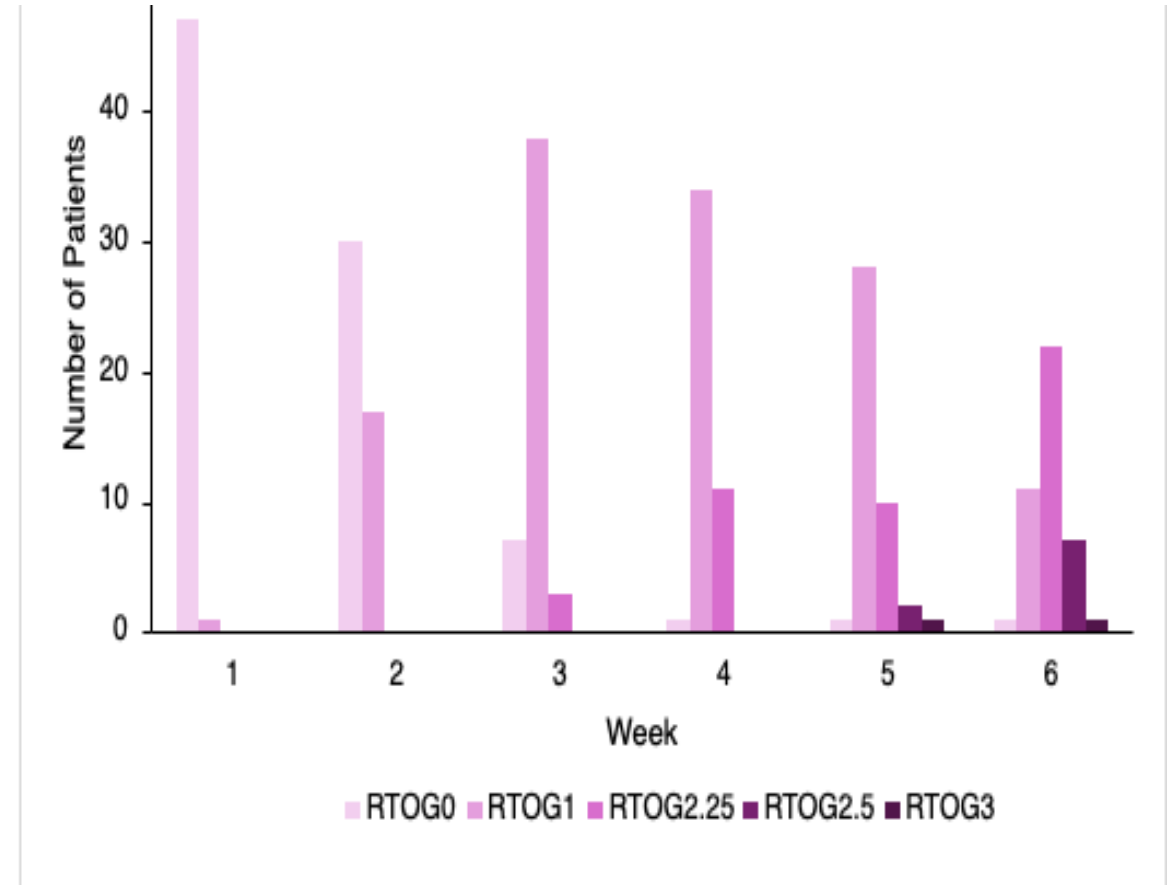


Figure 6 – Reported RTOG Scores Per Week For Patients Given Flamigel

Skin Reaction Outcomes

No significant difference in RISR severity between both cohorts

1

RTOG 3 Reaction

Week 5 in the Flamigel Cohort

8 vs 4

≥ RTOG 2b

Flamigel vs Non Flamigel

Same

Weekly Median RTOG

Both Cohorts

Mean RTOG both cohorts:

0

W1

0

W2

1

W3

1

W4

1

W5

2a

W6

Conclusion

Flamigel $\approx$ SCoR Guided Skincare

Limitations:

- Unequal Cohorts
- Inter-Observer Variation
- Interpretation Bias

Implications:

- Comparable Effectiveness

What's Next?

- Local Cost effectiveness evaluation
- Further audits across other treatment sites

Further evaluation is warranted before wider adoption

References

- Figure 1 – McQuestion M. Evidence-based skin care management in radiation therapy: clinical update. Semin Oncol Nurs 2011;27(2):e1e17
- Figure 2 - SCoR. Dermatitis guidelines for radiotherapy healthcare professionals. Society of Radiographers; 2020. <https://www.sor.org>.