

Cancer Services - Radiation Oncology Interdisciplinary Clinical Guideline

Clinical Guideline: Acute Skin Reaction

Acute Skin Reaction

Acute skin reaction is one of the common toxicities associated with radiotherapy (RT) as the skin is very sensitive to RT. Acute is defined as occurring during radiotherapy or up to six (6) months following radiotherapy.

Grading/Assessment of Symptom

The severity of a radiation skin reaction is graded on a continuum ranging from erythema, dry desquamation, and moist desquamation to necrosis. The National Cancer Institute (NCI) Common Terminology Criteria for Adverse Events (CTCAE) Version 3.0 is used to assign a numerical value to the degree of toxicity (table 1). Assessment should include treatment field entry and exit sites.

0	1	2	3	4
None	Faint erythema or (asymptomatic) dry desquamation	Moderate to brisk erythema; patchy moist desquamation, mostly confined to skin folds and creases; moderate edema (Pruritis)	Moist desquamation other than skin folds and creases; bleeding induced by minor abrasions	Skin necrosis or ulceration of full thickness dermis; spontaneous bleeding from involved site

Table 1. NCI CTCAE Version 3.0 for Radiation Acute Skin Reaction

Breast Site Guidelines:

The initial acute skin reaction usually starts some time after the first week of treatment and may continue for a few weeks after the completion of treatment

Prevention	<ul style="list-style-type: none"> • Skin washing should NOT be restricted in patients receiving radiation therapy. Recommended washing practices include gentle washing with water alone or gentle washing with mild soap and water. • Limiting personal hygiene practices is not recommended as this may lead to psychosocial distress for the patient. • Baby powder with cornstarch (BPCS) or cornstarch alone should be applied to all skin within the radiated area (breast or chest wall and axilla (anterior and posterior shoulder if neck nodes are radiated)) 3 times a day. • Patients should be advised to wear loose clothing and pat skin dry after bathing to minimize friction and epithelial loss.
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Sign or symptom	Faint erythema or asymptomatic Dry Desquamation	Moderate Erythema Or Pruritis	Moist Desquamation	Infection
Management	<ul style="list-style-type: none"> • BPCS or Cornstarch 	<ul style="list-style-type: none"> • Topical steroid 	<ul style="list-style-type: none"> • Topical steroid • Buro-Sol soaks • for severe reactions, adaptic or other similar dressings may be used • Avoid dry dressings and tape 	<ul style="list-style-type: none"> • Culture • Buro-Sol soaks are continued • *Topical antibiotic • Systemic antibiotic – occasionally prescribed
Practice (s)		Steroid Ointment or cream 2-3 times daily Eg. – 1% hydrocortisone or 2% betnovate	<ul style="list-style-type: none"> • Buro-Sol – 3-4 times daily • Increase Topical steroid to 3-4 times daily 	<ul style="list-style-type: none"> • Flamazine (Silver Sulfadiazine) • Baciguent (Bacitracin) • Polysporin or Fucidin (if allergy to sulpha)
Rationale	<ul style="list-style-type: none"> • Prevention of progressive skin reaction 	<ul style="list-style-type: none"> • To reduce itching, inflammation and irritation 	<ul style="list-style-type: none"> • To reduce discomfort and inflammation and prevent infection 	

Patient Education	<ul style="list-style-type: none"> • Refer to generic “Patient Information” sheet
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Approved by the Cancer Centre of Southeastern Ontario Breast Site Group 06.02.27

References:

- Cancer Care Ontario. (2005). Practice Guideline Report #13-7. The prevention and management of acute skin reactions related to radiation therapy. (Bolderston A., Lloyd, N. S., Wong, R. K. S., Holden, L., Robb Blenderman, L., et al.).
- Oncology Nursing Society. (2005). Radiation Oncology Nursing Practice and Education. ONS Publishing, Pittsburg, PA.

