

Care of Radiation Skin Reactions



BC Cancer Agency

CARE & RESEARCH

An agency of the Provincial Health Services Authority

Table of Contents

Care of Radiation Skin Reactions
BC Cancer Agency October 2000
Revised January 2002 February 2006

If you require further information, please contact one of the British Columbia Cancer Agency clinics listed below and request to speak to the triage nursing line.

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SECTION ONE	<i>General Information</i>	4
	Purpose	4
	Target Use of Document	4
	Disclaimer	4
	Goals	5
	Principles	5
SECTION TWO	<i>Erythema</i>	6
SECTION THREE	<i>Dry Desquamation</i>	11
SECTION FOUR	<i>Moist Desquamation</i>	15
SECTION FIVE	<i>Potential Post Treatment Skin Reactions</i>	
	1. Late Reactions	19
	2. Recall Phenomenon	21
SECTION SIX	<i>Suggested Treatment Procedures</i>	
	1. Application of Topical Products	25
	2. Normal Saline Compresses	26
	3. Sitz Bath	27
	4. Silver Sulfadiazine Cream (FLAMAZINE®) Application	28
	5. Hydrogel	29
	6. Hydrocolloid Dressing Application	30
SECTION SEVEN	<i>References</i>	31
SECTION EIGHT	<i>Additional Sources</i>	32
SECTION NINE	<i>Working Group Membership</i>	33

General Information

Purpose

The purpose of this document is to provide a consistent framework for decision-making in the care of radiation skin reactions. An interdisciplinary group prepared these guidelines with representation from the four centres within the British Columbia Cancer Agency (BCCA).

Presently in the literature there is inadequate evidence to recommend specific topical agents in the prevention or management of radiation skin reactions. Recommendations in this document are based on available literature, clinical expertise, theory and knowledge about moist wound healing.

Definition

Radiation skin reactions are a common side effect of radical ionizing radiation treatment. Stem cells in the skin's basal layer are particularly sensitive to radiation and subsequently become less able to divide and repair as treatment progresses. Radiation repeatedly interrupts the repopulation of the skin's cells, weakening the integrity of the skin within the treatment field.

While some patients may not experience skin changes, more commonly the reaction progresses from erythema to dry desquamation to moist desquamation and rarely to ulceration. Necrosis is rarely seen with current technology and treatment delivery. Subjectively, patients may complain of tenderness, discomfort, pain, or burning in the treated skin. Some patients note a change in activities of daily living as a consequence of the reaction.¹

Target Use of Document

The intent of this document is to provide common guidelines for the care of Radiation Skin Reactions.

It does NOT apply to skin cancers and their treatment.

For information on skin cancer go to www.bccancer.bc.ca/PPI/TypesofCancer/SkinNonMelanoma

The Guidelines are directed to health professionals who are providing care for individuals receiving radiation therapy. It is not intended as a patient handout, however its contents can be used to develop patient education material.

Any questions or concerns about signs and symptoms of radiation skin reaction, the management of the reaction, or suspicion of bacterial or fungal infections **MUST** be reported to the attending radiation oncologist.

Disclaimer

Products listed herein are examples of identified product classifications. These products are cited in the literature (see References - page 31) and identified as causing no harmful effects to the patient. The examples are based on patterns of practice and may vary depending on locale. The products listed are often used to promote patient comfort. **Unless stated, use package directions for any example products. There have been no clinical trials completed to provide evidence of effectiveness or safety with respect to radiation skin reactions.**

General Information

Goals of the Care of Radiation Skin Reactions Guidelines

1. To minimize radiation skin reactions.
2. To maintain and restore skin integrity when possible.
3. To control symptoms, promote comfort, and enhance quality of life.

Principles

- ❖ Early radiation skin reactions result from depletion of actively proliferating cells in the basal layer of the skin.
- ❖ Reactions are evident approximately 1-4 weeks after beginning treatment and can persist for several weeks post treatment.
- ❖ Expected radiation skin reaction is multifactorial and complex.
- ❖ Well hydrated skin promotes healing and comfort as well as reduces potential for trauma.^{2,3}
- ❖ Moist environment promotes healing for damaged or open skin lesions.^{3,4,5,6}
- ❖ Individualized care is based on patient's unique circumstances.
- ❖ Skin reactions are dependent on treatment factors such as:
 1. Larger total dose.
 2. Large fractional dose.

Principles cont,

3. Type of treatment modality – electrons or lower energy photons produce higher skin doses.
4. Location of treatment field – sites where two skin surfaces are in contact; for example, breast, buttocks.
5. Use of bolus as buildup material to increase dose to skin.

❖ Skin reactions are also dependent on patient factors such as:

1. Areas where the skin is thin and smooth; ie. face, axilla, groin, perineum.
2. Compromised skin integrity; ie. surgery, scars, lesions.
3. Sites of inflammation.
4. Skin care routine.
5. Chemotherapy.
6. Medical conditions; ie. diabetes, renal failure.
7. Age - older patients are at increased risk.
8. Compromised nutritional status.
9. Compromised lymph drainage; ie. breast.
10. Chronic sun exposure.
11. Smoking.⁶
12. Limited self-care abilities.

Erythema

Clinical Presentation

- ❖ Pink to dusky coloration.
- ❖ May be accompanied by mild edema.
- ❖ Burning, itching and mild discomfort.

Reaction Assessment

Assessment to include

- ❖ Location.
- ❖ Size of area.
- ❖ Colour.
- ❖ Discomfort (burning, itching, pulling, tenderness).



Erythema

Care Objectives	Actions	Rationale	Example Products
Promote Cleanliness	Use non-alkaline soap. Bathe using lukewarm water and palm of hand to gently wash affected skin. Rinse well. Pat dry with a soft towel.	Soothes skin, reduces erythema and itching. ^{2,4} Washing subjectively is associated with stress reduction and patients wellbeing. ^{3,7}	mild, unscented soap ^{2,3,6,7,8,9} - DOVE® - IVORY® - NEUTROGENA® - BASIS® - baby soap
	Wash hair using lukewarm water and mild, non-medicated shampoo. ^{3,10}	Shown not to be detrimental or significantly increase scalp reaction. Washing hair subjectively associated with stress reduction and patients wellbeing. ^{3,11}	baby shampoo ⁶
	***Sitz baths for perineal/rectal patients from beginning of their treatment course.	Soothes skin, reduces erythema and itching. ^{5,6} Washing subjectively associated with stress reduction and patients wellbeing. ^{3,7}	

*** Suggested treatment: 3. Sitz Baths, page 27

Erythema

Care Objectives	Actions	Rationale	Example Products
Promote Comfort	Apply hydrophilic (water-based) body lotions or creams on affected area. Gently apply with clean hand twice a day. DO NOT rub skin.	Maintains skin integrity. Keeps the skin hydrated and supple. No significant bolus effect demonstrated. ^{6,11,12}	* Hydrophilic lotions or creams / moisturizers ^{4,6} - LUBRIDERM® - KERI® LOTION - GLAXAL BASE® - DERMAL THERAPY® - EUCERIN® - AQUAPHOR®
	Aloe Vera gel may be used on the skin. ¹²	It is not harmful and may soothe and cool skin. It does not moisturize.	
	Avoid petroleum jelly based products (hydrophobic/water repelling).	Petroleum-based products are poorly absorbed, provide minimal hydration and are difficult to remove. ^{6,13,14}	Avoid VASELINE® PETROLEUM JELLY.
	Avoid irritant products containing alcohol, perfumes or additives and products containing Alpha Hydroxy Acids (AHA).	Can increase skin reaction.	
	Cornstarch, talc and baby powder may be used on intact skin but are not recommended.	Does not moisturize. Can create an environment for fungal and bacterial infection if applied to moist areas ^{4,6,15} such as skin folds, axilla or buttocks.	

* Suggested treatment: 1. Application of Topical Products, page 25

Erythema

Care Objectives	Actions	Rationale	Example Products
Promote Comfort continued -	**Normal saline compresses	Alleviates burning, itching and shearing.	
Reduce Inflammation	Alleviate pruritus and inflammation.	Predominantly local anti-inflammatory effect. Use only on intact skin.	Corticosteroid creams *Hydrocortisone cream used sparingly. ^{3,7,16,17} May require physician script.
Prevent Trauma to the Treatment Area	For facial and underarm shaving, use an electric razor.	Minimize friction; prevents cuts.	
	Recommend loose, non-binding clothing.	To promote comfort.	A soft, breathable fabric, like cotton.
	Protect skin from direct sunlight and wind exposure.	To avoid added exposure or irritation to the skin in the treatment area.	Wear wide-brimmed hat and protective clothing (long-sleeved cotton shirt).

** Suggested treatment: 2. Normal Saline Compresses, page 26

* Suggested treatment: 1. Application of Topical Products, page 25

Erythema

Care Objectives	Actions	Rationale	Example Products
Prevent Trauma to the Treatment Area - continued -	Avoid swimming in chlorinated pools, hot tubs and lakes.	To reduce exposure to chlorinated water and chemicals that may have a drying effect on skin.	
	Avoid extremes of heat and cold.	Avoid thermal injury to treatment area.	Avoid heating pads and ice packs.
	Avoid adhesive tape. Extend dressing out of treatment area and adhere to intact skin with paper tape.	Prevents epidermal tears and shearing.	Secure dressing with cling gauze, net tubing or under clothing.

Dry Desquamation

Clinical Presentation

- ❖ Partial loss of the epidermal basal cells.
- ❖ Dryness, itching, scaling, flaking, and peeling.
- ❖ Hyperpigmentation.

Reaction Assessment

Assessment to include:

- ❖ Location.
- ❖ Size of area.
- ❖ Colour.
- ❖ Discomfort (dryness, itching, scaling, flaking, peeling).
- ❖ Monitor closely for any drainage or open area (indicator of moist desquamation).



Dry Desquamation

Care Objectives	Actions	Rationale	Example Products
Promote Cleanliness	Use non-alkaline soap. Bathe using lukewarm water and palm of hand to gently wash affected skin. Rinse well. Pat dry with a soft towel.	Soothes skin, reduces erythema and itching. ⁴ Washing subjectively is associated with stress reduction and patients wellbeing. ^{3,7}	mild, unscented soap ^{2,3,6,7,8,9} - DOVE® - IVORY® - NEUTROGENA® - BASIS® - baby soap
	Wash hair using lukewarm water and mild, non-medicated shampoo. ^{3,10}	Shown not to be detrimental or significantly increase scalp reaction. Washing hair subjectively associated with stress reduction and patients wellbeing. ^{3,11}	baby shampoo ⁶
	***Sitz baths for perineal/rectal patients from beginning of treatment course.	Soothes skin, reduces erythema and itching. ^{5,6} Washing subjectively is associated with stress reduction and patients wellbeing. ^{3,7}	

*** Suggested treatment: 3. Sitz Baths, page 27

Dry Desquamation

Care Objectives	Actions	Rationale	Example Products
Promote Comfort	Apply hydrophilic (water based) body lotions or creams on affected area. Gently apply with clean hand twice a day. DO NOT rub skin.	Maintains skin integrity. Keeps the skin hydrated and supple. No significant bolus effect demonstrated. 6,11,12	*Hydrophilic lotions or creams / moisturizers 4,6 - LUBRIDERM® - KERI® LOTION - GLAXAL BASE® - DERMAL THERAPY® - EUCERIN® - AQUAPHOR®
	Avoid petroleum jelly-based products (hydrophobic/water repelling).	Petroleum based products are poorly absorbed, provide minimal hydration and are difficult to remove. 6,13,14	Avoid VASELINE® PETROLEUM JELLY.
	Discontinue use of Aloe Vera. 12	Is not a moisturizer.	
	Avoid irritant products containing alcohol, perfumes or additives, and products containing Alpha Hydroxy Acids(AHA).	May irritate skin.	
	Cornstarch, talc and baby powders may be used on intact skin but are not recommended.	Does not moisturize. Can create an environment for fungal and bacterial infection if applied to moist areas 4,6,15 such as skin folds, axilla or buttocks.	
	**Normal saline compresses	Alleviate burning, itching and shearing.	

* Suggested treatment: 1. Application of Topical Products, page 25 ** Suggested treatment: 2. Normal Saline Compresses, page 26

Dry Desquamation

Care Objectives	Actions	Rationale	Example Products
Reduce inflammation.	Alleviate pruritus and inflammation.	Predominantly local effect, anti-inflammatory. Use only on intact skin.	Corticosteroid creams. *Hydrocortisone cream used sparingly. ^{3,7,16,17} May require physician script.
Prevent trauma to the treatment area.	For facial and underarm shaving, use an electric razor.	Minimize friction; prevents cuts.	A soft, breathable fabric, like cotton.
	Recommend loose, non-binding clothing.	To promote comfort.	Wear wide-brimmed hat and protective clothing (long-sleeved cotton shirt).
	Protect skin from direct sunlight and wind exposure.	To avoid added exposure or irritation to the skin in the treatment area.	
	Avoid swimming in chlorinated pools, hot tubs and lakes.	To reduce exposure to chlorinated water and chemicals that may have a drying effect on skin.	
	Avoid extremes of heat and cold.	Avoid thermal injury to treatment area.	Avoid heating pads, ice packs.
	Avoid adhesive tape. Extend dressing out of treatment area and adhere to intact skin with paper tape.	Prevents epidermal tears and shearing.	Cling gauze, net tubing under clothing.

* Suggested treatment: 1. Application of Topical Products, page 25

Moist Desquamation

Clinical Presentation

- ❖ Complete destruction of the basal cell layer
- ❖ Blister or vesicle formation
- ❖ Nerve exposure and pain
- ❖ Serous drainage

Reaction Assessment

Assessment to include:

- ❖ Location
 1. moist areas
 2. dry areas
- ❖ Size of area
- ❖ Wound base (granular tissue, eschar or necrotic tissue)
- ❖ Exudate
 1. type
 2. amount
 3. odour
- ❖ Discomfort (burning, itching, pulling, tenderness)
- ❖ Signs of clinical infection
 1. fever
 2. foul odour
 3. purulent drainage
 4. pain and swelling extending outside of radiation area.



Individual patient assessment and goals required. Contact BCCA nursing staff, nursing triage line or primary oncologist. (Contact numbers at front of document).

Moist Desquamation

Care Objectives	Actions	Rationale	Example Products
Promote Cleanliness	Cleanse with room temperature normal saline. Normal saline may be more soothing than tap water. ** Normal saline compress applied 3 or 4 times per day.	Cools, soothes skin.	
	*** Sitz baths	Soothes skin, reduces erythema and itching. ^{5,6} Washing subjectively is associated with stress reduction and patients well being. ^{3,7}	
Maintain Principles of Moist Healing	Use moisture retentive protective barrier ointment after each saline soak. Remove prior to treatment.	Provides moist healing environment and barrier protection to moisture loss. Cools, soothes and comforts.	PROSHIELD® ¹⁸
	**** Consider use of Hydrogels. 4,6,19	Gel is non-adherent and easily removed. Provides moisture, enhances autolytic debridement while promoting rapid re-epithelization.	DUODERM® GEL INTRASITE® GEL

Moist Desquamation

Care Objectives	Actions	Rationale	Example Products
Maintain Principles of Moist Healing (cont.)	Use non- adherent dressings over topical product.	Promotes comfort and maintains a moist environment. Can be removed with no damage to skin.	MEPITEL®
	Use absorbent dressings over low-adherent dressings. Change as drainage warrants.	To absorb drainage.	AQUACEL® (moderate to heavy) KALTOSTAT® (bleeding wounds)
	Control drainage. ****Consider use of hydrocolloids dressing. 4,6,12,19	Promotes autolytic cleansing of debris, absorbs wound fluid and promotes reduced healing time and comfort.	DUODERM® Dressing (moderate) COMBIDERM® (excessive)
	Secure products with appropriate secondary dressing.		TELFAP® (low adherant) ETE® (low adherant)
	Avoid adhesive tape. Extend dressing out of treatment area and adhere to intact skin with paper tape.	Prevents epidermal tears and shearing.	Cling gauze, Net tubing under clothing.

** Suggested treatment: 2. Normal Saline Compresses, page 26

*** Suggested treatment: 3. Sitz Bath, page 27

**** Suggested treatment: 5 and 6. Hydrogel/Hydrocolloid dressings, page 29,30

Moist Desquamation

Care Objectives	Actions	Rationale	Example Products
Manage pain	<p>Cover open areas to protect nerve endings. To significantly decrease burning and tenderness use appropriate dressings.</p> <p>Use analgesic as instructed by physician.</p>	Discomfort related to moist desquamation can cause both physiological and psychological distress. By following the principles of moist healing and applying the appropriate dressing to maintain the correct environment, both pain management and healing can be achieved.	<p>MEPITEL[®] (non- adherent)</p> <p>TELF[®] (low adherent)</p> <p>ETE[®] (low adherent)</p>
Prevention of infection	<p>Regularly assess for signs of infection.</p> <p>Culture wound following cleansing with normal saline. ²⁰</p> <p>Antibacterial/antifungal products as ordered by oncologist as symptoms warrant.</p>	Possible yeast infection in skin folds.	<p>*^ FLAMAZINE[®]</p> <p>BACTROBAN[®]</p>
	Avoid cornstarch, talc and baby powders.	Creates an environment for fungal and bacterial infection. ^{4,6,15}	
	**Cleanse with normal saline.	Reduce bioburden.	

** Suggested treatment: 2. Normal Saline Compresses, page 26

*^ Suggested treatment: 4. Silver Sulfadiazine Cream (FLAMAZINE[®]) Application, page 28

Potential Post Radiation Skin Reaction

Late Reactions

Late reactions are defined as skin reactions occurring six or more months after completion of radiation therapy. The clinical presentation and the degree of late reaction vary. The type and level of care will vary accordingly.

Clinical Presentation

- ❖ Pigmentation changes
- ❖ Permanent hair loss
- ❖ Telangiectasia
- ❖ Fibrous changes
- ❖ Atrophy
- ❖ **Ulceration – Individual patient assessment and goals required.
Contact BCCA nursing staff, nursing triage line or primary oncologist. (Contact numbers at front of document).**

Reaction Assessment

Assessment to include:

- ❖ Location
- ❖ Size of area
- ❖ Colour
- ❖ Discomfort

Potential Post Radiation Skin Reaction

Care Objectives	Actions	Rationale	Example Products
Maintain Skin Flexibility	Apply hydrophilic (water-based) body lotions or creams on the affected area.	Maintains skin integrity. Keeps the skin hydrated and supple. ^{6,11,12}	<p>*Hydrophilic lotions or creams / moisturizers ^{4,6}</p> <ul style="list-style-type: none"> - LUBRIDERM[®] - KERI[®] LOTION - GLAXAL BASE[®] - DERMAL THERAPY[®] - EUCERIN[®] - AQUAPHOR[®]
Prevent Injury	Avoid excessive sun exposure.	Irradiated skin is more sensitive to sun exposure reactions.	Wear protective clothing. Sunblocking creams or lotions with minimum SPF 30 is recommended at all times.

* Suggested treatment: 1. Application of Topical Products, page 25

Potential Post Radiation Skin Reaction

Recall Phenomenon

Recall Phenomenon occurs when skin reactions manifest very rapidly within a previously treated radiation field, following the administration of chemotherapy drugs.

Clinical Presentation

- ❖ Symptoms of moist desquamation
- ❖ Rapid onset and progression

Reaction Assessment

Assessment to include:

- ❖ Location
 1. moist area
 2. dry area
- ❖ Size of area
- ❖ Wound base (granular tissue, eschar or necrotic tissue present)
- ❖ Exudate
 1. type
 2. amount
- ❖ Odour
- ❖ Discomfort (burning, itching, pulling, tenderness)
- ❖ Signs of clinical infection
 1. fever
 2. foul odour
 3. purulent drainage
 4. pain and swelling of area

Potential Post Radiation Skin Reaction

Recall Phenomenon

Care Objectives	Actions	Rationale	Example Products
Promote Cleanliness	Cleanse with room temperature normal saline. Normal saline may be more soothing than tap water. **Normal saline compress applied 3 or 4 times per day.	Cools, soothes skin.	
	***Sitz baths for perineal/rectal patients.	Soothes skin, reduces erythema and itching. ^{5,6} Washing subjectively is associated with stress reduction and patients wellbeing. ^{3,7}	
Maintain principles of moist healing	Use moisture retentive protective barrier ointment after each saline soak. Remove prior to treatment.	Provides moist healing environment and barrier protection to moisture loss. Cools, soothes and comforts.	PROSHIELD® 18
	****Consider use of Hydrogels 4,6,19	Gel is non-adherent and easily removed. Provides moisture, enhances autolytic debridement while promoting rapid re-epithelization.	DUODERM GEL® INTRASITE GEL®

** Suggested treatment: 2. Normal Saline Compresses, page 26

*** Suggested treatment: 3. Sitz Bath, page 27

*^^ Suggested treatment: 5 and 6. Hydrogel/Hydrocolloid dressings, page 29,30

Potential Post Radiation Skin Reaction

Recall Phenomenon

Care Objectives	Actions	Rationale	Example Products
Maintain Principles of Moist Healing (cont.)	Use non-adherent dressings over topical product.	Promotes comfort and maintains a moist environment. Can be removed with no damage to the skin.	MEPITEL®
	Use absorbent dressings over low-adherent dressings. Change as drainage warrants.	To absorb drainage.	AQUACEL® (moderate to heavy) KALTOSTAT® (bleeding wounds)
	Control drainage ****Consider use of hydrocolloids dressing. 4,6,12,19	Promotes autolytic cleansing of debris, absorbs wound fluid and promotes reduced healing time and comfort.	DUODERM® Dressing (moderate) COMBIDERM® (excessive)
	Secure products with appropriate secondary dressing.		TELFA® ETE®
	Avoid adhesive tape. Extend dressing out of treatment area and adhere to intact skin with paper tape.	Prevents epidermal tears and shearing.	Cling gauze, Net tubing under clothing.

*^^ Suggested treatment: 5 and 6. Hydrogel/Hydrocolloid dressings, page 29,30

Potential Post Radiation Skin Reaction

Recall Phenomenon

Care Objectives	Actions	Rationale	Example Products
Manage pain	<p>Cover open areas to protect nerve endings. Use appropriate dressing to significantly decreased burning and tenderness.</p> <p>Use analgesic medication as instructed by physician.</p>	<p>Discomfort related to moist desquamation can cause both physiological and psychological distress.</p> <p>By following the principles of moist healing and applying appropriate dressing to maintain the correct environment, both pain management and healing can be achieved.</p>	<p>MEPITEL[®] (non- adherent) TELFA[®] (low adherent) ETE[®] (low adherent)</p>
Prevention of infection	<p>Regularly assess for signs of infection. Culture wound if warranted following cleansing with normal saline.²⁰</p> <p>Use antibacterial or antifungal products as ordered by oncologist, as symptoms warrant.</p>	<p>For treatment and prophylaxis of infection.</p>	<p>*^FLAMAZINE[®] BACTROBAN[®]</p>
	<p>**Cleanse with normal saline.</p>	<p>Reduce bioburden.</p>	

** Suggested treatment: 2. Normal Saline Compresses, page 26

*^ Suggested treatment: 4. Silver Sulfadiazine Cream (FLAMAZINE[®]) Application, page 28

Suggested Treatment Procedure

If you have any questions regarding the use and application of procedures or products please contact BCCA Nursing staff in your region. (Contact numbers listed at front of document)

1. Application of Topical Products

2. Normal Saline Compresses

3. Sitz Bath

4. Silver Sulfadiazine Cream (FLAMAZINE®) Application

5. Hydrogel dressings

6. Hydrocolloid dressings

1. Application of Topical Products

Use of Moisturizing Products

- ❖ Instruct patient to gently apply a thin layer with their clean hand in the morning and again at bedtime to the skin in the treatment area.

Use of Corticosteroid creams

- ❖ A prescription for hydrocortisone cream is required for concentrations higher than 0.5%.

Contraindication

- ❖ Do not use hydrocortisone if a skin infection is suspected as it may mask signs symptoms of infection and increasing severity. ⁶
- ❖ Do not use hydrocortisone on a longterm basis as it may cause problems resulting from reduced blood flow to the skin. ¹⁴

Procedure

- ❖ Instruct patient to gently apply with their clean hand a very thin layer of hydrocortisone cream up to four times per day. Instruct patient to apply to skin in the treatment area until discomfort decreases and to wash hands after application.
- ❖ Discontinue use of hydrocortisone if there is any exudate from the affected area.

Suggested Treatment Procedure

2. Normal Saline Compresses

Indications

1. To reduce discomfort due to inflammation or skin irritation.
2. To cleanse open areas.
3. To loosen dressings.
4. To soften or debride necrotic tissue.

Contraindication

- ❖ Increased discomfort during procedure.

Procedure

- ❖ Moisten gauze with room temperature saline solution.
- ❖ Wring out excess moisture, but be sure gauze will not dry out and stick to open areas.
- ❖ Apply moist gauze to open areas x 10-15 minutes (remove before it dries out, re-moisten if required). Cover compress with abdominal pad or disposable underpad to retain warmth and moisture.
- ❖ Remove gauze and gently irrigate wound with normal saline if required to remove any debris.
- ❖ Gently dry surrounding skin.
- ❖ Apply dressing / other treatments as indicated.
- ❖ Repeat BID-QID as required.

Note: Continuous moist saline compresses may be indicated for short term use (24 - 48 hrs) for a necrotic or heavily exudative wound; it is critical that the compress is replaced frequently enough that it does not dry out and stick and that moist gauze is applied only to wound area to avoid maceration of intact skin

Recipe for Saline

1. Heat one (1) liter of water to boiling. Remove from heat.
2. Add 1.5 - 2 teaspoons table salt. Stir until dissolved.
3. Pour solution into clean one (1) liter container.
4. Make a fresh solution each evening. Cover and leave out overnight to cool to room temperature.

Suggested Treatment Procedure

3 Sitz Bath

Purpose

- ❖ Perineal hygiene is the primary reason for using a sitz bath during/post RT when the area is tender and inflamed.

Indications

- ❖ Use at onset of treatment for comfort and cleanliness.
- ❖ Use at any time for any skin reaction in the perineal/peri-rectal area.
- ❖ Discomfort with defecation.
- ❖ Continuous discomfort due to perineal inflammation, hemorrhoids, radiation-induced diarrhea.

Contraindication

- ❖ Increased discomfort during procedure.

Procedure

- ❖ Use a sitz bath which fits in toilet.
- ❖ Normal saline is more soothing than water.
- ❖ Water or saline should be lukewarm(40 - 43^o C).
- ❖ Hot water can cause increased drying of skin.

Procedure cont.

- ❖ Lukewarm will increase vasoconstriction and may decrease the itching.
- ❖ Do not add bath oils or other products to water.
- ❖ A hand held shower with a gentle spray or bathtub may be appropriate alternatives.
- ❖ Maximum 10 - 15 minutes, repeat up to QID and/or after each bowel movement.
- ❖ Gently pat area dry with a soft towel or expose area to room air.

Recipe for Saline

1. Heat one (1) liter of water to boiling. Remove from heat.
2. Add 1.5 - 2 teaspoons table salt. Stir until dissolved.
3. Pour solution into clean one (1) liter container.
4. Make a fresh solution each evening. Cover and leave out overnight to cool to room temperature.

Suggested Treatment Procedure

4. Silver Sulfadiazine Cream (FLAMAZINE®)

Silver Sulfadiazine Cream (FLAMAZINE®) is an antibacterial cream, which reduces the risk of infection. It requires a physician's prescription.

Purpose

- ❖ To reduce risk of infection.
- ❖ To reduce discomfort.
- ❖ To maintain moist healing environment.
- ❖ To reduce adherence of dressings.

Indications

- ❖ The treatment and prophylaxis of infection in open wounds (moist desquamation).

Contraindication

- ❖ Allergy to sulfa, use non-sulfa containing topical antibiotic cream.
- ❖ Should not be used for patients with history of severe renal or hepatic disease or during pregnancy.

Procedure

1. Gently cleanse wound area with normal saline if area is small and dressing is easily removed.
2. Cleanse with tap water (sink, bathtub, shower or sitz bath) if area is large, difficult to cleanse or adherence of dressing is a problem.
3. It is important to gently remove all residual cream from previous applications (saline compresses may be required).
4. Apply a thin layer of cream to area of affected skin only.
5. Apply appropriate secondary dressing.
TELFAPAD® is appropriate if minimal exudate.
MEPITAL® with appropriate cover dressing depending on exudate. Avoid using dressings which adhere to the area.
6. Change dressing at least once daily.

Suggested Treatment Procedure

5. Hydrogel

Hydrogel is a sterile wound gel for helping create or maintain a moist environment. Some hydrogels provide absorption, desloughing and debriding capacities to necrotic and fibrotic tissue. Hydrogel sheets are cross-linked polymer gels in sheet form.

Purpose

- ❖ To increase comfort (cooling effect on skin).
- ❖ To increase moisture content.
- ❖ To absorb small amounts of exudate.

Indications

- ❖ Moist desquamation with minimal exudate.

Contraindication

- ❖ Not advised for infected wounds.
- ❖ Moderate to heavily exudating wounds.
- ❖ Areas that need to be kept dry.

Procedure

1. Cleanse area with normal saline soaks, or sitz baths.
2. Pat dry surrounding skin.
3. Either apply a thin layer of hydrogel directly onto the area of moist desquamation or apply with a sterile tongue depressor.
4. Cover with non-adhesive dressing (may be secured by clothing if patient is ambulatory).
5. May be used in combination with transparent films, foams, hydrocolloids or other non-adherents.
6. Reapply at least daily and always following normal saline soaks /sitz baths.

Note: While patient is receiving radiation treatment, gel should be applied after daily treatment not before.

Suggested Treatment Procedure

6. Hydrocolloid Dressing

Hydrocolloids are occlusive and adhesive wafer dressing which combine absorbent colloidal material with adhesive elastomeres to manage light to moderate amount of wound exudate. Most hydrocolloids react with wound exudate to form a gel-like covering which protect the wound bed and maintains a moist wound environment.

Purpose

- ❖ To reduce pain at wound site.
- ❖ Maintain moist wound bed.
- ❖ To increase comfort.
- ❖ Support autolytic debridement by keeping wound exudate in contact with necrotic tissue.

Indications

- ❖ Moist desquamation with moderate exudate.

Contraindication

- ❖ Infected wounds.
- ❖ Heavily exudating wounds.

Procedure

1. Cleanse area with normal saline, or sitz baths.
2. Pat dry surrounding skin.
3. Choose a dressing that extends beyond the wound.
4. Remove backing and apply to wound.
5. Change dressing as required depending on causative factors, contributing factors and amount of exudate.

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