The effects of radiotherapy on the skin
- patients undergoing radiotherapy may experience skin changes
- patients should have their skin formally assessed prior to, during radiotherapy and post-treatment.

Risk factors for radiotherapy skin reactions
- there are direct and indirect factors which can influence the risk of skin reactions
- skin reactions are expected and can occur for up to three weeks post-treatment. Reactions may peak up to ten days following the end of treatment then slowly recover
- the skin reaction is unavoidable and interventions and advice are aimed at minimising the severity of the reaction.

Skin assessment
- during and after treatment, a comprehensive assessment of the patient’s skin should be made by healthcare professionals using a valid and reliable assessment tool, such as the RTOG (www.sor.org)
- be aware that skin can also be affected at the exit site. The exit site is the area through which the radiation beam leaves the body.

RTOG 0 - No visible change:
- RTOG grade is documented weekly
- essential to emphasise the importance of skincare at this early stage, in particular, stress the delayed nature of the skin reaction
- patients will be advised to follow the basic skincare guidelines which are detailed in the best practice statement.

RTOG 1 - Faint or dull erythema:
- RTOG grade is documented weekly
- skin reaction is monitored and deterioration recognised
- patients are informed and aware of the care of their skin
- patients are aware of the potential for further escalation of reaction.
RTOG 2a: Tender or bright erythema with/without dry desquamation:
- RTOG grade is documented daily
- daily assessment of the skin is recommended as there is a risk of moist desquamation occurring
- patients are aware of the potential for further escalation of reaction
- topical mild steroid creams should be avoided if skin is broken or shows any signs of infection.

RTOG 2b: Patchy moist desquamation; moderate oedema:
- RTOG grade is documented daily
- daily skincare by an appropriate healthcare professional may be required
- patients should be fully aware of the necessity of skin care as per the basic guidelines
- the principles of moist wound healing should apply to promote a healing environment, prevent infection and control pain
- patients should be fully aware of the likelihood for potential deterioration before healing.

RTOG 3: Patchy moist desquamation; pitting oedema:
- daily skincare by an appropriate healthcare professional may be required
- patient comfort and pain control are paramount
- painful moist areas are present which will be treated daily according to local cancer centre policy
- the area will be observed for infection (particularly in the skin folds)
- patients may be immuno-compromised and may not exhibit classic signs of infection (eg raised temperature, white blood cell count or ESR).

Delayed skin reactions to radiotherapy
(more than 3 weeks after radiotherapy has been completed)
- skin reactions may develop after treatment has been completed
- permanent skin changes may occur following treatment
- patients should be reminded about potential skin reactions that may follow treatment.

Skincare practices to avoid
Skin reactions are expected during radiotherapy treatment. There is nothing that can be done to prevent these but there are a number of practices which must be avoided during the care and management of these reactions.
- do not use thick creams that cause a lot of friction to apply or put on
- do not use creams that are paraffin based
- do not use adhesive dressings
Steroid or cortisone creams should only be used following medical advice from the radiotherapy department. These creams should not be used on broken skin.