

A SERVICE EVALUATION OF SKIN CARE  
PROTOCOL FOR RADIOTHERAPY PATIENTS  
OF DIFFERENT ETHNICITIES/ SKIN TONES IN  
RADIOTHERAPY DEPARTMENTS IN THE UK



# Alfa Marks

Therapeutic Radiography

CoRIPS Pre-registration Student Dissertation Award



Celebrating the  
**RADIOGRAPHY**  
**AWARDS**



**PHILIPS**

- Concerned that I had not been taught this or heard anyone describe this to patients of colour.
- Challenged my expectations.

### **Sore skin**

There is currently no general agreement based on research regarding caring for skin during radiotherapy. Advice on skin care varies from one hospital to another. The staff at your radiotherapy department will give you advice about how to care for your skin in the treatment area at the beginning of your course of radiotherapy.

During treatment the skin may become red and sore and it's important not to irritate it. Avoid shaving within the treatment area. You may wash the area gently using a mild unperfumed soap, such as baby soap, and pat it dry. Don't use any deodorants, perfumes or lotions on your skin other than those recommended by the team caring for you. You should protect your skin from extremes of temperature and continue using sunscreen (factor 50 minimum) after your treatment has finished.

There has been little research into the effects of radiotherapy on different ethnic skin types. However, anecdotal evidence suggests that people with darker skin (for example, Asian or Afro-Caribbean) may develop greater skin reactions during treatment than people with lighter skin.

If you have any discomfort, the radiographers or nurses will advise you on skin care. The doctor may prescribe or suggest a cream or lotion for you to use. Swimming may not be advisable if you develop a skin reaction as the chlorine in the water may irritate your skin. If you do swim during treatment, make sure you rinse the skin well and apply aqueous cream. Discuss this with your doctor, radiographer or nurse.

# Position Statement

## SoR | CoR Position statement on radiation induced skin reactions (RISR)

We would like to acknowledge differences in how RISR can present across different skin tones.

Published: 11 August 2022

SoR | CoR



The Society and College of Radiographers (SoR | CoR) would like to acknowledge differences in how radiation induced skin reactions (RISR) can present across different skin tones. Research highlights that within certain radiotherapy treatment sites will develop more severe RISR than others 1-6 . This can not only be physically traumatic but can also cause lasting psychological distress to patients 1-2.

If you are interested in RISR, radiotherapy skin care and helping tackle this health inequality we invited you to consider a new special interest group (SIG) being set up called the RISR SIG. This group aims to provide healthcare practitioners a platform to discuss and share RISR assessment, management and teaching information to better support all patients undergoing radiotherapy treatment. The group is being established by Naman Julka-Anderson and Samaneh Shoraka to improve access to RISR information and develop networks of multidisciplinary support throughout the UK and beyond. lyna Butt will co-chair as a patient representative to lead on public and patient involvement to help ensure every patient voice is always heard. Expressions of interest will be taken shortly.

# Questionnaire Construction, Consideration and Distribution

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- Understand the level of awareness across departments of the increased risk of severe RISR faced by POC.
- Identify ways in which evidence was informing practice/ protocol.
- Networking via the SIG meant that an expert in the field reviewed the questionnaire. I was able to make amendments which made the tool more credible.
- The subject matter: Race and racial inequity, can create defensiveness

## Service Evaluation of skin care protocol for radiotherapy patients of different skin tones

This questionnaire is designed as a tool to collect information from radiotherapy departments in the United Kingdom on their skin care protocol *and* radiographer ability to assess and identify radiation induced skin reactions (RISR). This is in specific relation to the established increased risk of patients of ethnic minorities to suffer more severe RISR than white patients.

- ⋮
3. Recent research has highlighted that radiotherapy patients from ethnic backgrounds can have worse outcomes for RISR compared to the white patients (SoR, 2022)

As a department are you aware of the body of evidence that suggests that patients with black or brown skin tones are more likely to experience severe radiation induced skin reaction than white patients? \*

- Yes
- No
- Unsure

- ⋮
8. 'A recent UK wide survey of therapeutic radiographers identified significant drops in confidence with assessing, managing and teaching RISR between lighter and darker skin tones. People were more confident when looking at lighter skin tones when compared to darker skin tones.' (SoR, 2022)

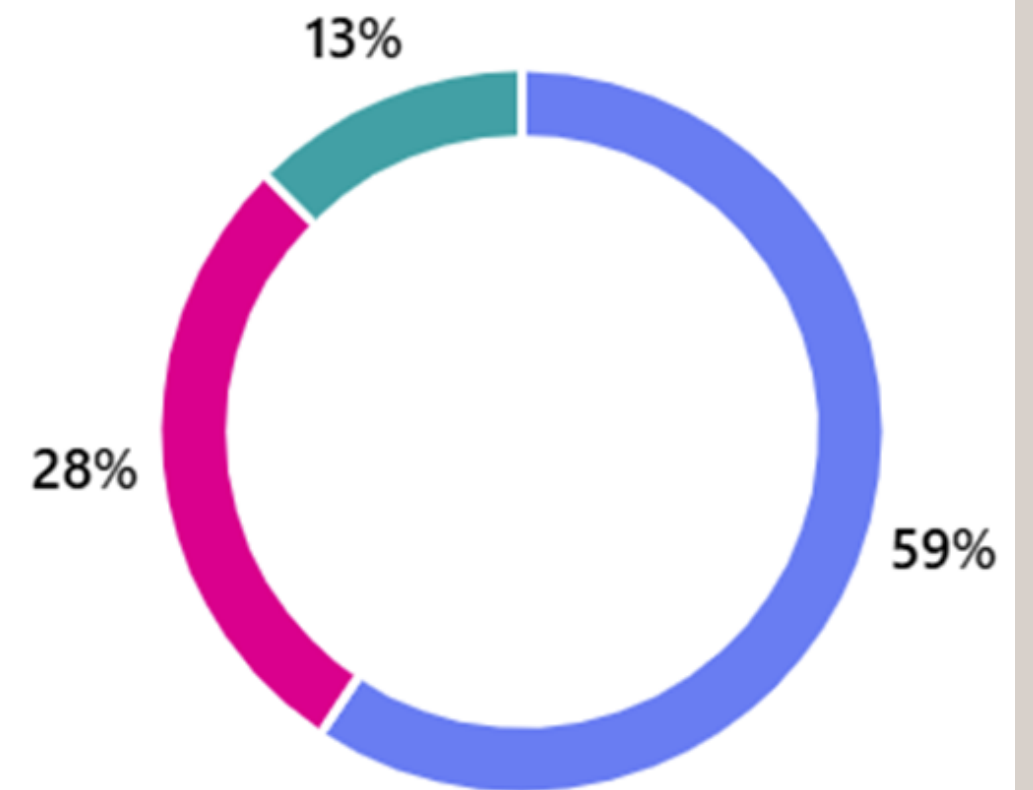
Does the RISR training provided to therapeutic radiographers cover the differences in presentation of RISR across different skin tones, including black and brown skin tones? \*

- Yes
- No (go to question 10)
- Unsure (go to question 10)

# Results

3. Recent research has highlighted that radiotherapy patients from ethnic backgrounds can have worse outcomes for RISR compared to the white patients (SoR, 2022) As a department are you aware of the body of evidence that suggests that patients with black or brown skin tones are more likely to experience severe radiation induced skin reaction than white patients?

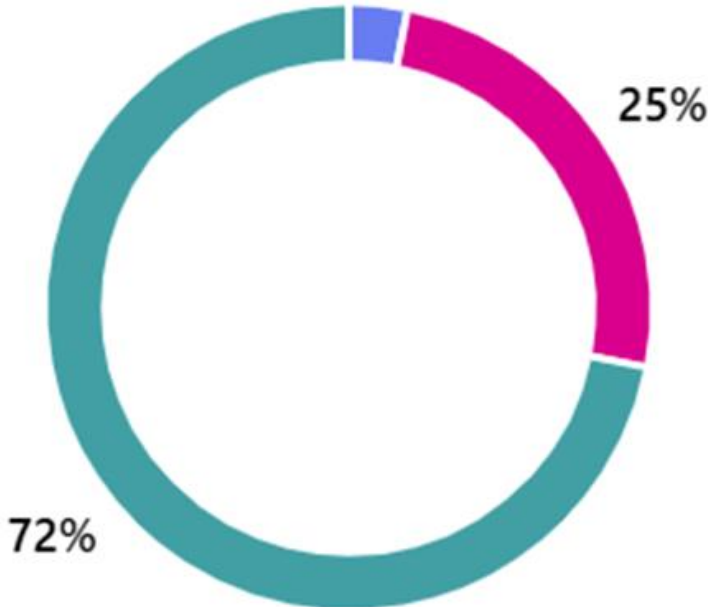
● Yes	19
● No	9
● Unsure	4



# Results

4. Does skin care protocol in your department reflect the fact that patients with black or brown skin tones are at increased risk of more severe RISR compared to white patients?


● Yes	1
● It is somewhat reflective of this	8
● No (got to question 6)	23



# Results

**Table 11: Adapted Radiation Therapy Oncology Group (RTOG) acute radiation dermatitis grading criteria**

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

Assessment	Observation	Skin reaction
RTOG 0	No visible change to the skin	
RTOG 1	Faint or dull erythema. Mild tightness of skin and itching may occur. In darker/black skin the area will appear slightly darker	
RTOG 2 (may be graded as 2a in some RTOG versions)	Brisk erythema/dry desquamation. Skin may feel tight, sore and itchy. In darker/black skin the area will become darker	
RTOG 2.5 (may be graded as 2b in some RTOG versions)	Patchy moist desquamation. Yellow/pale green exudate may be visible on surface. Soreness and oedema	
RTOG 3	Confluent moist desquamation. Yellow/pale green exudate visible. Soreness and oedema. Bleeding may occur	

‘There is actually very little information in the UK documenting patient's experience of radiotherapy skin reactions between different ethnic groups. We had a patient with darker skin tones who did get sore and so we produced some in-house information to help patients understand what to expect. It was very difficult to find RTOG scoring and associated images for this group of patients (most images were from white skin backgrounds). With patient's permission we took some photographs of their skin and used these to help update our skin care policy. Having said that we only use the SOR RTOG grading and advice but use the obtained images to give patients an idea of what to expect, should they want to see them’

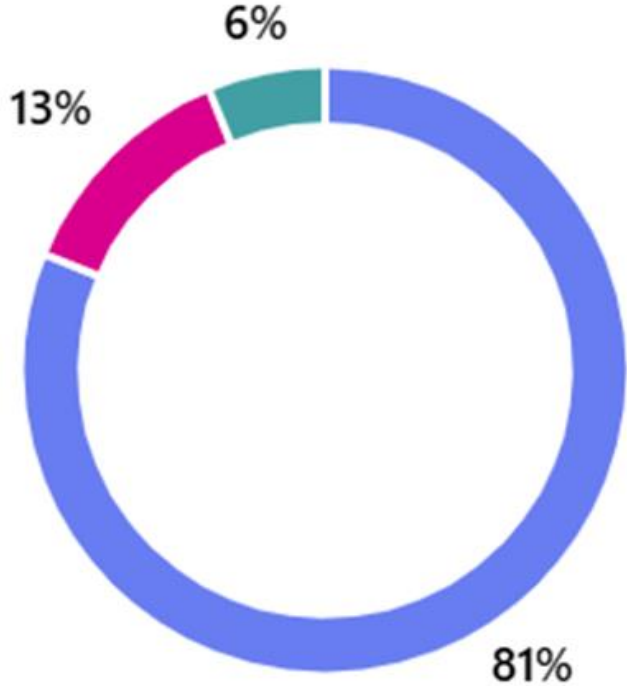


# Results

7. Are radiographers in your department provided with training to identify RISR?

[More details](#)

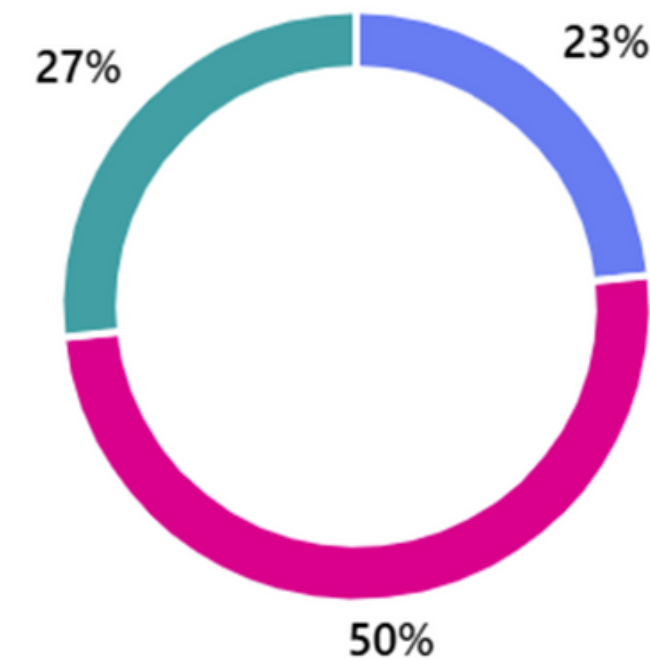
● Yes	26
● No (Go to question 10)	4
● Other	2



# Results

8. 'A recent UK wide survey of therapeutic radiographers identified significant drops in confidence with assessing, managing and teaching RISR between lighter and darker skin tones. People were more confident when looking at lighter skin tones when compared to darker skin tones. ' (SoR, 2022) Does the RISR training provided to therapeutic radiographers cover the differences in presentation of RISR across different skin tones, including black and brown skin tones?

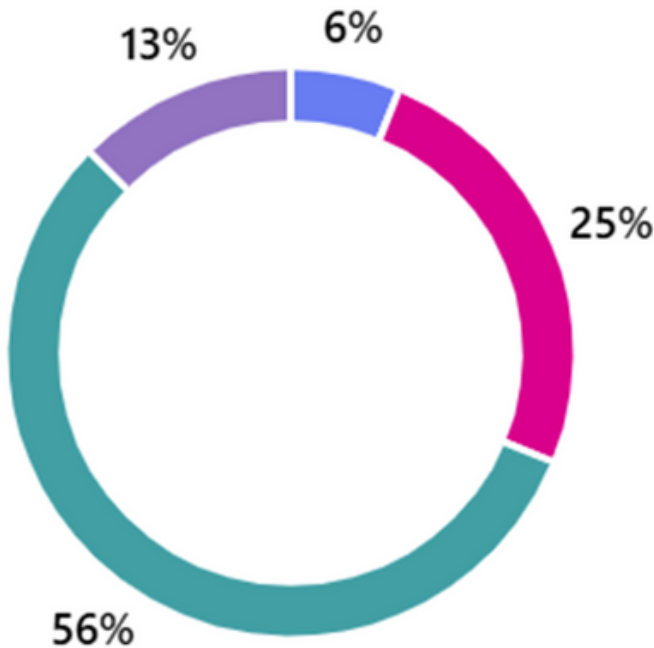
● Yes	7
● No (go to question 10)	15
● Unsure (go to question 10)	8



# Results

14. 'Patient's skin tones must be considered when providing information on how radiation induced erythema can present to fully inform them'. (SoR, 2022) To your knowledge are staff educating patients of darker skin tones how to identify erythema on their own bodies where 'redness' is inappropriate? \*

● Yes, all staff do this	2
● currently some staff do this	8
● I am unsure if staff are doing this	18
● I do not believe staff are doing this.	4



**Responses revealed that the assessment and management of RISR of black and brown patients was inferior to that of white patients due to:**

- Exclusive language in guidance including the RTOG scoring system**
- A lack of reference images of RISR presentation on black and brown skin available for practitioners.**
- Practitioner training on RISR provided in many departments being based on presentation on white skin.**