

Radiation Dermatitis

- Radiation dermatitis (RD) is a common adverse effect of radiation treatment (RT).
- 95% of RT patients experience some degree of radiation induced skin reactions, such as erythema, pruritis, pain and edema¹. Nearly all women who receive RT for breast cancer experience some degree of RD.
- Use of a soft silicone film dressing, applied prior to RT commencement, has been found in randomized controlled trials to significantly reduce of RD severity in breast cancer patients²⁻³, including lower incidence of grade 2 and grade 3 RD versus standard of care³.

Aim

- This case series and post-RT patient survey aimed to describe clinician observed and patient reported outcomes (PROs) associated with using soft silicone film (SSF) dressings to prevent radiation dermatitis in breast cancer patients.

Methods

- This case series was conducted in a WOCN-led outpatient clinic located in Vancouver, Canada where use of SSF to prevent RD in breast cancer patients is standard practice.
- Within 24 hours of starting RT, SSF dressings were applied to the breast area of 20 women and remained in place during and up to two weeks after RT completion.
- Clinical data collected by a certified wound care nurse included regular skin assessment and surveillance for RD development.
- PROs were collected via telephone surveys after RT completion. Patients rated RT related skin breakdown, impact of the SSF on daily life, SSF related pain and willingness to recommend the SSF intervention to other breast cancer patients undergoing RT.

Radiation Dermatitis Severity Scale

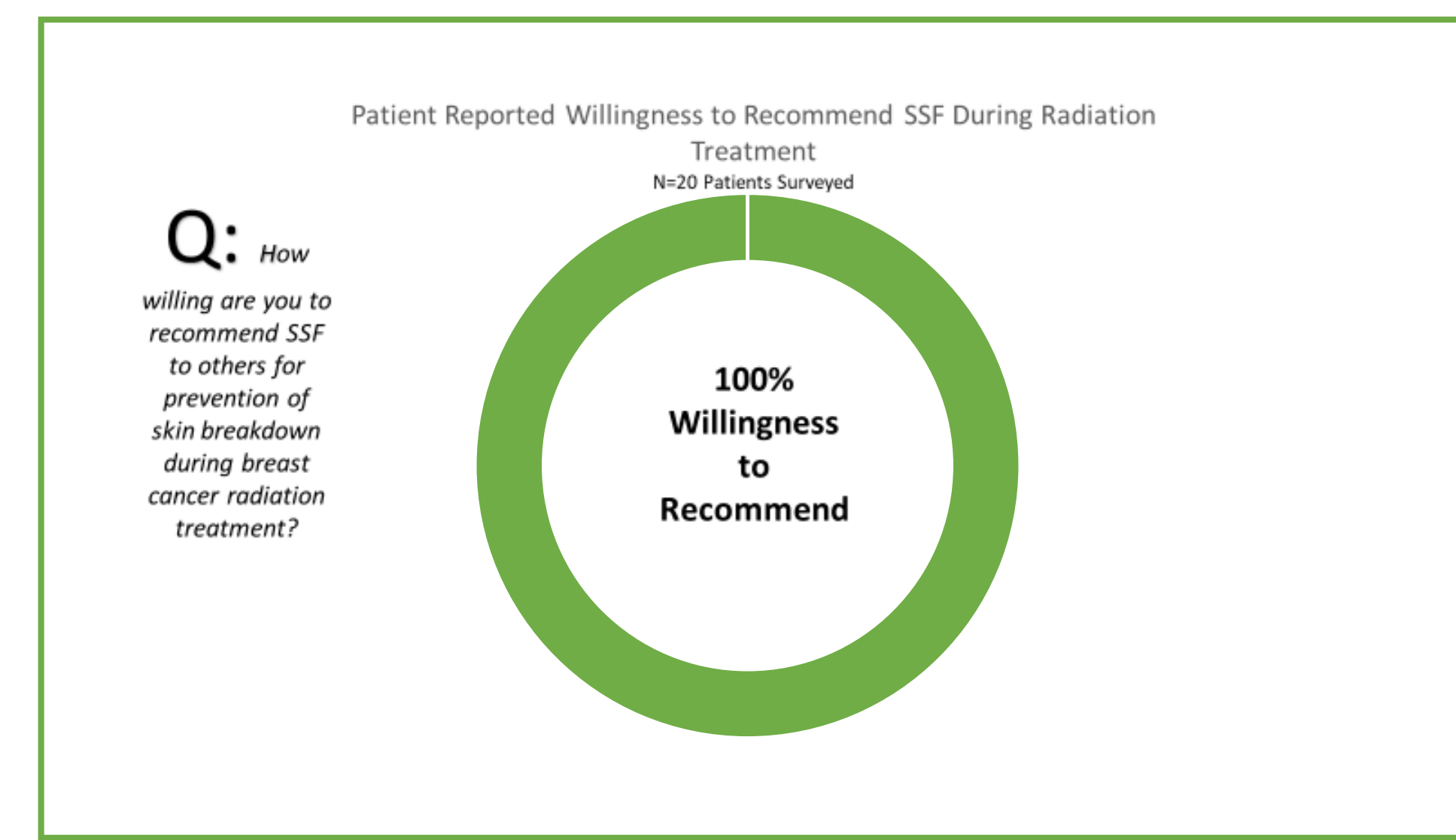
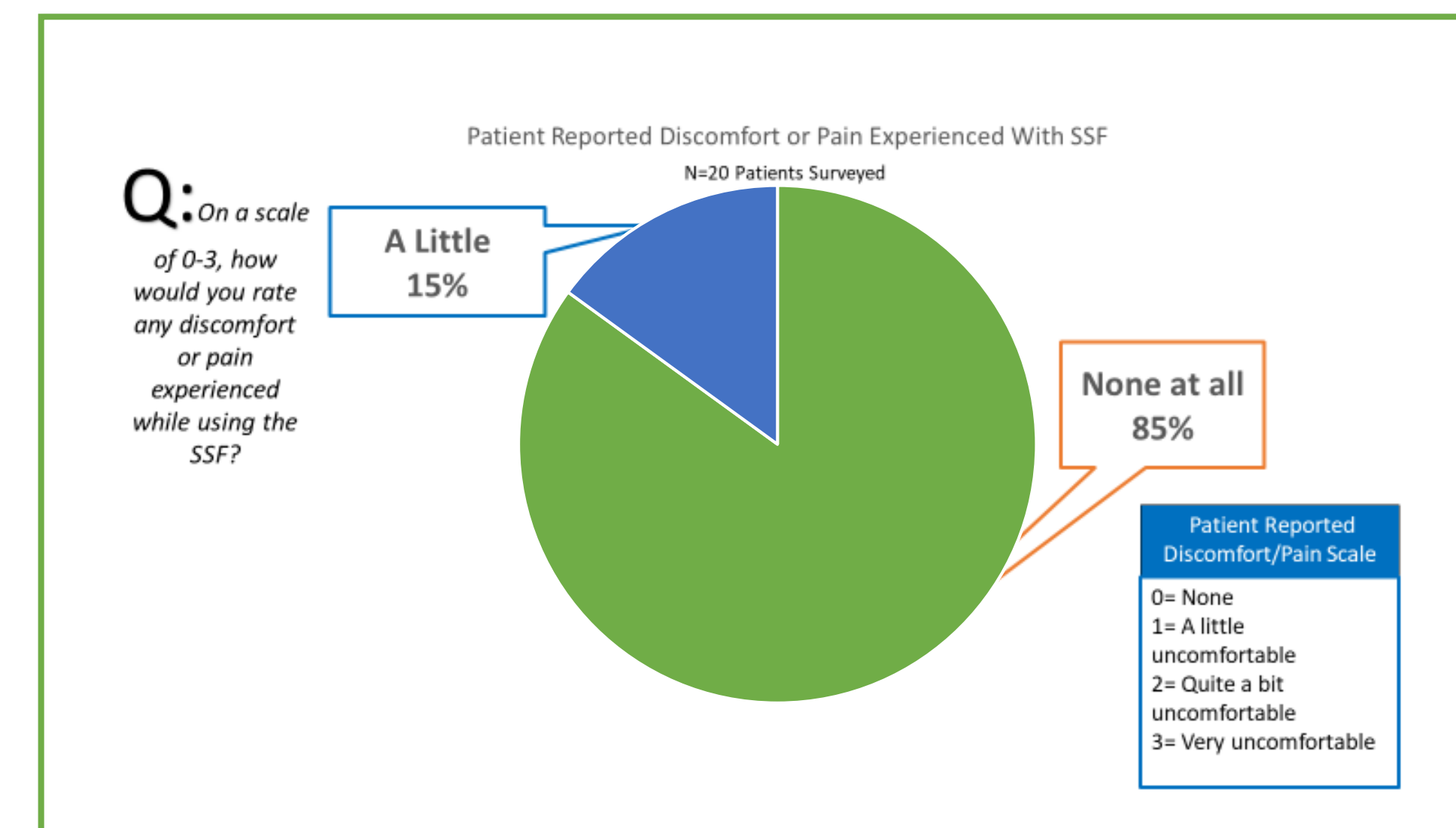
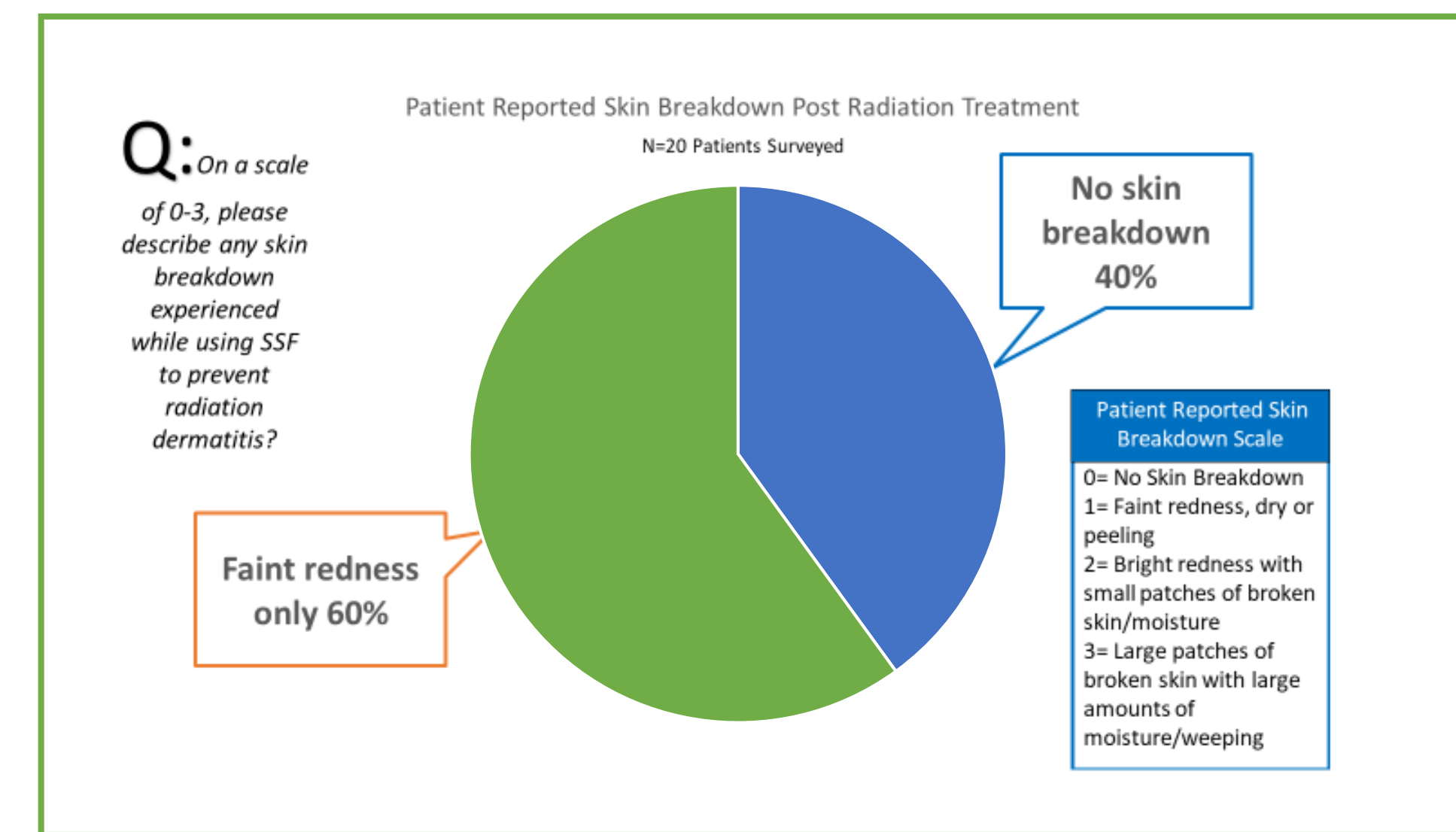
GRADE 1 (Mild)	GRADE 2 (Moderate)	GRADE 3 (Severe)	Grade 4 (Life-threatening)	Grade 5
Faint erythema or dry desquamation	Moderate to brisk erythema; patchy moist desquamation, mostly confined to skin folds and creases; moderate edema	Moist desquamation in areas other than skin folds and creases; bleeding induced by minor trauma or abrasion	Life-threatening consequences; skin necrosis or ulceration of full thickness dermis; spontaneous bleeding from involved site; skin graft indicated	Death

BC Cancer. Symptom management guidelines: Radiation dermatitis. Retrieved from <http://www.bccancer.bc.ca/nursing-site/Documents/16.%20Radiation%20Dermatitis.pdf>

SKIN ASSESSMENT DATA

Pt ID	Age	Radiation Treatment Cycles	Skin Breakdown
1	73	5	None
2	46	15	None
3	49	30	None
4	67	5	None
5	76	5	None
6	51	15	None
7	44	16	None
8	53	20	None
9	32	25	None
10	36	15	None
11	54	25	None
12	51	15	None
13	42	15	None
14	47	15	None
15	29	15	None
16	76	16* BOLUS	None
17	46	15	None
18	56	15	None
19	63	15	None
20	63	15	None

Patient Reported Outcomes



Results

- In this case series, no patients treated with SSF dressings demonstrated clinical signs of radiation induced skin breakdown.
- Patient reported outcomes were positive, with 40% of patients reporting no skin breakdown and 60% categorizing radiation related skin issues as faint erythema.
- 85% of patients reported 'no pain or discomfort at all' related to SSF.
- 50% of patients rated the impact of the SSF on day-to-day activities as 'no impact at all'.
- 100% of surveyed patients recommended this intervention for breast cancer patients undergoing RT.

Conclusion

- Positive results from this case series, along with similar results published in our prior case series of 14 patients using SSF during RT⁴, provides additional real-world evidence and patient reported outcomes to a growing body of clinical evidence for a simple intervention to prevent a debilitating skin condition resulting from RT.
- In our study, the application of SSF dressings to protect the skin during RT prevented radiation induced skin breakdown in 100% of breast cancer patients treated. Most patients reported minimal, or no radiation induced skin issues and 100% of patients were willing to recommend this intervention to other breast cancer patients undergoing RT.

Disclaimer: No sponsorship was received for this work. This case series was conducted outside the US. Use of the soft-silicone film for the prevention of RD has not been reviewed or cleared by US FDA.