

# Implementation of patient-reported outcomes to improve cancer care during radiation therapy

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## ABSTRACT

### INTRODUCTION

A diagnosis of cancer and its treatment impacts both the physical and psychosocial well-being of patients. Standardised scoring and assessment tools are commonly used in oncology to ensure consistent and comprehensive evaluation of patient health. However, these tools are often objectively administered from the clinician's perspective and fail to acknowledge the patient's subjective experience. Our clinic implemented patient-reported outcome measures (PROMs) into standard care for breast cancer patients undergoing curative radiation therapy, with a specific focus on radiation-induced skin reaction and patient distress.

### METHODS

The Radiation-Induced Skin Reaction Assessment Scale (RISRAS) and Distress Thermometer (DT) tools were selected as validated PROMs to implement. RISRAS is a 31-point scale including 5 patient-reported domains (each scored 0-3) and 4 nurse-reported domains (each scored 0-4). The DT is solely patient-reported (0-10) and also queries specific factors contributing to distress. PROMs were completed at baseline (planning CT), weekly (RISRAS) or bi-weekly (DT) during RT, and one week post-treatment. Cohort assessment scores were analysed across the reported time-points.

### RESULTS

Between May 2019 and May 2020, 66 consecutive patients completed 338 RISRAS and 187 DT assessments. Mean ( $\pm$ SD) combined RISRAS score was  $2.0\pm 2.4$ . RISRAS scores increased over time, with good correlation between patient- and nurse-reported domains. Mean DT score was  $2.1\pm 2.4$ . DT score decreased throughout treatment, then increased into follow-up. Considerable interpatient variation was seen in both RISRAS and DT scores as evidenced by large standard deviations. Fatigue was the most frequently reported factor contributing to distress (46% of assessments) followed by skin (32%).

### CONCLUSION

PROMs have enabled us to benchmark patient well-being throughout RT and compare perspectives from both patients and staff. While analysis indicates a generally low level of distress and skin-reaction impact, individual assessments have identified outliers and enhanced patient-centred care. Several opportunities have been identified for on-going practice development.