Patient-reported toxicities after breast radiotherapy merit understanding in order to inform decisions and target supportive care interventions.

As part of a collaborative quality improvement initiative, the Michigan Radiation Oncology Quality Consortium prospectively collects patient-reported outcomes data from women treated for breast cancer at 26 practices across the state. Of all 11,107 patients treated with lumpectomy and whole breast radiation therapy between 1/1/2012 and 12/31/2018, 287 refused patient surveys. We describe here the maximal toxicity reported by the 7689 patients who provided survey responses within 7 days of end of treatment and for whom we had sufficient data to determine dose-fractionation and treatment fields. Multivariable logistic regression models separately identified the individual and treatment characteristics associated with breast pain, fatigue, and breast symptom bother. Race differences in breast pain and bother existed despite controlling for multiple other factors, including age, body habitus, comorbidities, and treatment characteristics; further research is needed to understand what drives these differences.

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Fatigue was considered severe when rated as present “always” or “most of the time” over past four weeks.

Bother from multiple breast symptoms was considered frequent when score ≥3 on a scaled measure (range 0-4) averaging responses on four items derived from the Skindex.

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