

Patient-Reported Adverse Effects in Cancer Patients Undergoing Immune Checkpoint Inhibitor Therapy

Jack Sicat¹, Shams Shams¹, Sarah Asby², Xia Wen^{1,3}, Melanie Joy², Lauren Aleksunes^{1,3}

¹Department of Pharmacology & Toxicology, Ernest Mario School of Pharmacy, Rutgers University, Piscataway, NJ, ²University of Colorado, ³Environmental & Occupational Health Sciences Institute, Rutgers University, Piscataway, NJ

Immune checkpoint inhibitors (ICIs) have improved survival rates for patients with cancer but can also cause adverse events (AEs). These events may affect multiple organ systems and quality of life of a patient with varying severities. This study sought to evaluate patient-reported adverse effects over time in a prospective cohort study of adult oncology patients treated with ICIs at Rutgers University and University of Colorado Cancer Centers. Adult cancer patients initiating ICI treatment were given the Patient-Reported Outcomes Common Terminology Criteria for Adverse Events (PRO-CTCAE) electronic survey, consisting of 76 questions, on 1 to 4 visits over a 12-cycle treatment period to identify symptom patterns that develop. Forty-seven cancer patients completed the survey. The severity and frequency of symptoms reported were recorded at each treatment cycle. Scores were listed between a range of 0 to 4 to describe their experience of the symptoms. The most frequent symptoms reported were fatigue (76% reported), dry skin (60% reported), and dry mouth (58% reported) with an increase in frequency between cycles 2 and 3 of treatment. Despite high frequency reports of each symptom, fatigue (28%) had the greatest number of reports of either 3 or 4 when compared to dry mouth (18%) and dry skin (8%). Overall, the PRO-CTCAE survey is feasible and informative for longitudinal symptom monitoring among patients but does not have the ability to predict development of certain symptoms. A larger sample size is necessary to check if there is a stronger correlation between treatment and the symptoms. Supported by NJ ACTS CREST Program funded by NIH R25TR004777.

