**Materials and Methods**

We performed a retrospective review of medical records of patients prescribed isotretinoin for the treatment of acne from January 1, 2008, to June 1, 2016, at Brigham and Women’s Hospital and Massachusetts General Hospital. Charts were identified using the Research Patient Data Repository, a clinical data registry of all patients seen at Partners Healthcare, as previously described [7]. Each record was reviewed manually, and demographic data, including sex, race, ethnicity and weight, were extracted.

Monitoring laboratory tests obtained during treatment were recorded. Clinical notes were reviewed to determine total dose of isotretinoin (mg/kg), treatment duration, and reasons for and occurrence of treatment modification, defined as interruption or early termination. Interruptions were defined as physician, nursing, or patient documentation of a medication interruption of 28 or more days, followed by resumption of treatment without starting a new cycle. Early termination was defined as discontinuation of treatment prior to achieving optimal weight-based dosing of 120 mg/kg [8].

Grading of abnormalities was defined by the National Cancer Institute Common Terminology Criteria for Adverse Events as in prior literature [6, 9]. Patients with a grade 1 or above laboratory abnormality on baseline evaluation prior to isotretinoin initiation were identified. For patients who then modified treatment as a result of lab abnormalities during treatment, further chart review was performed to ascertain precise reasons for changes in management and relevant comorbidities.

Descriptive statistics were calculated for patient characteristics. Continuous variables were summarized using mean and standard deviation, and categorical variables were presented as percentages. This project was approved by the Partners Healthcare Institutional Review Board.