Research Objectives:
It is known that cancer patients showing psychosocial risk factors (e.g. social isolation, depression, anxiety) are at increased risk for not only worsened quality of life, but also poorer survival (1–3). Psychosocial oncology psychiatrists aim to address these needs, but these needs often go undetected, leading to underutilization (4-5).

We seek to investigate the correlation between patients seeing psychiatrists at BC Cancer and survival and determine how independent this effect is from possible confounders such as sex, disease site, mental health status, and initial cancer staging. This is a side project we are investigating while working on our other projects building our AI models.

Methods:
We currently possess a dataset of around 60,000 patients at BC Cancer, over a 1000 of which have seen psychiatry. We have collected and preprocessed different parts of this data, allowing us to fit Kaplan-Meier estimators on groups of patients that have or have not seen certain disciplines like psychiatry. As many different factors may contribute to survival differences, we are using cox-proportional hazard models to investigate the independence of seeing psychiatry from these other factors.

Interim Results:
We see a statistically and clinically significant survival benefit for patients seeing cancer psychiatry and are currently testing the independence of this from other factors.

We have so far analysed the impact of variables such as sex, age and mental health and have found the survival benefit continues to be robust.

We are currently working with medical oncology to clean data related to staging/metastatic status, and then will also examine the survival benefit with this considered.

Citations: