Trends in anti-cancer systemic therapy use and cost in Saskatchewan 2006-2013

Darryl Boehm\(^1\) and David Tran\(^2\)

\(^1\)Department of Oncology Pharmacy, Saskatchewan Cancer Agency, Regina, Saskatchewan CANADA;
\(^2\)Department of Epidemiology and Performance Measurement, Saskatchewan Cancer Agency, Saskatoon, Saskatchewan CANADA

**Introduction**

Health resources are a growing concern in Canada, especially those related to cancer care. Governments, cancer agencies, stakeholders and related parties who fund and organize cancer care are striving to provide patients with the latest therapies, despite limited financial resources.

The Saskatchewan Cancer Agency’s (SCA) pharmacy system contains comprehensive data on prescriptions dispensed for all injectable and take home cancer medications in adult, pediatric, outpatient, inpatient, BMT, and satellite infusion centre settings. Combined with our cancer registry, the SCA is uniquely positioned in Canada to provide comprehensive analysis on anti-cancer systemic therapy use, real-world cost-effectiveness of treatment-related outcomes, and health system performance, which in turn can help policy makers and stakeholders plan, budget, and align related resources and services.

**Objectives**

1. Describe trends in systemic therapy use by cost, therapy type, and cancer site from 2006-2013
2. Identify key drivers of overall growth of cancer drug spending
3. Identify cancer sites with the highest cost growth

**Methods**

- Data was obtained from the Saskatchewan Cancer Agency (SCA) pharmacy system for all prescriptions dispensed between 2006 and 2013
- Supportive care, clinical trial, Health Canada’s Special Access Programme, and manufacturer patient assistance program prescriptions were excluded from the analysis
- Dispensing records for patients aged ≥18 were linked with patient data from the SCA cancer registry using unique patient identifiers
- Patient characteristics were obtained from registry data and included patient sex, age at diagnosis, and primary cancer site defined using ICD-O-3 diagnostic codes; in cases where patients were diagnosed with multiple primary cancers, the last diagnosis before the patient’s first dispensing record in the observation period was used
- Drug costs (prior to any applicable contract rebates) obtained from the SCA pharmacy system were adjusted to 2013 dollars using the health care component of Statistics Canada’s consumer price index
- Crude growth rates in total annual expenditure, prescription volume and number of unique systemic therapy patients were calculated for all cancer sites, and then separately for the 20 most common cancer sites

For more information contact Darryl Boehm, Provincial Manager of Oncology Pharmacy Services, Saskatchewan Cancer Agency, at darrylboehm@saskcancer.ca