

## **Impact of Oral Anticancer Medication Pharmaceutical Care Program on Clinical Outcomes: A Retrospective Chart Review**

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**Background:** The Odette Cancer Center introduced an oral anticancer medication (OACM) pharmaceutical care program in April 2015. This program utilizes information and communication technology to provide remote toxicity assessment and education to patients prescribed OACMs using standardized algorithms. This study compared clinical outcomes among non-small cell lung cancer (NSCLC) patients treated with OACMs prior to and following OACM program implementation.

**Methods:** Patient-level data for NSCLC patients prescribed afatinib, erlotinib, gefitinib, osimertinib between January 2012-December 2018 were extracted from electronic medical records. Differences in OACM treatment interruptions, unplanned healthcare encounters, progression-free survival (PFS) and overall survival (OS) between the baseline and intervention group were assessed using logistic and Cox regression.

**Results:** Among the 269 patients identified, 122 (45%) received care during the baseline period and 147 (55%) after OACM program implementation. Patients exposed to the OACM program had more short term OACM holds (RR 1.89, p=0.042), fewer in-person unplanned encounters (RR 0.55, p=0.015), and higher rates of 36-month OS (RR 1.42, p=0.049). No difference in OACM dose reductions, OACM discontinuation, unplanned telephone encounters, or 36-month PFS were detected.

**Conclusion:** Patients who received virtual OACM pharmaceutical care had more short-term medication holds but preferable clinical outcomes compared to those who did not.

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