The aim of this study was to identify reasons for PMN in adult patients prescribed specialty oral oncolytic agents. Reasons for PMN are complex and may not be accurately captured using only prescription claims data. The aim of this study was to identify reasons for PMN in adult patients prescribed specialty oral oncolytic agents.

**METHODS**

Single-center, retrospective cohort analysis of prescriptions for specialty oral oncolytic agents that were:
- Prescribed by a Vanderbilt University Medical Center provider
- Prescribed to an adult patient
- Sent to Vanderbilt Specialty Pharmacy (VSP)
- Between January-December 2018

**RESULTS**

### Table 1. PMN Parameter Definitions

<table>
<thead>
<tr>
<th>Lookback window (LBW)</th>
<th>Minimum length of time prior to the index prescription in which a patient may revert to naïve status, and thus a potential instance of PMN</th>
</tr>
</thead>
<tbody>
<tr>
<td>Duplicate window (DW)</td>
<td>Length of time in which 2 sequential prescriptions can be considered duplicate</td>
</tr>
<tr>
<td>Fill window (FW)</td>
<td>Duration of time a fill of an eligible prescription needs to occur in order to not be considered a case of PMN</td>
</tr>
<tr>
<td>PMN-eligible prescription</td>
<td>No fill of any oncology medication in 180 day LBW. No duplicate prescription sent within 2 days. No prescription reroute to external specialty pharmacy (SP) within 2 days</td>
</tr>
</tbody>
</table>

**Figure 1. Primary medication non-adherence model**

- **Lookback window (LBW)**: 180 days
- **Duplicate window (DW)**: 2 days
- **Fill window (FW)**: 30 days
- **PMN-eligible prescription**: No fill of any oncology medication in 180 day LBW. No duplicate prescription sent within 2 days. No prescription reroute to external specialty pharmacy (SP) within 2 days

**Figure 3. Prescription Eligibility and PMN Rates**

- 4,482 Prescriptions reviewed
- 1,004 Eligible prescriptions
- 198 Potential instances of PMN
- 806 Not PMN
- 138 Prescriptions externally routed
- 668 Prescriptions filled on time
- 161 Misidentified as PMN
- 37 True instances of PMN

**Figure 4. Reasons for Misidentified PMN (N=161)**

- Rerouted to external SP
- Manufacturer fill
- Duplicate outside of DW
- Non-onc/heme condition
- Inpatient fill
- Clinical trial medication
- Prescribed early
- Other*
  - Filled by VSP

**Figure 5. Reasons for True PMN (N=37)**

- Patient decision
- Medication change
- Clinical decline
- Death
- Other*
- Dose change
- Financial

**Table 2. Demographics for True PMN Cases**

- **Baseline Characteristics**
  - **M ± SD** or n (%) of PMN cases
  - **Age, years**: 65 ± 16 (n=37)
  - **Gender, Male**: 25 (68)
  - **Race, Caucasian**: 32 (87)
  - **Current or former smoker**: 20 (54)
  - **Charlson Comorbidity Index Score**: 7.1 ± 3.6

**CONCLUSIONS**

- The algorithm by which PMN is traditionally defined grossly overestimates the true rate of primary medication non-adherence.
- As only 18.6% of potential PMN prescriptions were true PMN, there is an inherent limitation in using only raw PMN as a quality metric for specialty pharmacies.
- The rate of PMN for oral oncolytics at a HSSP was very low and mostly due to medication change, clinical decline, or patient decision.

**REFERENCES**