Purpose

• To measure the impact of a pharmacist-led outreach program that aims to improve TKI adherence and Polymerase Chain Reaction (PCR) testing compliance in CML patients.

Methods

• The program was executed in a regional health plan with approximately 700,000 covered lives.
• Patients with a diagnosis code for CML who utilized dasatinib, imatinib, nilotinib, ponatinib, or bosutinib were identified using pharmacy and medical claims.
• Adherence is determined by proportion of days covered (PDC), which is calculated from the date of the first TKI order to the date of the last TKI order. The adherence goal is PDC ≥85%
• Pharmacists conducted telephonic outreaches to patients monthly and provided every three months to discuss and resolve adherence barriers for both TKI therapy and PCR testing.
• Providers were also sent quarterly reports summarizing their patients’ adherence to TKI therapy and PCR testing trends.
• Pharmacy and medical claims data were analyzed one year before and after the initiation date to assess impact on adherence and PCR testing utilization.
• Baseline Period: 4/1/2014-3/31/2015
• Intervention Period: 4/1/2015-3/31/2016

Results - TKI Adherence

• Adherence barriers to TKI therapy were identified during patient outreach. Approximately 72% of patients reported having at least one barrier.
• Adherence barriers to TKI therapy in the order from most to least frequent:
  - Side effects (including nausea/vomiting, diarrhea, muscle soreness, fatigue, etc.)
  - Cost
  - Lack of authorization approval delays

Discussion

• The CML Adherence and Assessment Program led to a 6.5% relative increase in proportion of patients who were able to achieve a PDC of ≥85%.
• Based on provider reported information, 71% of patients should have received PCR testing every three months. However, based on claims analysis, only 56% of providers and 22% of patients are ordering and receiving every three months testing, respectively.

Conclusions

• Following the initiation of the CML Adherence and Assessment Program on 4/1/2015, an increase in average adherence proportion of patients reaching adherence goal, and utilization of PCR testing have been observed.
• Although the proportion of patients receiving at least four annual PCR tests increased, many patients were still not being tested as frequently as recommended by guidelines. Additional provider and patient education is warranted to improve awareness and compliance to monitoring testing.
• Continued outreach and intervention to resolve cited barriers will be necessary to further improve quality of care in this population. Long-term follow-up will be needed to assess impact on clinical and financial outcomes.

Results - PCR Testing

• Adherence barriers to PCR testing were identified during patient outreach. Approximately 26% of patients reported having at least one barrier.
• Adherence barriers to PCR testing in the order from most to least frequent:
  - Cost of testing
  - Provider is unaware of testing
  - Outworked outreaches to patients monthly and to resolve adherence barriers for both TKI therapy and PCR testing.
  - Average PDC Per TKI:
    - Baseline: 68%
    - Intervention: 76%

Proportion of Members Utilizing NCCN Recommended Number of PCR Tests

<table>
<thead>
<tr>
<th>Patients Received ≥ 4 PCR Tests</th>
<th>Baseline</th>
<th>Intervention</th>
<th>Relative Increase</th>
</tr>
</thead>
<tbody>
<tr>
<td>18%</td>
<td>67%</td>
<td>62%</td>
<td>5%</td>
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Five out of seven top providers (treating at least three CML patients at any time) had a 16% increase in mean number of PCR tests prescribed during the intervention period compared to the baseline period.

References


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