Project Title:
Coordination of care for patients initiating oral oncolytic therapy

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Institution: Tennessee Oncology
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Team Members

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Our practice EMR had inaccurate C1-D1 documented on 90% of patients beginning oral oncolytic therapy in the baseline period of January 1, 2018 through June 30, 2018.

As a result of inaccurate C1-D1, 70% of patients had initial MD follow up visits scheduled at a time interval less than optimal time for assessment of drug specific toxicity.
Tennessee Oncology is a community-based practice of more than 95 physicians at 29 locations throughout the middle and southeast Tennessee regions.

Park Pharmacy is the centralized, specialty accredited, closed-door pharmacy for Tennessee Oncology. Park provides oral oncolytic medications to patients at all clinic locations.

A new EMR was implemented practice-wide in June 2017.
Current State: EMR workflow for entering new oral oncolytic treatment plan
Inaccurate C1-D1 of oral oncolytic therapies

PBM/Insurers
- Time for Prior Auth approval
- Step Edit/Formulary preference

Mandates to outside Specialty Pharmacy
- Plan Pharmacy Network Design
- Affordability / Manufacturer PAP for free drug
  - Lack of Foundation Funding for MC
  - Uninsured Patients
- Unknown fill and shipment times

Patient Factors
- Inability to reach patient by phone
- Signature requirements for paperwork
- Knowledge of insurance
- Timely provision of financial info

Practice Factors
- Assumption of 7 days processing time built into treatment plans
- Training content and resources
- Variability among individual MD processes
- Lack of EMR functionality to support oral therapy
- Human Error
Diagnostic Data

- All patients at a single clinic of 4 medical oncologists and 1 gynecologic oncologist who initiated oral oncolytic therapy between January 1 to June 28, 2018.

- We performed an EMR query of oral oncolytic treatment plans to identify EMR indicated C1-D1.

- We also performed a pharmacy system query to identify the date of medication receipt and education, the presumptive C1-D1.

- 10 patients were identified in the defined baseline time period.

- Individual chart review was performed to validate data.
Increase the accuracy of C1-D1 documentation in our practice EMR to 80% of patients starting oral oncolytic therapy between October 10th – November 19th. Oral treatment plans within the EMR contain pre-specified MD clinic visits based on drug specific toxicity. With accurate C1-D1, 60% of MD follow up visits will be scheduled at the appropriate time to assess drug toxicity and tolerability.
Measures

• All patients beginning oral oncolytic therapy October 10 through November 19, 2018.

• Calculation methodology:
  • EMR C1-D1 date comparison to medication receipt date per pharmacy system.
  • Number of days from date of medication receipt, C1-D1, to scheduled MD follow up visit.

• Data source: Practice EMR and Pharmacy processing system

• Data collection frequency: Baseline and then daily during the 6 week PDSA

• Data quality(any limitations): EMR treatment plan not being entered.
## Prioritized List of Changes (Priority/Pay –Off Matrix)

<table>
<thead>
<tr>
<th>High Impact</th>
<th>MD Engagement &amp; Training</th>
<th>Integration of EMR and pharmacy systems</th>
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<tbody>
<tr>
<td>Clarity of process</td>
<td>Define roles of clinic &amp; pharmacy staff</td>
<td>MD Incentives</td>
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<tr>
<td>Low Impact</td>
<td>Patient information on pharmacy and next steps</td>
<td>Standardize means of communication between clinic and pharmacy</td>
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### Ease of Implementation

- **Easy**
- **Difficult**
# PDSA Plan (Test of Change)

<table>
<thead>
<tr>
<th>Date of PDSA Cycle</th>
<th>Description of Intervention</th>
<th>Results</th>
<th>Action Steps</th>
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| 10/10/18           | 1. Develop a new standardized EMR process of ordering oral oncolytic treatment plans (TP)  
2. Build “ASCO QTP” version of oral regimens, provide access and educate MDs on new ordering process  
3. MD follow up visit replaced with “Hold” activity that is activated at the determination of C1-D1  
4. Educate MD and staff on new clinic flow for patients initiating oral therapy | 1. Accuracy of EMR documentation of C1-D1 & subsequent MD follow up visit  
2. MD adoption of new EMR standard process for ordering oral oncolytic TP  
3. Patient experience expanded to include pharmacy staff as point for patient education  
4. 90% of patients have C1D1 accurately documented on EMR | 1. Build new “ASCO QTP” TP for oral oncolytic therapies  
2. MD, clinic and pharmacy staff training on new TP content & workflow  
3. Implementation of newly developed patient education resources  
4. Pharmacy coordination with clinic staff for scheduling MD follow up |
Process Measure: I-Chart
Scheduling  C1-D1

I-Chart of Difference Between Documented and Actual Cycle 1 Day 1 in EMR

- Mean
- UCL
- LCL

Days Between EMR Indicated C1D1 to Actual C1D1

Individual Patients

ASCO Quality Training Program
Outcome Measure: Run Chart
MD Follow up Visit

Discrepancy Days Between Actual and Target Follow Up Visit
Outcome Measure: Bar Graph
MD Follow up Visit

Days Between Actual C1D1 and Follow Up Visit by Drug

- Days Between Medication Receipt to MD follow up clinic visit
- Target Days Between Medication Receipt to MD follow up clinic visit

Individual Patient

SDS
Conclusions

EMR treatment plan C1-D1 was accurate for 90% of patients as a result of changes to internal standard operating procedure through both our EMR and pharmacy workflow.

Follow-up visits were appropriately timed to the drug specific EMR treatment plan in 20% of patients. The 60% goal was not met.
Considerations of future implementation

- Scalability of the developed process
- Physician buy in and trust of the proposed workflow
- Physician and staff training and implementation
- Pharmacy staff allocation
- Coordination of Care
- Centralized Scheduling
Materials Developed

- Pharmacy leaflet for exam room display
- Pharmacy business cards
- Physician satisfaction survey pre and post implementation
AIM: Improve the accuracy of C1-D1 documentation within the EMR to 80% for patients beginning oral therapy to ensure appropriateness of physician follow up visits for medication assessment of tolerability and toxicity are appropriately timed in at least 60% of patients.

INTERVENTION: Treatment plans (TP) for oral regimens were modified within the EMR to include a hold activity. When initiating new oral therapy, MD entered the TP and provided pharmacy leaflet to the patient. The TP hold activity alerted check out staff that an oral therapy was being initiated. In lieu of scheduling a follow up visit, check out staff provided information on next steps and provided the developed business card containing the same information. When the RX was processed and pharmacists provided initial drug education, therapy start date was confirmed, the treatment plan was moved to corresponding date within the EMR, C1-D1, and coordinated contact of patient and check out staff. The check out staff removed the hold activity and scheduled MD follow up visit based date presented within the treatment plan.

RESULTS:

- 90% of new patient had C1-D1 documented within the EMR
- 20% of subsequent MD follow up visits were at the drug specific interval for optimal assessment of tolerability and toxicity

I-Chart Difference between Actual and Documented C1-D1

CONCLUSIONS:

- The 80% goal of C1-D1 accuracy was met, improving from 10% to 90%
- 20% of MD follow up visits were scheduled at the optimal time. While short of the 60% goal, the average deviation from target date decreased 42% from 8.7 to 5.1 days.

NEXT STEPS:

- Expansion to 4 additional clinic sites will be planned over the next 90 days
- MD champions will be identified for each site
- At the completion of 4 additional PDSA cycles, determination will be made for corporate viability and recommendation presented to practice leadership