Impact of Pharmacist Intervention on Patients Initiated on Oral Oncolytics: An Experience at an Academic Medical Center

Indiana University Health

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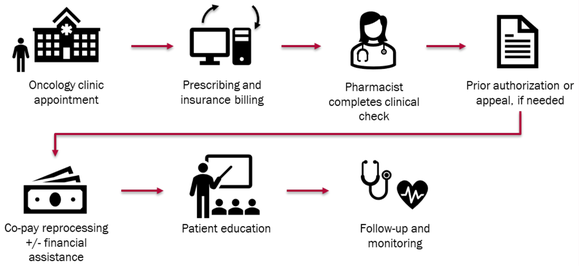
INTRODUCTION

- Oral oncolytics as part of the treatment of cancer has created a paradigm shift away from the traditional intravenous therapies administered in outpatient infusion centers.
- These agents offer patients increased flexibility in work and personal life and are generally considered to be less invasive therapies.
- Increased flexibility also places the responsibility of adherence on to the patient
- This study will provide a real-world assessment of the incidence and management of complications of oral oncolytics in patients on one of four oral oncolytic agents: sorafenib, lenvatinib, regorafenib, and cabozantinib

Oral chemotherapy process at IU Health:



STUDY OBJECTIVES

Primary Objective:

Evaluate the impact of clinical pharmacist follow-up and intervention on rates of therapy discontinuation, therapy interruption, and dose reductions during the initial 90 days of treatment

Secondary Objective

Describe the types and frequencies of interventions made by pharmacists

Statistics:

Baseline characteristics and intervention frequencies will be evaluated by descriptive statistics. Fisher's Exact test will be used for the primary endpoint

METHODS

Design:

Prospective, single-center, cohort study

Interventions:

1) Drug-drug interactions
2) Lab monitoring or laboratory test needed
3) Medication dose change
4) Supportive care recommendation
5) Identification of errors during transcription

Inclusion	Exclusion
• Age ≥18 years • Diagnosis: hepatocellular carcinoma (HCC), renal cell carcinoma (RCC), or colorectal cancer (CRC) • Treatment: sorafenib, lenvatinib, regorafenib, or cabozantinib • Patients who fill oral oncolytic prescriptions with IUH Specialty Pharmacy	• Patients who fill oral oncolytic prescriptions at external specialty pharmacies

Timeline for patient contact and interventions

Study group	Baseline	Week #1	Week #2	Week #3	Week #5	Week #7	Week #11
Retrospective cohort Oct 2019 – Dec 2019	Initial fill and counseling			Check-in and refill assessment		Check-in and refill assessment	Check-in and refill assessment
Prospective cohort Oct 2020 – Dec 2020	Initial fill and counseling	X Check-in	X Check-in	Check-in and refill assessment	X Check-in	Check-in and refill assessment	Check-in and refill assessment

RESULTS

Baseline Characteristics

	Retrospective (n=8)	Prospective (n=7)
Gender (male), n (%)	4 (50)	6 (85.7)
Age (yr), mean (+/-SD)	68 (11.0)	69.6 (7.7)
ECOG PS, n (%)		
0	0 (0)	2 (28.6)
1	7 (87.5)	2 (28.6)
2	1 (12.5)	3 (42.9)
≥3	0 (0)	0 (0)
Diagnosis, n (%)		
HCC	6 (75)	4 (57.1)
RCC	1 (12.5)	2 (28.6)
CRC	1 (12.5)	1 (14.3)
Medication, n (%)		
Sorafenib	3 (37.5)	0 (0)
Lenvatinib	2 (25)	5 (71.4)
Cabozantinib	2 (25)	1 (14.3)
Regorafenib	1 (12.5)	1 (14.3)

Outcomes

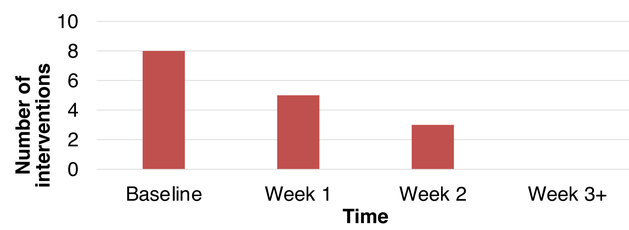
	Retrospective (n=8)	Prospective (n=7)	P-value
Disruptions, n(%)	6 (75)	3 (42.9)	p=0.315
Reductions, n(%)	6 (75)	2 (28.6)	p=0.132
Discontinuations, n(%)	3 (37.5)	5 (71.4)	p=0.315

Interventions in Prospective Cohort

	n	%
Drug-drug interaction identification	2	28.6
Monitoring or lab test needed	3	42.9
Medication dose change	1	14.3
Supportive care recommendation	7	100
Errors during transcription	2	28.6

RESULTS

Timing of interventions in the Prospective cohort



Intervention	Baseline	Week 1	Week 2
Lab/general monitoring	1	1	1
Drug-drug interaction	1	1	-
Dose change	-	-	1
Error in transcription	1	-	-
Supportive care	5	3	1

CONCLUSIONS

- No statistically significant difference in the primary endpoint was observed between cohorts, however, pharmacists provided interventions relating to treatment in 100% of patients
- Timing of interventions made may indicate current practice style provides optimal contact with patients during initial 90 days of treatment
- The findings of this study are limited by small sample sizes and differ
- More efforts to define the optimal follow-up with patients is required to best prepare patients for treatment with oral oncolytics

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