

# A TARGETED APPROACH TO REDUCING RATES OF DISCONTINUATION AND DOSE REDUCTION IN PATIENTS RECEIVING SORAFENIB OR REGORAFENIB

Ryan Nix, Pharm D | Brooke Looney, Pharm D, CSP | Carson Lamb, Pharm D, CSP | Megan Peter, PhD | Autumn Zuckerman, Pharm D, BCPS, AAHIVP, CSP  
Specialty Pharmacy, Vanderbilt University Medical Center

## BACKGROUND

- Sorafenib and regorafenib are oral multikinase inhibitors that treat certain cancers, but adverse events are common and often result in treatment discontinuation or dose reduction.<sup>1,2</sup>
- Pharmacists have the potential to monitor and address patients' adverse reactions, preventing dose reduction or treatment discontinuation.

## OBJECTIVE

To assess the impact of a pharmacist intervention on rates of sorafenib and regorafenib treatment discontinuation and dose reduction due to adverse reactions.

## METHODS

- Historically controlled study of adult patients prescribed sorafenib or regorafenib by a Vanderbilt Ingram Cancer Center provider using Vanderbilt Specialty Pharmacy.

Group	Date Therapy Initiated	Pharmacist Counseling
Control Group (CG)	Sep 2016-Aug 2017	4 phone calls in 90 days
Intervention Group (IG)	Sep 2017- Aug 2018	Welcome Kit + 7 phone calls in 90 days

FIGURE 1. INTERVENTION CALL SCHEDULE

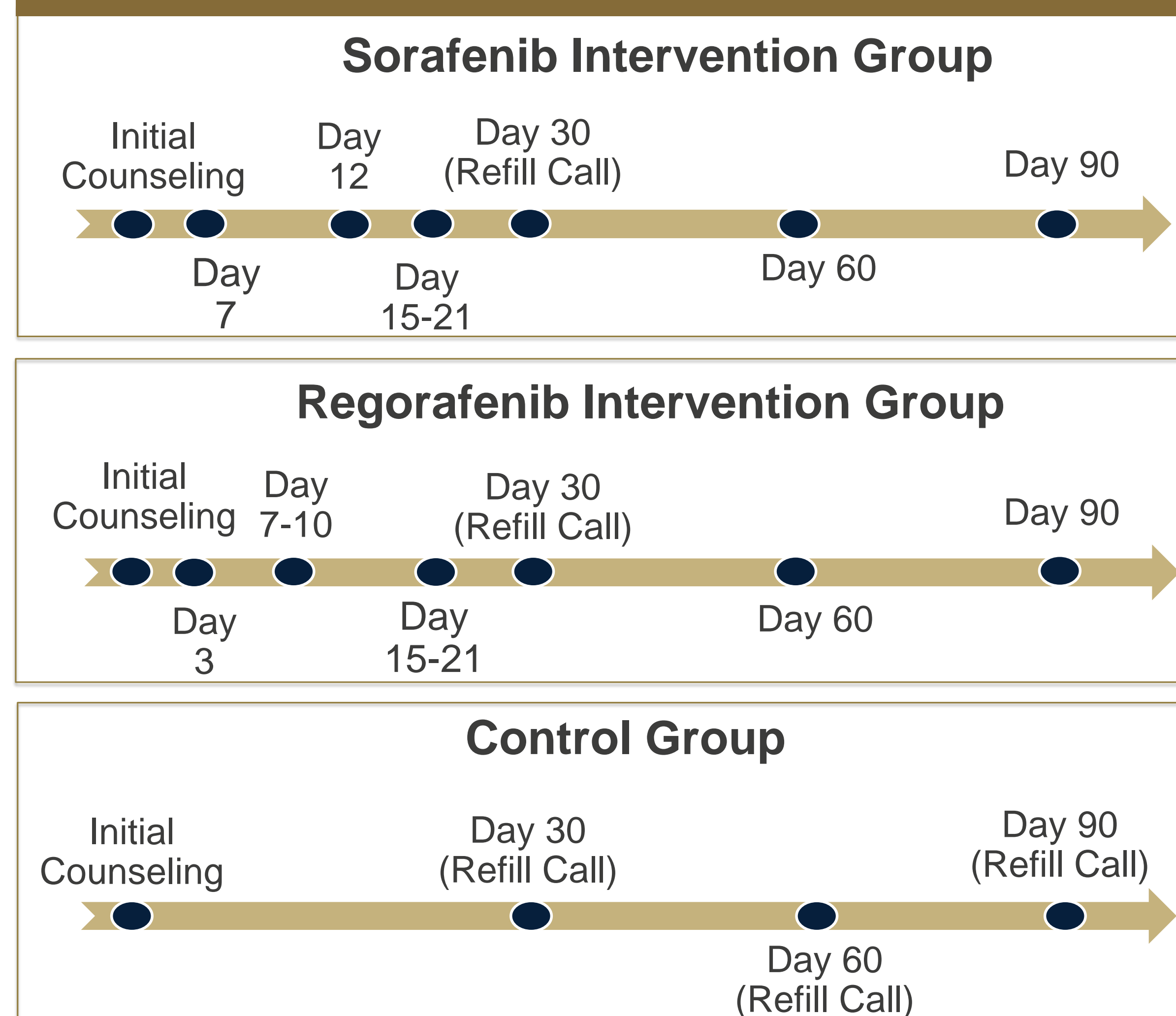


TABLE 2. SAMPLE CHARACTERISTICS

Characteristic	M [SD] or n(%)	
	CG (n=17)	IG (n=16)
Age, years	64 [15.2]	59 [17.1]
Gender, female	9 (53)	11 (69)
Race, White	17 (100)	12 (75)
Indication		
AML	7 (41)	3 (19)
HCC	6 (35)	6 (44)
Desmoid Tumor	2 (12)	5 (31)
Other*	2 (12)	1 (6)

\*DTC, GIST, and Metastatic NSCLC  
Note: AML= acute myeloid leukemia, HCC= hepatocellular carcinoma, DTC= differentiated thyroid carcinoma, GIST= gastrointestinal stromal tumor, NSCLC= non-small cell lung cancer.

TABLE 1. COUNSELING TOPICS

Topic	Assessment Number					
	1	2	3	4	5	6
Pregnancy, lactation, and contraception status	•					
Medication dosing, administration, and storage	•	•				
Common side effects and mitigation strategies	•	•				
Starter kit contents	•	•				
Drug-drug interactions	•	*	*	*	*	*
Confirm start of therapy	•					
Incidence of side effects	•	•	•	•	•	•
Communication with healthcare provider	*	*	*	*	*	*
Blood pressure monitoring	•	•	•	•	•	•
Best time for next call	•	•	•	•	•	•
Patient experience/ feelings	•	•	•	•	•	•
Missed doses		•	•	•	•	•
Current supply/ need for refill			•	•	•	•

\*= as needed

## RESULTS

FIGURE 2. PERCENT OF PATIENTS MAINTAINING THERAPY IN 90 DAYS AFTER TREATMENT INITIATION

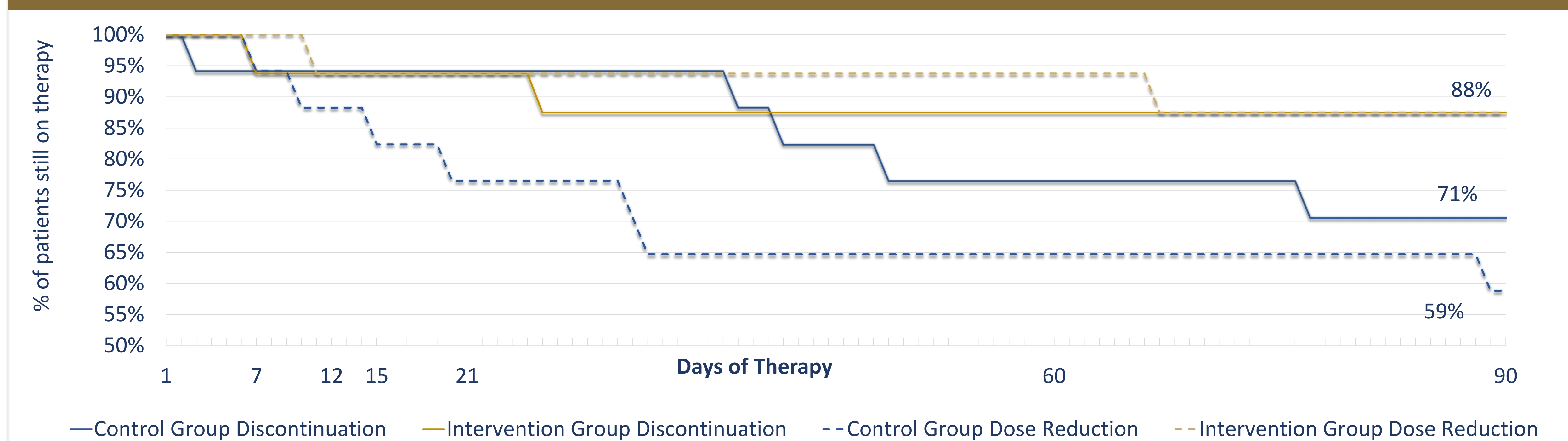
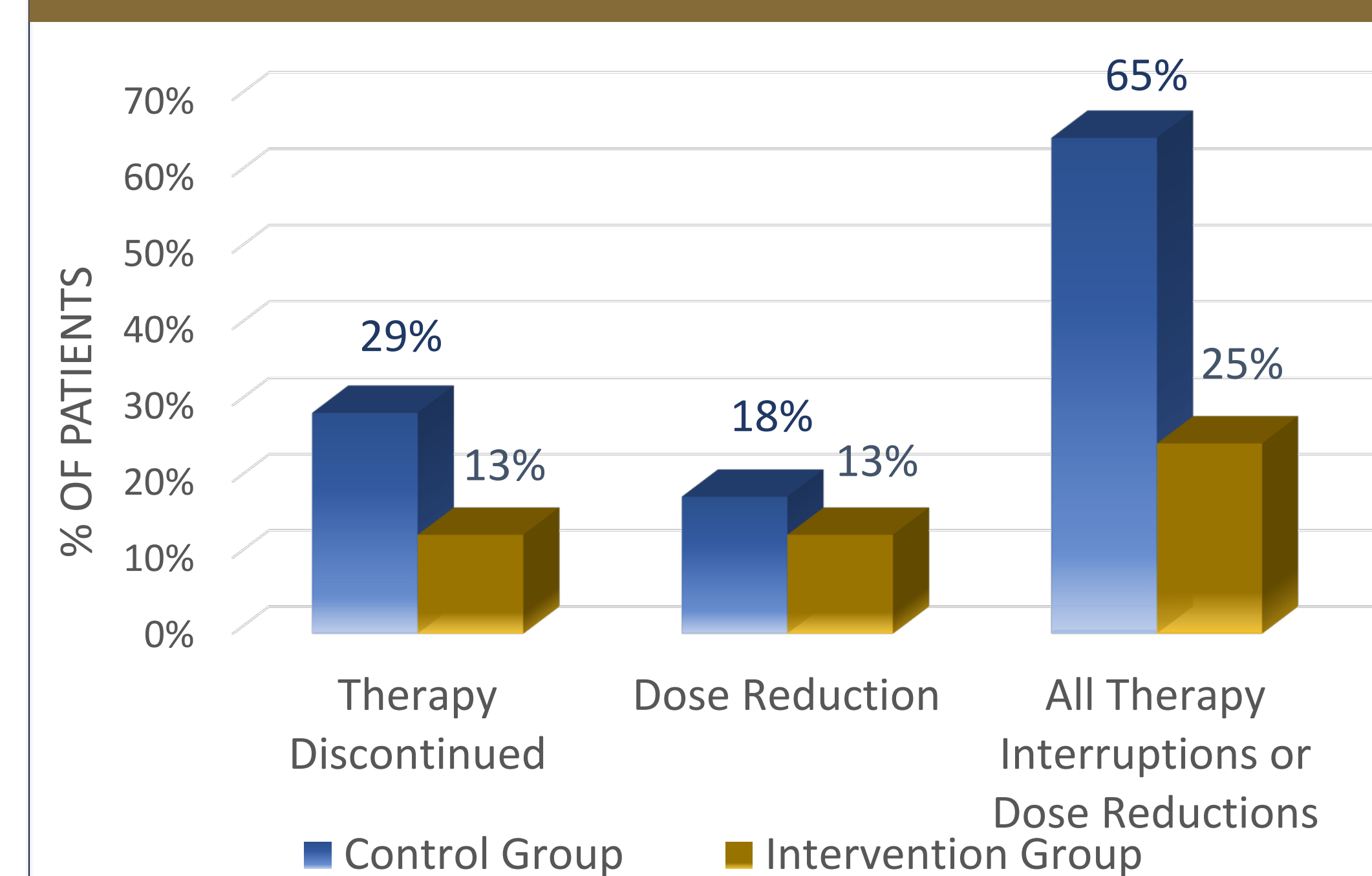
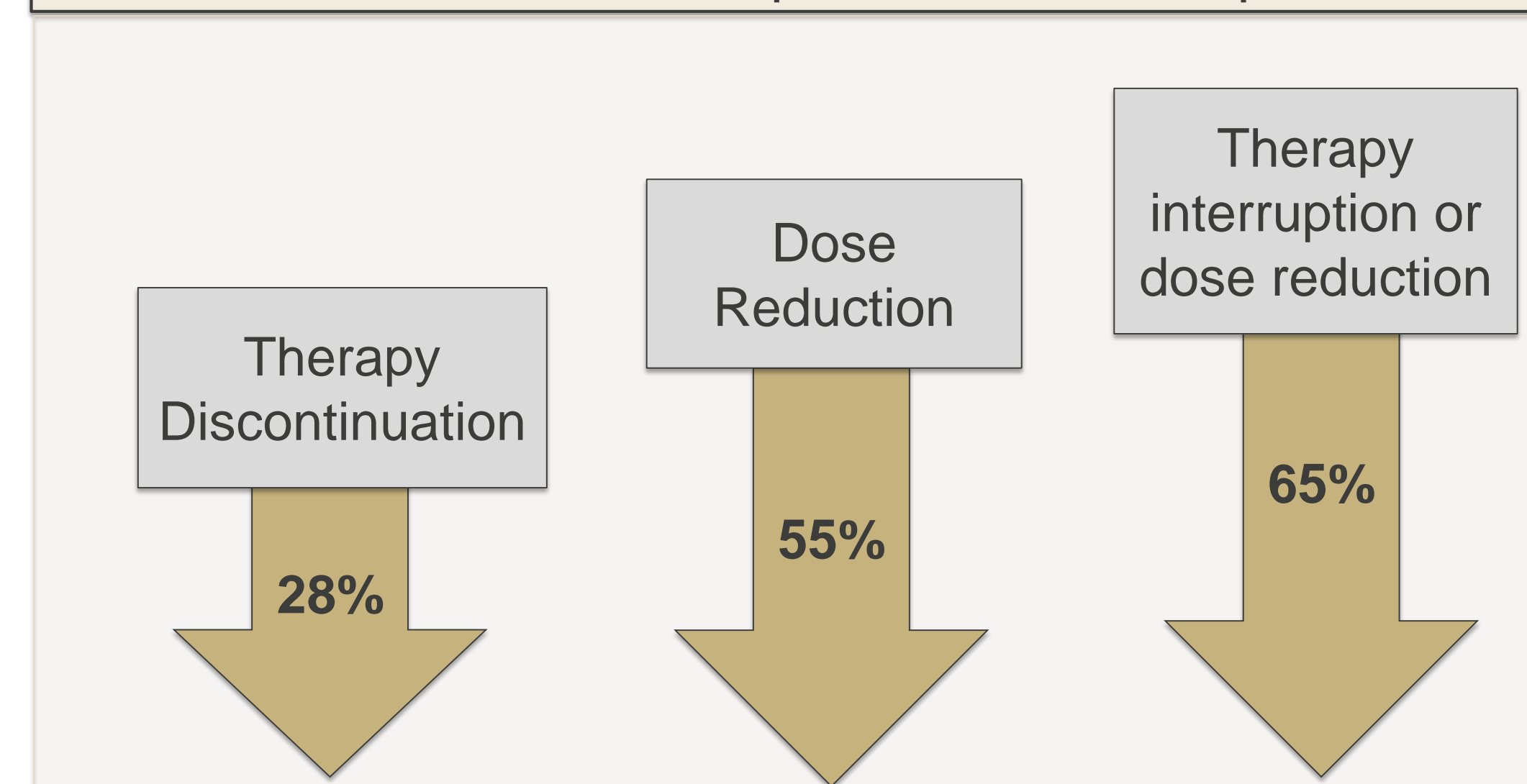


FIGURE 3. RATES OF THERAPY INTERRUPTION OR DOSE REDUCTION WITHIN 90 DAYS



Intervention Group vs. Control Group



Intervention Group:

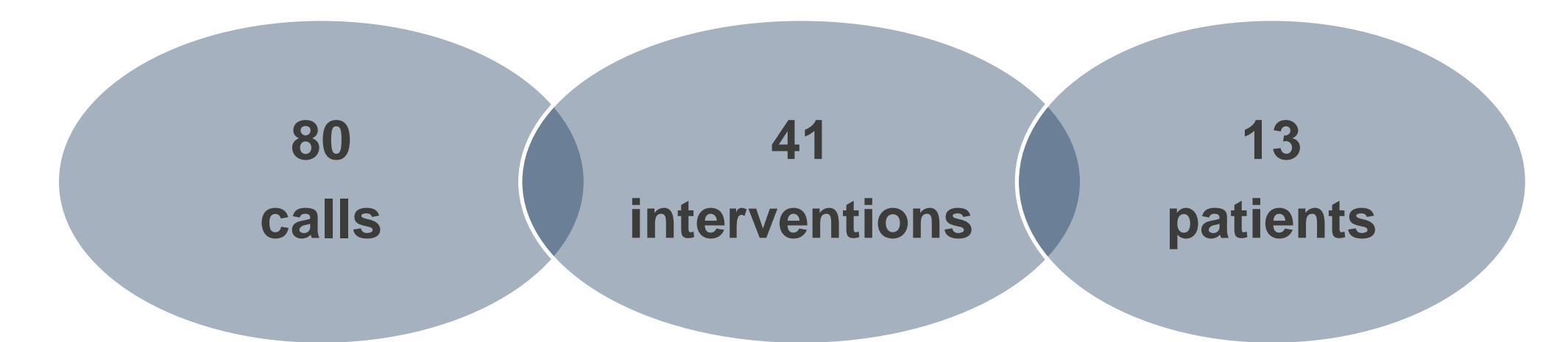


TABLE 3. PHARMACIST INTERVENTIONS

	n	(%)
Discussed strategies for mitigating adverse effects <sup>1,2</sup>	26	(63)
Reviewed dose	6	(14)
Screened for drug interaction	3	(7)
Communicated information to healthcare provider	3	(7)
Provided additional supplies from starter kit	3	(7)

## CONCLUSION

Tailored clinical monitoring of oral multikinase inhibitors was effective in detecting and mitigating adverse reactions, enabling patients to remain on therapy longer and without dose modification.

### References:

- Krishnamoorthy, Saravanan K., et al. "Management of Regorafenib-Related Toxicities: A Review." *Therapeutic Advances in Gastroenterology*, Sept. 2015, pp. 285-297.
- Brose Marcia S., Frenette Catherine T., et al. "Management of Sorafenib-Related Adverse Events: A Clinician's Perspective." *Seminars in Oncology*, Volume 41, Supplement, Feb. 2014, pp. S1-S16.

### Acknowledgements:

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