



**PICK THE BEST PATH: OPTIMIZING PIK3CA
MUTATION-TARGETED HR+/HER2-PIK3CA-
MUTATED THERAPY AND
HYPERGLYCEMIA MANAGEMENT**



ANNENBERG CENTER FOR HEALTH SCIENCES
AT EISENHOWER
Imparting knowledge. Improving patient care.

This activity is supported by an educational grant from AstraZeneca.

Breast Cancer

- Most common cancer among women in the US¹
 - 2nd leading cause of cancer death
- Classified according to molecular characteristics²
 - HR+/HER2- most common (70%)
 - 5-year survival rate: 100% (localized), 36.5% (metastatic)
- Novel therapeutic strategies that address resistance and improve outcomes are needed³

HR+/HER2-, hormone receptor-positive/human epidermal growth factor receptor 2-negative



PIK3CA Mutations

- Phosphatidyl-3-kinase (PI3K) signaling pathway involved in cell growth and proliferation¹
- ~40% of patients have a PIK3CA mutation²
- PIK3CA mutations lead to abnormal activation of the PI3K/AKT/mTOR signaling pathway² resulting in:
 - Endocrine therapy resistance
 - Poor prognosis



Blood Glucose Monitoring Frequency

Medication*	Initial monitoring** (first 4 weeks)	Ongoing monitoring** (week 5 onward)
Alpelisib ¹	Weekly x 2 weeks, then monthly and as clinically indicated	Monthly and as clinically indicated
Inavolisib ²	Once every 3 days x 1 week, then weekly x 3 weeks	Once every 2 weeks x 8 weeks, then monthly thereafter and as clinically indicated
Capivasertib ³	On day 3 or 4 of the dosing week on weeks 1, 2, and 4	On days 3 or 4 of the dosing week on weeks 6 and 8, then monthly and as clinically indicated

*Baseline HbA1c and fasting blood glucose required for each medication; HbA1c monitoring recommended every 3 months thereafter

**More frequent monitoring may be required in patients with risk factors for hyperglycemia and those who develop hyperglycemia on treatment



PI3K and AKT Inhibitor Toxicities*

	Hyperglycemia		Diarrhea		Rash		Stomatitis		Fatigue	
	Any grade	Grade 3-4	Any grade	Grade 3-4	Any grade	Grade 3-4	Any grade	Grade 3-4	Any grade	Grade 3-4
Alpelisib ¹	63.7%	36.6%	57.7%	6.7%	53.9%	20.1%	24.6%	2.5%	24.3%	3.5%
Inavolisib ²	58.6%	5.6%	48.1%	3.7%	25.3%	0%	51.2%	5.6%	23.5%	0%
Capivasertib ³	16.3%	6.8%	72.4%	9.3%	38%	12.1%	14.6%	2%	20.8%	0.6%

*Trials are not head-to-head comparisons



Good communication among the interprofessional, multidisciplinary care team and the patient is essential



ANNENBERG CENTER FOR HEALTH SCIENCES

AT EISENHOWER

Imparting knowledge. Improving patient care.