

Factors Influencing CDK4/6 Inhibitor Adherence

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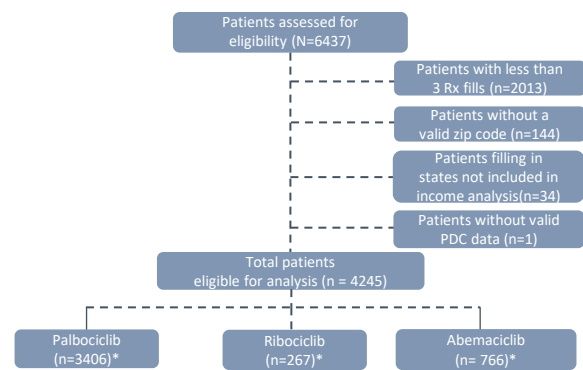
BACKGROUND

- The National Comprehensive Cancer Network recognizes CDK4/6 inhibitors palbociclib, abemaciclib, and ribociclib in combination with aromatase inhibitors or fulvestrant as first-line therapy regimens in the treatment of HR-positive/HER2-negative advanced or metastatic breast cancer.¹
- Several reports describe adherence and persistence with oral oncolytics and with CDK4/6 inhibitors specifically, but there are limited reports that describe factors associated with adherence for this drug class.²⁻⁴
- The primary objective is to understand factors impacting patient adherence to CDK4/6 inhibitors.

METHODS

- Multicenter, retrospective observational analysis of adult patients new to therapy with a CDK4/6 inhibitor from 35 U.S. health systems with integrated specialty pharmacies (HSSPs) working with ShieldsRx.
- Inclusion criteria for patients was treatment initiation within the last four years, ≥3 prescription fills for a CDK4/6 inhibitor, and currently on therapy or discontinued.
- Descriptive statistics were used to analyze the groups which were stratified by drug, age, insurance type, median household income, and geographic region (Midwest, Northeast, South, West).
- Significance test (Kruskal-Wallis) and post-hoc test (Dunn) were used to assess differences in PDC between drug groups stratified by geographic region.
- Adherence was evaluated by calculating the proportion of days covered (PDC), defined as the total days' supply divided by the total possible days covered.
- Groups were analyzed by mapping state of residence median household income with average PDC.

Figure 1: Study Inclusion Determination



*Will not add to n, as some patients were on more than one drug during the time period

DISCLOSURES

The authors of this presentation have nothing to disclose concerning possible financial or personal relationships with commercial entities that may have a direct or indirect interest in the subject matter of this presentation

RESULTS

Patient characteristics are listed in **Table 1** with the associated PDC for each group. Analysis of PDC between drug groups showed non-significant differences when stratified by geographic region (**Figure 2**). A summary of average median household income by state associated with PDC categories (**Figure 3**) demonstrates income was lowest at \$61,254 in the lowest PDC tier (82.0-86.5%) and highest at \$70,639 in the highest PDC tier (≥90.0%). Individuals with higher PDC were associated with higher median household income.

Table 1: Patient Characteristics

CHARACTERISTIC (N=4245)	Palbociclib n=3406	Ribociclib n=267	Abemaciclib n=766
Age* (years)	69	60	68
≤50 years, n(%)	288 (8)	63 (24)	130 (17)
PDC*	87%	88%	85%
>50 years, n(%)	3118 (92)	204 (76)	636 (83)
PDC*	87%	87%	87%
Gender			
Female, n(%)	3340 (98)	261 (98)	755 (99)
PDC*	87%	87%	87%
Male, n(%)	63 (1.8)	6 (2)	11 (1)
PDC*	88%	93%	88%
Unknown, n(%)	3 (0.2)	-	-
PDC*	100%	-	-
Health System Geographic Region			
Midwest, n(%)	1410 (41)	139 (52)	323 (42)
PDC*	88%	89%	88%
Northeast, n(%)	716 (21)	33 (12)	157 (20)
PDC*	87%	86%	87%
South, n(%)	687 (20)	40 (15)	158 (21)
PDC*	86%	82%	85%
West, n(%)	593 (18)	55 (21)	128 (17)
PDC*	88%	88%	86%
Insurance Type**			
Commercial, n(%)	2284 (67)	197 (74)	504 (66)
PDC*	87%	88%	87%
Medicaid, n(%)	406 (12)	42 (16)	92 (12)
PDC*	87%	86%	85%
Medicare, n(%)	1369 (40)	68 (25)	244 (32)
PDC*	87%	87%	88%
Unknown, n(%)	180 (5)	16 (6)	20 (3)
PDC*	90%	91%	89%
Number of prescription fills*	16	12	10

*Average

**Will not add to n, as some patients had more than one insurance type

CONCLUSIONS

- Analysis of a large cohort of CDK4/6 inhibitor patients at HSSPs demonstrated high and consistent adherence across drug, age group, insurance type, and geographic location, highlighting the impact of the HSSP care model.
- Observations between U.S. state income level and adherence underscore the need to direct additional support to vulnerable populations.
- Further analysis mapping income at zip code level is recommended to separate various income groups.

REFERENCES

- NCCN Clinical Practice Guidelines in Oncology: Breast cancer. Version 4.2022. Available at: https://www.nccn.org/professionals/physician_gls/pdf/breast.pdf
- Stephenson JJ, Gable JC, Zincavage R, et al. Treatment Experiences with CDK4/6 Inhibitors Among Women with Metastatic Breast Cancer: A Qualitative Study. *Patient Prefer Adherence*. 2021;15:2417-2429. Published 2021 Nov 3. doi:10.2147/PPA.S319239
- Conley CC, McIntyre M, Pensak NA, et al. Barriers and facilitators to taking CDK4/6 inhibitors among patients with metastatic breast cancer: a qualitative study. *Breast Cancer Res Treat*. 2022;192(2):385-399. doi:10.1007/s10549-022-06518-2
- Gil-Gil M, Alba E, Gavilá J, et al. The role of CDK4/6 inhibitors in early breast cancer. *Breast*. 2021;58:160-169. doi:10.1016/j.breast.2021.05.008
- Quick Facts: United States. United States Census Bureau. <https://www.census.gov/quickfacts/fact/map/US/INC110220> (Accessed September 2, 2022).

Figure 2: Distribution of PDC by CDK4/6 Inhibitor and Geographic Region

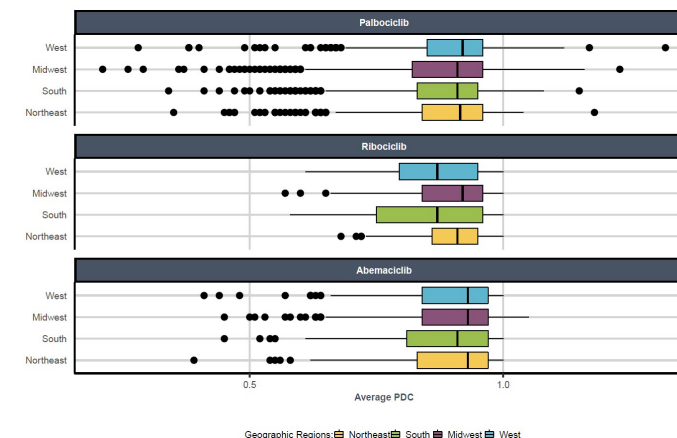


Figure 3: PDC and Average Median Household Income Distribution by State⁵

