PCN247

Characteristics of Users and Prescribers of Cyclin-dependent Kinase 4/6 Inhibitors (CDK4/6i) Among Medicare and Non-Medicare Patients with Human Receptor Positive / Human Epidermal Growth Factor 2 Negative (HR+/HER2-) Advanced/ Metastatic Breast Cancer (a/mBC) in the United States (US), 2015-2018

Allison Petrilla[1], Iman Mohammadi[1], Xian Shen[2], Dean Spurden[3], Debanjali Mitra[4]

[1]Avalere Health, Washington, DC, USA, [2]Avalere Health, Washington, DC, USA (at the time the study was conducted), [3]Pfizer Limited, Tadworth, SRY, UK, [4]Pfizer, Inc., New York, NY, USA

Objective

To describe characteristics of female patients with HR+/HER2- Advanced/ Metastatic Breast Cancer (a/mBC) who received CDK4/6i + endocrine therapy (ET) between 2015-2018, across US Medicare and managed care populations, along with characteristics of prescribing oncologists.

Conclusion

Majority of patients receiving CDK4/6i+ET were managed by providers in high volume practices located in urban/suburban areas. Medicare FFS members receiving CDK4/6i+ET were more commonly treated in hospital clinic setting vs. community setting for managed care members. Additional research is needed to measure the association between insurance coverage, CDK4/6i selection, and patient outcomes.

Background

- CDK4/6i in combination with hormonal therapies are recommended in the US as 1st line treatment for patients with HR+/HER2- aBC/mBC[1], but little is known about the characteristics of patients receiving CDK therapies and their prescribing physicians.
- A retrospective cohort analysis was conducted to provide a comprehensive real world picture of patient and provider characteristics across multiple payer types in the US.

Materials and Methods

STUDY DESIGN

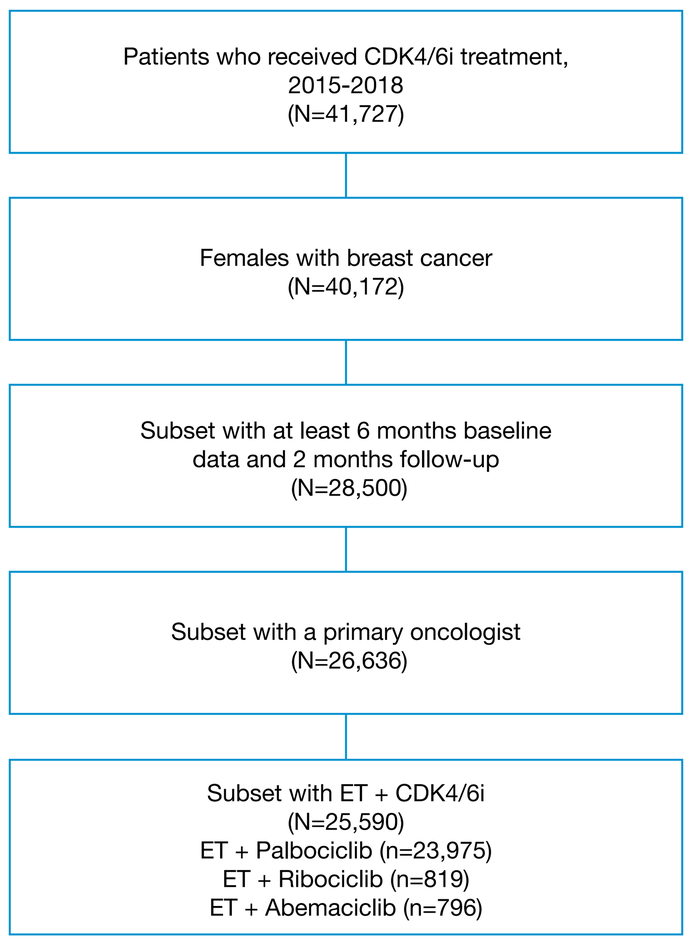
- The analysis was conducted using the 100% sample of CMS-sourced Medicare Fee-for-Service (FFS) beneficiaries and a convenience sample of commercially-insured, Medicare Advantage (MA), and Managed Medicaid (MM) plan members from the Inovalon MORE2 Registry®.
- Patient inclusion criteria: diagnosed with a/mBC and treated with a CDK4/6i plus ET anytime between 2015-2018, and ≥6 months of pre/ ≥2 post index health plan enrollment with medical/pharmacy coverage, and mapped to the treating oncologist based on national provider identifiers. Treatment with CDK4/6i plus ET identified using medical and pharmacy claims.
- Baseline characteristics included age, geographic region, and payer type.
- Characteristics of prescribing oncologists included: (1) hospital-based vs. community-based; (2) patient volume during study period (low = < 33rd percentile, medium = 33rd-66th percentile, high > 66th percentile); (3) provider located in metropolitan statistical area (MSA) urban/suburban area vs. non-MSA (rural); (4) socioeconomic status of provider location based on federal poverty limit (FPL) (< 100% FPL, 100-199%, 200-299%, >=300% above FPL); (5) provider years of medical practice (<10, 11- 20, >20 years).
- Descriptive statistics are reported.

Results

COHORT SELECTION

- A total of 25,590 CDK4/6i users between 2015 - 2018 qualified for analysis (see Figure 1); 23,975 (93.7%) received palbociclib plus ET; remainder received abemaciclib plus ET or ribociclib plus ET

Figure 1. Cohort Selection



PATIENT CHARACTERISTICS

- The majority of patients were identified with Medicare FFS coverage (78.2%), the remainder were commercially insured (9.9%), MM (6.4%), and MA (5.5%). CDK4/6i users with Medicare FFS/MA coverage were 14-18 years older than users with commercial or MM coverage (Table 1)

Table 1. Patient Characteristics, by Payer

Patient Characteristics	All payers (N=25,590)	Medicare FFS (N=20,001)	MA (N=1,410)	Commercial (N=2,544)	MM (N=1,626)
Patient Age					
Mean	69.2	72.1	70.8	55.8	53.8
SD	11.3	9.4	9.2	8.8	9.8
U.S. Census Region					
Northeast	21.3%	21.2%	34.7%	15.4%	19.6%
Midwest	24.2%	23.2%	25.5%	38.9%	11.7%
West	19.2%	18.6%	15.7%	21.0%	27.3%
South	35.0%	36.9%	20.7%	24.8%	40.1%

FFS: Fee-for-Service; MA = Medicare Advantage; MM = Managed Medicaid; SD = standard deviation

PROVIDER CHARACTERISTICS

- CDK4/6i users w/ Medicare FFS more commonly treated by hospital-based oncologist whereas non-Medicare population more commonly treated in community setting (Figure 2)
- CDK4/6i most commonly prescribed by high-volume oncologists (Figure 3) with at least 20 years of clinical practice (figure not shown) and located in urban markets above the FPL (Figures 4-5)
- Results were consistent across payer channels

Figure 2. Distribution of CDK4/6i Users by Community vs Hospital-based Oncologists and Payer

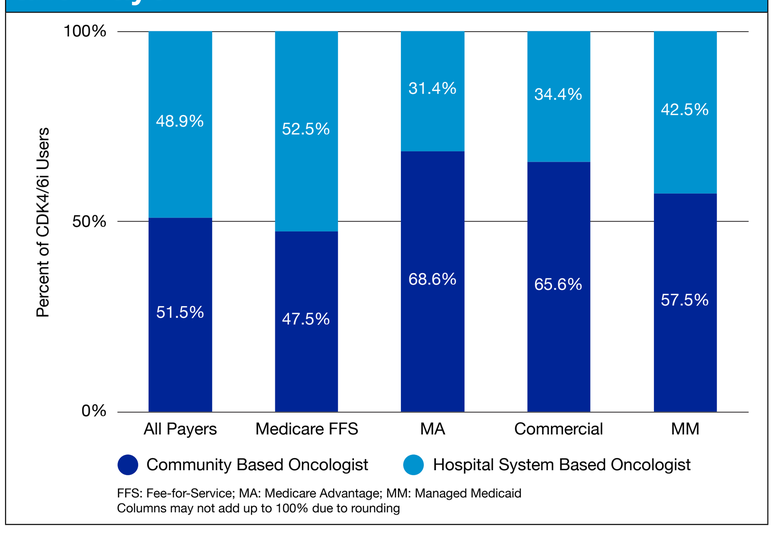


Figure 3. Distribution of CDK4/6i Users by Oncologist Patient Volume during Study Period and Payer

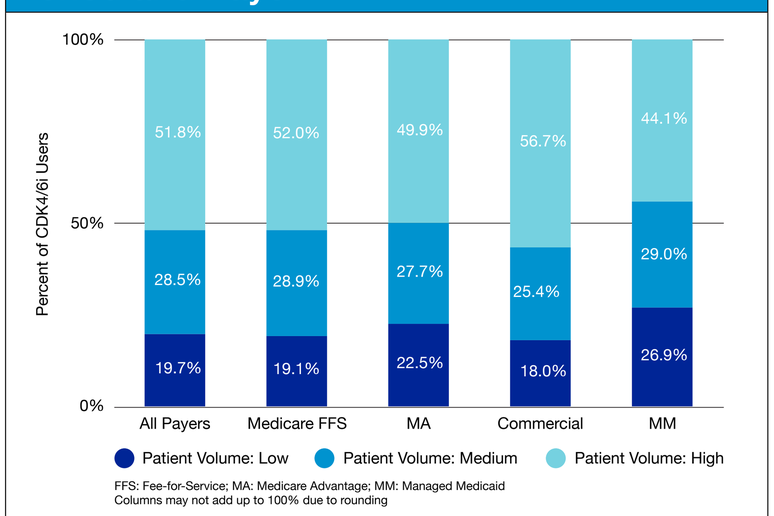


Figure 4. Distribution of CDK4/6i Users by Oncologist Geographic Location during Study Period and Payer

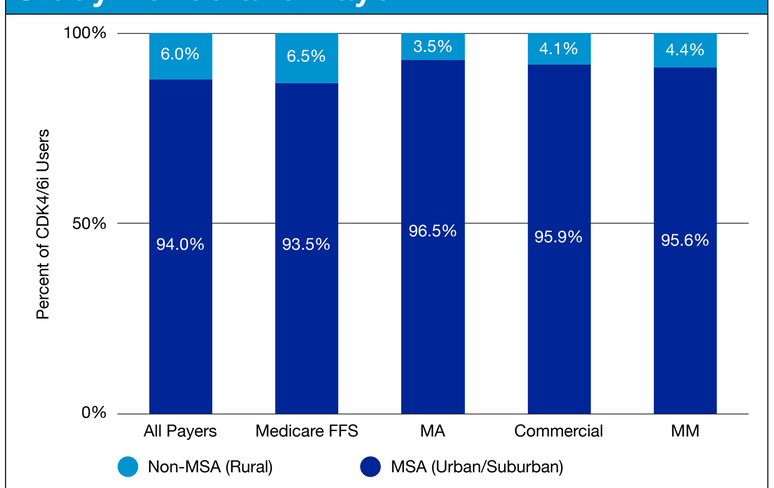
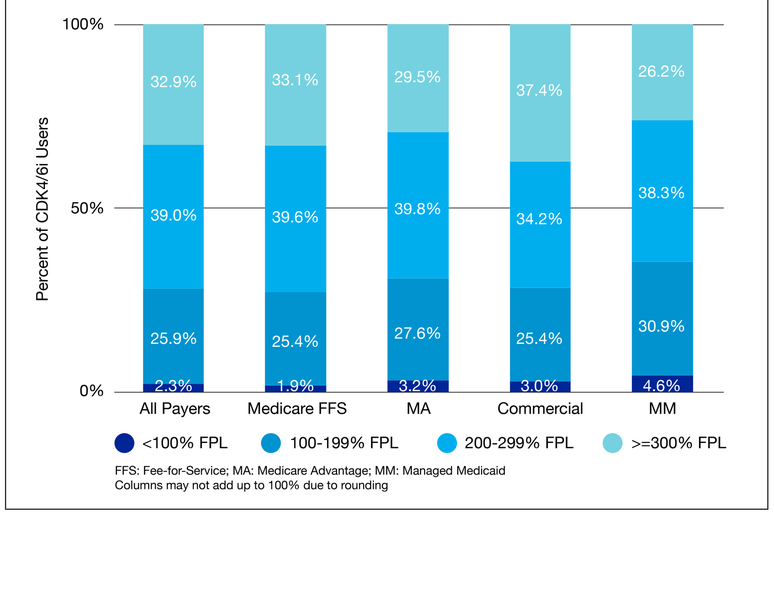


Figure 5. Distribution of CDK4/6i Users by Mean Federal Poverty Level in Oncologist Practice Location and Payer



Electronic Poster

An electronic version of this poster may be obtained by scanning this QR code with your smartphone app. Copies of this poster obtained through the QR Code are for personal use only and may not be reproduced without permission from ASCO® and the author of this poster. To request permission or to ask questions about the poster please contact dadkins@wustl.edu.

References: 1. NCCN Guidelines® for Breast Cancer. Version 3.2019 – September 6, 2019.5.

This study was sponsored by Pfizer. DM and DS are employees of Pfizer. AP and IM are employees of Avalere Health (XS was an employee of Avalere Health at the time the study was performed), which received financial support from Pfizer in connection with the development of this poster.

Presented at the Annual Meeting for the International Society for Pharmacoeconomics and Outcomes Research; May 2020; • Orlando, FL, USA