

# Evaluating Disparities in Clinical Outcomes Among Medicare Beneficiaries with Peripheral Artery Disease (PAD): A Call to Action for Health Equity Peter Monteleone<sup>1</sup>, <u>Ryoko Sato<sup>2</sup></u>, Abimbola O. Williams<sup>2</sup>, Sue Duval<sup>3</sup>, Alexandra Greenberg-Worisek<sup>2</sup>, Wendy Wifler<sup>2</sup>, Michael R. Jaff<sup>2</sup>, Jay Giri<sup>4</sup>

University of Texas, Austin Dell School of Medicine, Austin, TX; <sup>2</sup>Boston Scientific, Marlborough, MA; <sup>3</sup>University of Minnesota, MN; <sup>4</sup>University of Pennsylvania, Penn Medicine, Philadelphia, PA

### **OBJECTIVES**

- Existing research has demonstrated significant disparities in the diagnosis and treatment of peripheral artery disease (PAD), including disparities related to race/ethnicity, sex, and geographical location. However, these studies have primarily examined each factor in isolation.
- This study investigated the outcomes and treatment patterns of US Medicare beneficiaries diagnosed with PAD by focusing on the combined effects of race and location characteristics.

#### METHODS

- The 100% Medicare Standard Analytical Files were used to identify patients diagnosed with PAD between 1/1/2016 and 12/31/2022.
- The primary outcomes evaluated were death, amputation, and endovascular revascularization (ER) treatment post-PAD diagnosis.
- All US counties were categorized based on the percentage of the non-White population, and outcomes were compared between the lowest and highest quartiles for each race/ethnicity (Black vs. White, Hispanic, and other race).
- Multivariable logistic regression was used to assess the differences in these outcomes while controlling for age, sex, and comorbidities.

#### RESULTS

- Black patients had the highest mortality (27.9% vs. 25.0% [all other race] at 2 years, p<0.001) and amputation rate (4.1% vs. 1.5%, p<0.001) compared to all other races. (Fig 2 & 3)
- Regardless of race, patients in high non-White counties had an increased risk of death (27.7% vs. 24.6% [low non-White counties], p<0.001) and amputation (2.3% vs. 1.5%, p<0.001) compared to patients in low non-White counties. (Fig 2 & 3)
- Black patients had the highest probability of ER compared to all other race (4.8% vs. 4.2%, p < 0.001). (Fig 4)
- Patients in high non-White counties had a lower probability of ER (3.9% vs. 4.4%, p<0.001) than patients in low non-White counties. This pattern was consistent for each race/ethnic group. (Fig 4)
- Black patients have the highest risk of mortality and amputation. Furthermore, if they live in high non-White counties, they have even higher risk of death, but a lower chance of treatment.

## Black patients with PAD have the highest risk of death and amputation.

Furthermore, Black patients that live in counties with a high percentage of non-White population face a higher risk of death but a lower chance of treatment.



#### CONCLUSIONS

- This study highlights the combined impact of race and location characteristics in understanding health disparities in PAD populations.
- Geographically targeted interventions in high non-White areas could improve treatment access and may contribute to the advancement of sustainable health equity. (Fig1)



Sato R, Williams AO, Greenberg-Worisek A, Wifler W, and Jaff M are employees with Boston Scientific. Duval S. is a consultant with Boston Scientific. Dr. Monteleone and Dr. Giri were not compensated for their participation in this

