Background: Apparent treatment resistant hypertension (aTRH) is increasing in prevalence and is associated with an increased risk of adverse cardiovascular and renal outcomes. However, little is known about the intensity and patterns of care in aTRH.

Methods: The study population included hypertensive patients 65 years and older in the nationwide Reasons for Geographic and Racial Differences in Stroke (REGARDS) study with linkage to Medicare claims data. Blood pressure was measured during a baseline study visit and medications were identified by pill bottle review. ATRH was defined as treatment with three or more antihypertensives of different classes. Participants were categorized as non-aTRH, controlled aTRH (BP < 140/90), and uncontrolled aTRH (BP ≥ 140/90).

Results: Among 4894 participants with hypertension at baseline, 4124 (84.3%) had non-aTRH, 265 (5.4%) had controlled aTRH, and 505 (10.3%) had uncontrolled aTRH. Participants with any type of aTRH were more likely to be male (51.2% vs 45.8%) and black (49.4% vs. 36.7%), and had a higher prevalence of atrial fibrillation (15.2% vs. 11.6%), stroke (14.7% vs. 10.4%), and coronary artery disease (40.6% vs. 27.7%) compared to those with non-aTRH (all p <0.01). Participants with uncontrolled aTRH had a higher mean number of hypertension related clinic visits (3.78 vs. 3.57 vs. 2.97, p < 0.001) per year compared to those with controlled aTRH and non-aTRH. Participants with uncontrolled aTRH also had a higher mean number of cardiology (0.48 vs. 0.39 vs. 0.34, p=0.006) and nephrology (0.21 vs. 0.17 vs. 0.07, p<0.001), but not primary care (1.02 vs. 0.87 vs. 0.85, p=0.25) visits per year compared to those with controlled aTRH and non-aTRH. After multivariable adjustment, correlates of not receiving care for hypertension among patients with uncontrolled aTRH included male gender and white race (prevalence ratio=1.49, 95% CI 1.18 - 1.89 and 1.36, 95% CI 1.12-1.79, respectively).

Conclusion: Controlled and uncontrolled aTRH are associated with a high prevalence of cardiovascular comorbidities and increased number of cardiology clinic visits. These data suggest efforts to improve aTRH care may need to focus in part on cardiologists and nephrologists.