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Demographic and Social Determinants of Methadone Dose and Treatment Outcomes Among Patients Receiving Medication Assisted Treatment in New Jersey Based Programs

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To improve understanding of the predictors of methadone dose and treatment retention, we assessed how dose, toxicology and years in treatment related to demographics, social determinants of health (SDoH), and clinic. We recruited patients from four New Jersey clinics (N=325) and collected patient and treatment data using clinical interviews, electronic medical records, and registry data. We analyzed data from patients prescribed only methadone, receiving maintenance treatment, on a stable dose, and with ≥3 months of data (N=297). Patients were mostly >=45 years old (70%), female (53%), racially and ethnically diverse (Black, 37%; Hispanic, 25%; White, 38%) and 39% lived in census tracts with socioeconomic vulnerability ranked in the top 10% nationally. Median (IQR) stable dose was 85.0 (60.0-110.0) mg. White patients received greater doses than Black patients (93.8 (60.0-125.1) versus 80.3 (59.8-100.0) mg), and those with low and medium socioeconomic vulnerability received greater doses (99.0 (70.0-124.0) and 85.0 (60.0-119.2) versus 78.2 (59.3-100.0) mg)(p-values<.05). At end of follow-up, 38% of patients remained in treatment, with higher doses and lower toxicology than patients who dropped out or died, and years of treatment were higher in those with lower socioeconomic vulnerability (p-values<.05). Clinic was related to dose, toxicology, and years of treatment (p-values<.05). In multivariate survival analysis, dose (HR<60=4.08 CI=2.13-7.81, p<.0001; HR≥60-<90=2.61, CI=1.36-5.01, p=.0039; and, HR≥90-<120=1.97, CI=1.01-3.86, p=.0484), age (HR=0.98, CI=0.97-0.99, p=.0167), ethnicity (HR=0.57, CI=0.35-0.92, p=.0226), and clinic (HR=2.50, CI=1.37-4.53, p=.0027) contributed to treatment retention. SDoH and clinic influence dose and treatment retention, while dose is the major influence on treatment retention.