

PREVALENCE AND CLINICAL CHARACTERISTICS OF PATIENTS WITH TREATMENT RESISTANT HYPERTENSION BY REGION: THE SPIRIT STUDY

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ABSTRACT

Objectives: We quantified the characteristics of patients with treatment resistant hypertension (TRH) in a large multi-country sample of specialist tertiary centres. We also estimated incidence and prevalence of TRH in participating regions.

Methods: The Survey of Patients with treatment Resistant hyperTension (SPIRIT) study was a retrospective review of medical records of patients seen at tertiary centres located in Western Europe, Eastern Europe, North America, South America, Australia and Asia. . Data on demographics, medical history and medication use were extracted from medical records. Prevalence and incidence of TRH were estimated from the estimated population size in each region.

Results: 1555 patients from 76 centres in 15 countries were included from May to August 2017. Mean age was 64 (SD, 12.7), 60% were males and 62% were Caucasian, 36% had CKD (eGFR < 60 ml/min), 41% had diabetes, 12% were smokers, 27% had a previous CV event. Daytime ambulatory BP was the most frequently used measurement (46%) with a mean systolic BP of 144 mmHg (SD, 19.2) and diastolic BP 81 mmHg (SD, 13.8). 95% patients were prescribed diuretics (thiazides 75%), 93% an inhibitor of the renin-angiotensin aldosterone system (angiotensin receptor blocker: 61%; angiotensin converting enzyme inhibitor: 33%), 86% a calcium antagonist, 75% a beta-blocker and 35% an aldosterone antagonist. There were moderate differences in participant characteristics and management patterns between regions. The overall estimated mean incidence of TRH was 5.8 per 100,000 per year (ranging between 2.3 and 14.0 across regions) and the corresponding estimated mean prevalence of TRH was 23.9 per 100,000, ranging between 7.6 and 90.5 across regions.

Conclusion: TRH remains a common health issue. Observed variation between regions likely reflects some real differences in patient characteristics and physician management practices, but may also be due to inconsistent patient recruitment methods across participating sites.

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