Epidemiology Of Hereditary Transthyretin (hATTR) Amyloidosis: A Real-World Analysis Of A US Commercially Insured Population

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INTRODUCTION

- hATTR amyloidosis is a rare genetic, progressive, and fatal disease caused by build-up of misfolded transthyretin protein (amyloid) in organs and tissues
- The recent incidence of hATTR amyloidosis in the US is not well documented²,³
  - A 1996 estimate reported the US incidence to be one in 100,000 individuals⁴
  - Rates are most likely underestimated due to a lack of awareness and diagnostic uncertainty²,³
- This study’s objective was to generate a recent US estimate of diagnosed incidence of hATTR amyloidosis, focusing on patients with hATTR-associated polyneuropathy and/or mixed phenotype

METHODS

Study Design
- Retrospective study using IBM® MarketScan® Commercial and Medicare Supplemental databases* from 01/01/2013 – 12/31/2017

Patient Identification
- Included adult patients, ≥18 years, who were newly diagnosed with hATTR amyloidosis (incident cases) in 2016
  - ≥1 medical claim with a relevant diagnosis code for amyloidosis (ICD-10-CM: E85.0-4, E85.89, E85.9; excludes light chain and wild type) in the calendar year (CY) of 2016 AND ≥1 occurrence of qualifying criteria for hATTR any time during study period:
    - ≥15 days diffusional use without >30-day gap OR
    - liver transplant OR
    - claim with code E85.1 or E85.2
- All disease-free enrollees (continuously enrolled and without a diagnosis code of amyloidosis in CY2015) were included

Study Measures
- Annual diagnosed incidence in 2016 calculated as follows:
  - Number of new patient cases of hATTR in CY 2016 divided by total at-risk (disease-free) patient years from January 1, 2016, until diagnosis (cases) or enrollment end (non-cases) in CY 2016
  - Incidence reported as cases per million person-years (PMPY)
  - Enrollment was continuous during at-risk period

Statistical Analysis
- Incidence rates stratified by age group and gender
- All data transformations and statistical analyses were performed using SAS© version 9.4

REFERENCES