

Real-World Evidence (RWE) on Migraine Treatment in Routine Clinical Practice: Insights from the Turkiye Migraine Registry Study (TMRS) Using AI Algorithms

RWD109

P.Y. Dikmen¹, E.I. Aydinlar¹, S.N. Dumlu², T. Onal³, S. Gumru³, A. Loley⁴
1. Neurology Department, Acibadem University School of Medicine, Istanbul, Turkey 2. Faculty Of Engineering and Natural Sciences, Computer Engineering, Acibadem Mehmet Ali Aydinlar University, Istanbul, Turkey 3. Pfizer Turkiye, Istanbul, Istanbul, Turkey 4. Traverse Health, Amsterdam, NH, Netherlands



INTRODUCTION

- Migraine is a complex and debilitating disorder that imposes a significant economic burden on individuals and society¹⁻³.
- Despite its prevalence and debilitating nature, migraine remains underrecognized and undertreated¹⁻³.
- Using artificial intelligence to analyze electronic health records (EHR) will provide valuable insights into how neurologists manage migraine treatment⁴.

OBJECTIVE

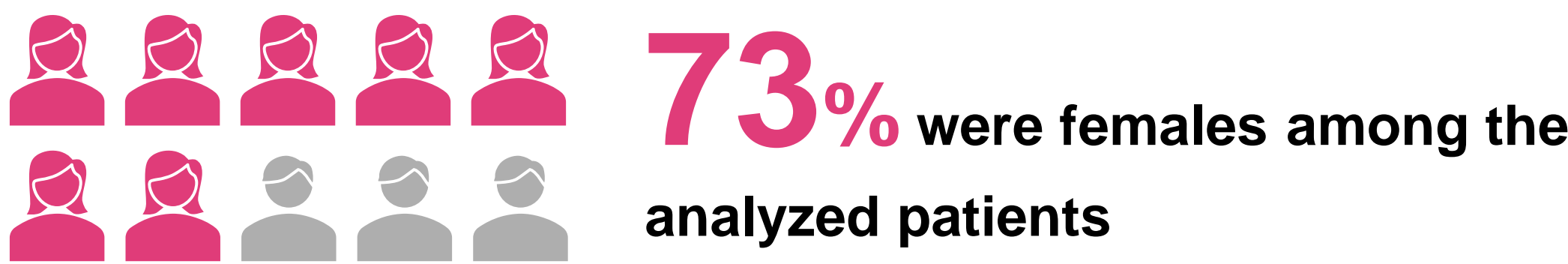
This study leverages artificial intelligence (AI) algorithms to extract and analyze unstructured data from EHRs and aims to analyze real-world treatment patterns and patient characteristics among migraine patients in Turkey.

METHOD

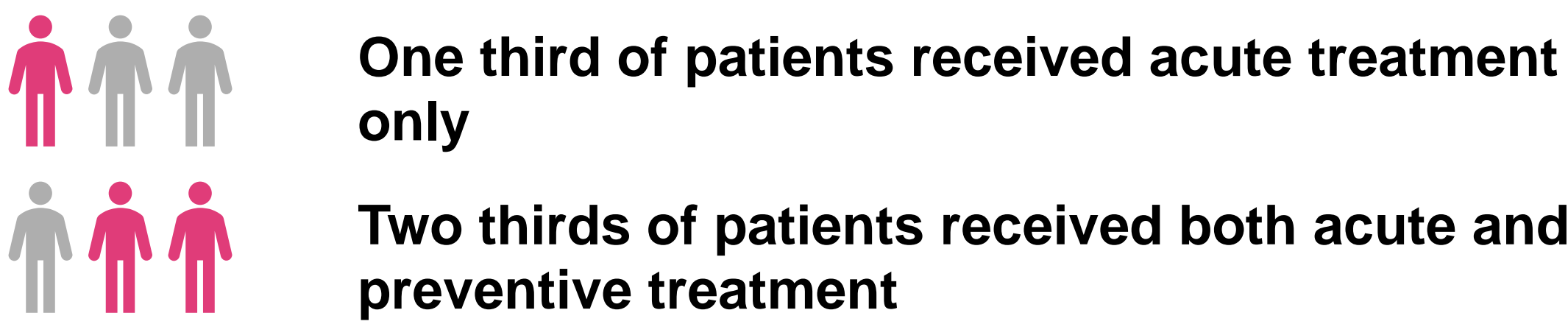
- Analyzed EHRs of **11,023** adult patients diagnosed with migraine or suspected migraine
- From **25 hospitals** and **18 outpatient clinics**
- Turkey**
- Between **January 1, 2021**, and **November 1, 2023**
- Data were cleaned and standardized using automatic and manual verification.
- Data were transformed to the Observational Medical Outcomes Partnership (OMOP) Common Data Model (CDM) to enable comprehensive analyses and identify outliers, supporting our study's non-interventional, AI-driven approach.

RESULTS

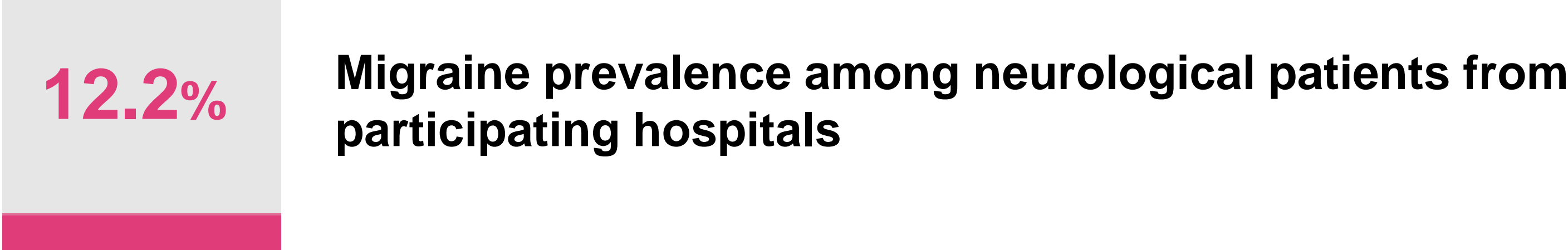
Demographic



Treatment regimen



Migraine prevalence



Patient routing



Patient preference



CONCLUSIONS

- The Turkiye Migraine Registry Study (TMRS) provides valuable Real-World Evidence (RWE) that can inform stakeholders about the real-world outcomes of migraine treatments.
- The study's innovative use of AI underscores the potential of technology in enhancing RWE research and improving patient care.

REFERENCES

- Ertas, M. (2012). One-year prevalence and the impact of migraine and tension-type headache in Turkey: a nationwide home-based study in adults. *J Headache Pain*, 2012 Mar;13(2):147-57.
- Pascual, J. (2023). Preventive treatment patterns and treatment satisfaction in migraine: results of the OVERCOME (EU) study. *J Headache Pain*, 2023 Jul 17;24(1):88.
- Lipton, RB. (2022). Diagnosis, consultation, treatment, and impact of migraine in the US: Results of the OVERCOME (US) study. *Headache*, 2022 Feb;62(2):122-140.
- Hindiyeh, NA. (2022). Development and validation of a novel model for characterizing migraine outcomes within real-world data. *J Headache Pain*, 2022 Sep 21;23(1):124.

CONTACT INFORMATION

pinar.yalinay@acibadem.com