DIRECT AND INDIRECT COSTS OF MIGRAINE IN HEADACHE SPECIALIST CENTERS IN PORTUGAL

Catarina Silva[1], Pedro A Laires[1], Shannon Ritter[2], Josefin Snellman[3]

[1]Novartis Farma, Porto Salvo, Portugal; [2]Novartis Pharma AG, Cranfors, NJ, USA; [3]Novartis Pharma AG, Basel, Switzerland

PND61

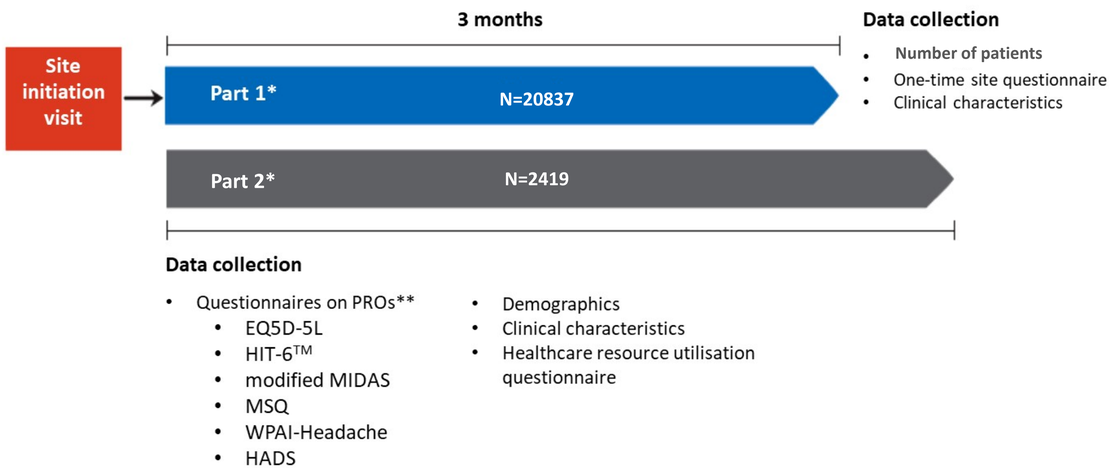
Introduction

- Migraine is a common neurological disorder with meaningful migraine-related healthcare resource use (HCRU) likely to increase in difficult-to-treat patients.
- There are limited data available from European countries on the disease burden regarding HCRU in migraine patients with prior treatment failure namely from Portugal.
- The BECOME study was designed to assess the **B**urden of migrain**E** in specialist headache **C**entres treating patients with pr**O**phylactic treat**M**ent failur**E**.
- We aimed to estimate the annualized cost per patient with migraine, for the overall migraine population and according with the number of previous prophylactic treatment failures (TF) in Portugal based on the BECOME study.

Methods

- The BECOME study was a multicentre, non-interventional study conducted simultaneously in two parts across headache clinics of 17 European countries and Israel (Figure 1) between Nov2017-Aug2018.
- Part 1 of the study entailed a 3-month prospective data collection period, screening all patients visiting the headache clinics for frequency of monthly migraine days (MMD) and treatment failure (TF).
- Part 2 collected data from a subset of patients with ≥1 TF within the past 5 years identified by the investigators in accordance with routine clinical practice as meeting the study inclusion criteria and who have consented to participate in the study (Figure 1).
- A Steering Committee provided recommendations for the protocol and operational questions of study conduct and reviewed final study data.

Figure 1. Study design



*Part 1 and Part 2 of the study can be completed on the same day; **intended for all patients and within 1 day;
EHF, European Headache Federation; EQ-5D-5L, EuroQol 5-Dimension 5-Level; HADS, Hospital Anxiety and Depression Scale; HIT-, 6TM, Headache Impact Test; MIDAS, Migraine Disability Assessment; MSQ, Migraine-Specific Quality-of-Life Questionnaire; PROs, patient-reported outcomes; WPAI, Work Productivity and Activity Index

- For Part 1, adult patients aged 18–65 years with prior diagnosis of migraine or diagnosis on the day of visit were cumulatively counted in each site overall and according with MMD and number of prior prophylactic TF.
- For Part 2, patients with ≥4 MMD, evidence of efficacy failure* in the past 5 years or tolerability failure† or not suitable‡ for ≥1 preventive treatment in a lifetime, who were newly seeking care or required treatment re-evaluation due to unsatisfactory treatment in the previous 3 months were included.

***Efficacy failure:** no meaningful reduction in headache frequency after administration of the respective medication for an adequate period of time (at least 2–3 months are recommended by the EHF treatment guidelines) at generally accepted therapeutic dose(s) based on the treating physician's assessment within the last 5 years prior to screening

†**Tolerability failure:** documented discontinuation due to adverse events of the respective medication at any previous time;

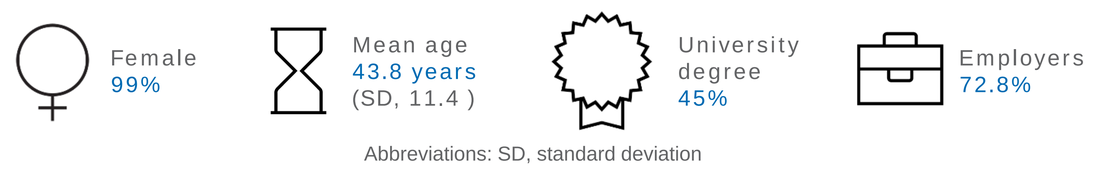
‡**Not suitable:** patient is not considered to be suitable for preventive migraine standard of care treatment for medical reasons such as contraindications or precautions included in local labels, national guidelines or other locally binding documents, or other medically relevant reasons, as confirmed by the treating physician

- Annualized self-reported HCRU (emergency visits, hospitalizations, healthcare professional consultations) and corresponding costs for the NHS were calculated based on the unitary costs from available public data.
- Indirect costs (absenteeism and presenteism related with migraine) were estimated based on the Work Productivity and Activity Impairment questionnaire (WPAI) headache specific version and considering the Human Capital Approach (national mean wage coming from public sources was used to estimate the cost per working hour lost).
- All costs are expressed in 2019 euros.

Results

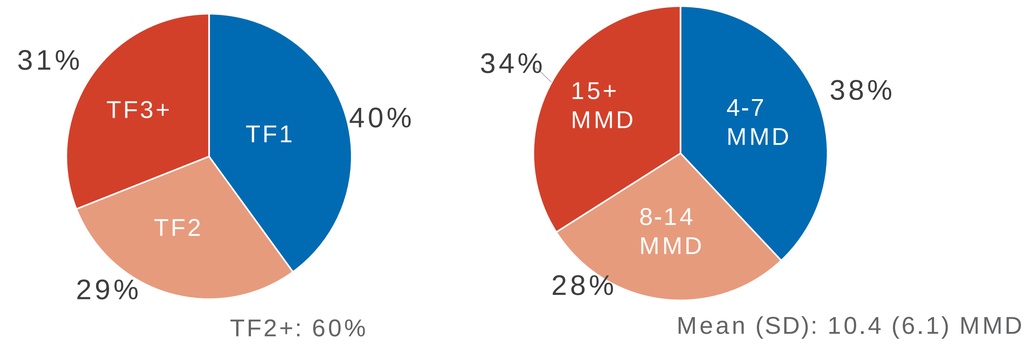
- Characteristics of the Portuguese sample of the BECOME study part 2 (n=103) are described in Figure 2 and Figure 3.

Figure 2. Characteristics of the Portuguese participants (n=103)



Abbreviations: SD, standard deviation

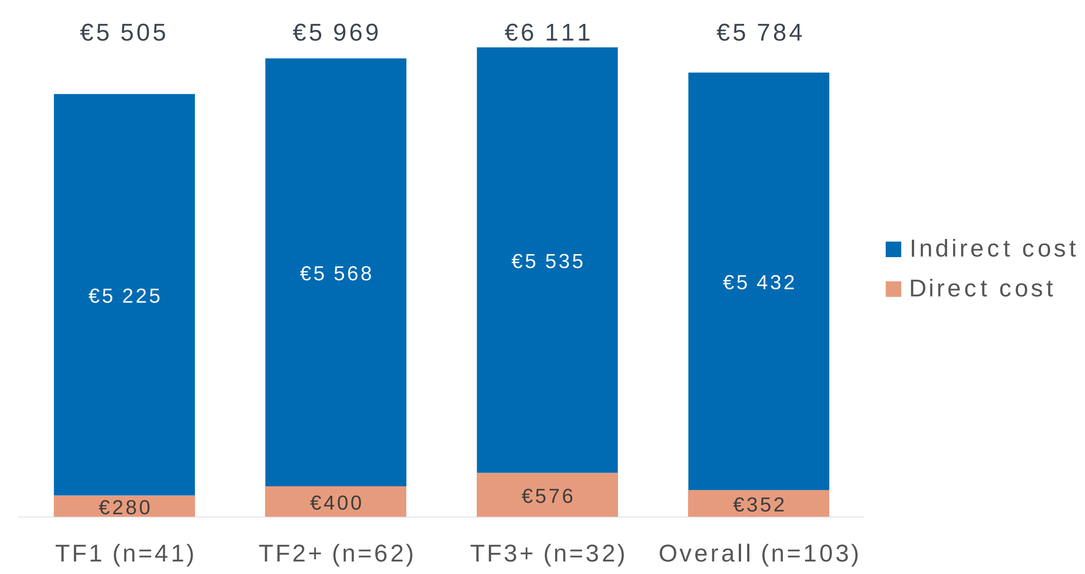
Figure 3. Number of prior prophylactic TF and MMD (n=103)



Abbreviations: TF, treatment failure; MMD, monthly migraine days; SD, standard deviation

- Direct and indirect costs related with migraine are described in Figure 4.
- The direct and indirect cost averaged €352/patient/year and €5,432/patient/year, respectively.
- Total cost averaged 5,784 €/patient/year (Table 1).

Figure 4. Yearly migraine cost per patient



Conclusions

- Direct and indirect costs related with migraine are substantial, particularly those related with productivity loss, which is the major cost driver contributing with 94% to the overall cost.
- This study highlights the need for more effective treatments and better management of migraine in order to reduce the economic burden of this disease namely its impact on work.

ACKNOWLEDGMENTS

The authors acknowledge the Steering Committee (Prof. Patricia Pozo-Rosich, Barcelona, Spain; Dr. Christian Lucas, Lille, France; Dr. David Watson, Aberdeen, Scotland; Dr. Charly Gaul, Königstein im Taunus, Germany; Prof. Paolo Martelletti, Rome, Italy) for recommendations and data review and the study coordinators, nurses and other hospital staff for their contribution to the BECOME study.

DISCLOSURES

Catarina Silva, Pedro Laires, Shannon Ritter, Josefin Snellman – Novartis employees.

DISCLAIMER

This study was funded by Novartis Pharma AG, Switzerland.

Poster presented at the ISPOR Europe 2019, Copenhagen, Denmark, 2-6 November 2019.