Complex, Difficult-to-Manage, and Treatment-Refractory Psoriatic Arthritis: Application of GRAPPA and EULAR Definitions in a Large Observational Cohort

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INTRODUCTION

Complex/Difficult-to-Manage (C2M/D2M) and **Treatment-Refractory (TR)** psoriatic arthritis (PsA) represent patient subgroups with substantial residual disease burden despite optimal use of current therapeutic strategies.

Group for Research and Assessment for Psoriasis and Psoriatic arthritis (GRAPPA) and **European Alliance of Associations for Rheumatology (EULAR)** recently proposed classification frameworks for these challenging phenotypes [1, 2].

METHODS

- Retrospective cross-sectional analysis
- Of 1788 patients screened, **630** with ≥1 clinic visit were included
- Patients were classified into **C2M/D2M and TR** categories according to GRAPPA and EULAR criteria
- Demographic, clinical, radiographic, treatment and comorbidity data, were analyzed and compared across the different groups - **GRAPPA C2M vs non-C2M**, **GRAPPA TR vs non-TR**, **EULAR D2M vs non-D2M** and **EULAR TR vs non-TR** groups

OBJECTIVE: Application of both GRAPPA and EULAR definitions

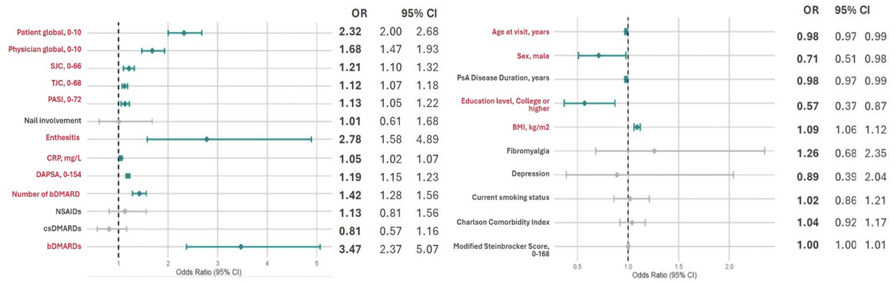
STUDY COHORT: 630 patients

SETTING: Gladman Krembril Psoriatic Arthritis Cohort at TWH

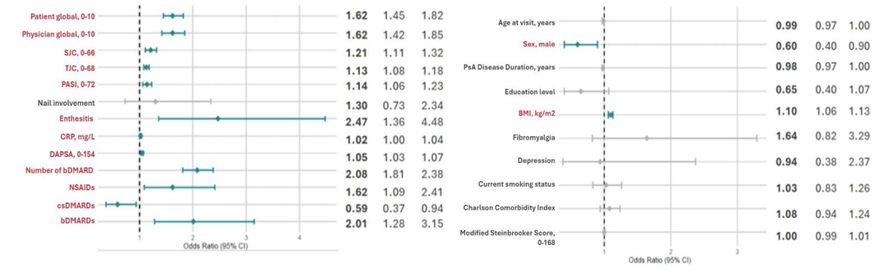
TIMELINE: July 1, 2024 to July 1, 2025

RESULTS

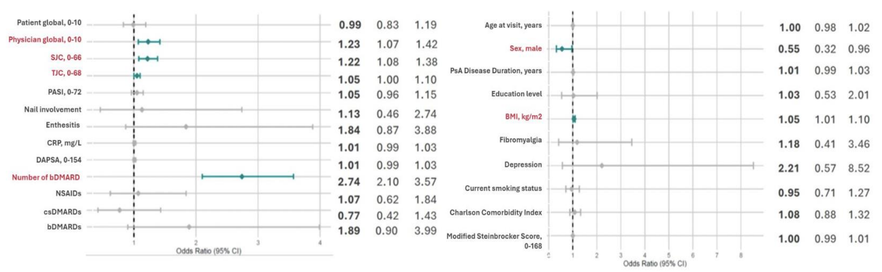
A. GRAPPA Complex-to-Manage PsA (n= 225)



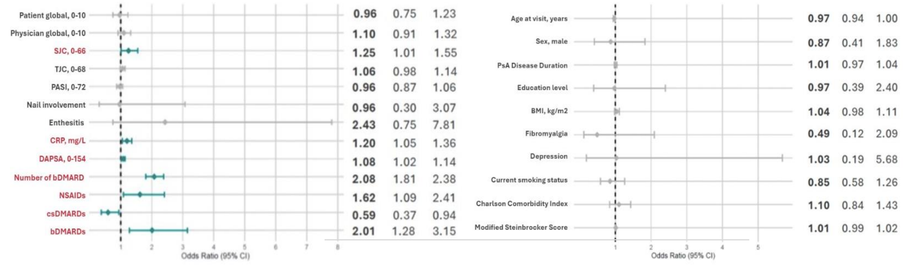
B. EULAR Difficult-to-Manage PsA (n= 122)

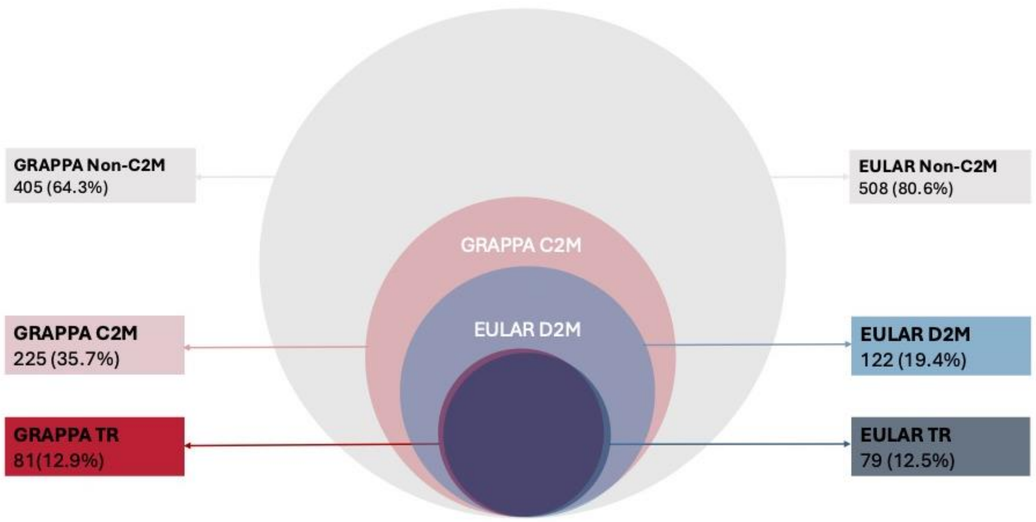


C. GRAPPA Treatment Refractory PsA (n= 81)



D. EULAR Treatment Refractory PsA (n= 79)





CONCLUSIONS

GRAPPA and EULAR both identify PsA patients with high disease burden but **differ in sensitivity and thresholds**

- **GRAPPA: C2M-35.7%, TR 12.9%**
- **EULAR: D2M- 19.4%, TR 12.5%**

GRAPPA captured a **broader subset**, whereas **EULAR** applied more **stringent** definitions

Factors associated with C2M/D2M group – **younger, female, higher BMI,** and **lower educational status**

Factors associated with TR group – **higher BMI** and **female**

C2M/D2M disease appears multifactorial, potentially driven by non-PsA and comorbidity-related factors, while TR disease primarily reflects persistent, inflammatory activity

ACKNOWLEDGEMENTS

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REFERENCES

1. Proft F, Ribeiro AL, Singla S, Chandran V, Liao W, Lindsay C, et al. Consensus definitions of complex-to-manage and treatment-refractory psoriatic arthritis: a GRAPPA initiative. Nat Rev Rheumatol. 2026;22(2):132–44.
2. Marzo-Ortega H, Harrison SR, Fragoulis GE, Michelena X, Macia-Villa C, Aydin SZ, et al. EULAR points to consider and consensus definitions for difficult-to-manage and treatment-refractory psoriatic arthritis. Ann Rheum Dis. 2026;85(1):61–74.