Reducing External Plasma Dependency:
Impact for the Portuguese National Health Service

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J. Alves [1], O. Boghenco [2], F. Ramos [2]

1. CHRC, LA-REAL, National School of Public Health, NOVA University Lisbon, Lisbon, Portugal
2. NOVA National School of Public Health, NOVA University Lisbon, Lisbon, Portugal

NOVA NATIONAL SCHOOL OF PUBLIC HEALTH

ISPOR Europe 2025 #ISPOREurope

Background

- Plasma-derived medicines (PDM), e.g. immunoglobulins, albumin, are essential for many chronic and acute patients [1]
- Production depends on human plasma, a limited resource vulnerable to global shocks (geopolitical tensions, pandemics, climate change) [2]
- Portugal relies heavily on PDM imports

Objective: this study assesses the implications for the Portuguese National Health Service (NHS) of transitioning to a more self-sufficient national plasma collection

Methods

- Grey literature review and data analysis to estimate plasma collection and demand
- Comparative assessment of plasma collection and determinants in selected European countries
- INFARMED (2022) data used to calculate required plasma volume for full coverage of PDM
- Cost savings estimated using official tariffs under a self-sufficiency scenario
- Stakeholder consultation (policy, clinical, supply chain experts) to validate assumptions and identify feasible interventions

Results

- Portugal collects ~ 3L of plasma per 1,000 inhabitants annually (vs. EU mean of 14L)
- Portuguese plasma collection covers only 11% of the country's requirements for PDM production (Fig. 1)
- Achieving self-sufficiency could have resulted in estimated savings of €39.5 million in 2022
- Stakeholder insights:
  - Boost collection for high-demand PDM
  - Enhance institutional coordination
  - Promote supply sustainability and resilience

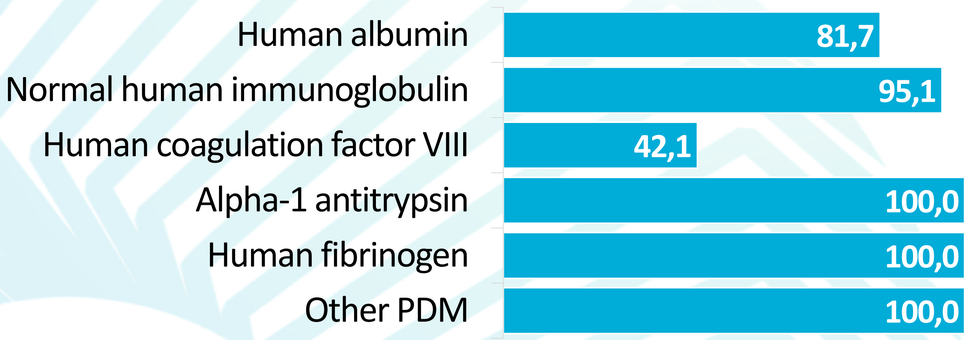

Fig. 1. National dependency – imports by PDM (%). (INFARMED, 2024) [3]

Expenditures with PDM	Total	National Plasma	Undetermined origin
Normal human immunoglobulin	65 734	2 227	63 507
Alpha-1 antitrypsin	8 842		8 842
Human fibrinogen	5 973		5 973
Human albumin	5 488	777	4 711
Human coagulation factor VIII	3 202	596	2 607
Other PDM	9 031		9 031
Total Expenditures	**98 270**	**3 600**	**94 670**

Table 1. Total expenditures with PDM for 2022 (thousands of euros)

Conclusions

- Increasing national plasma collection could:
  - Generate substantial cost savings
  - Reduce import dependence
  - Strengthen health system resilience
- Provides evidence-based support for policy decisions on plasma procurement.

References

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Contact Information

Joana.alves@ensp.unl.pt

TAKEDA supported this study with a research grant