

THE ECOSYSTEM OF EVIDENCE

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Prescriptive Appropriateness of Proton Pump Inhibitors: Digital Strategies and Clinical Decision Support Systems to Reduce Overuse and Misuse in the Azienda Toscana Sud-Est, Arezzo Operational Area, 2023-2025

Real-world analysis and digital strategies in Arezzo, 2023-2025

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30th GIMBE 1996-2026 EVIDENCE FOR HEALTH



Background and aims

BACKGROUND

- Proton pump inhibitors (PPIs; ATC A02) are among the most frequently prescribed drugs in primary care.
- Long-term use and treatment without a clear indication may contribute to inappropriate gastroprotection.
- Real-world data can identify prescribing patterns and support Evidence-Based Health Care (EBHC).

AIMS

Assess prescribing appropriateness in 2023–2025, focusing on:

- PPI + acetylsalicylic acid (ASA): A02+B01
- Isolated PPI use: A02 only
- Temporal trends and territorial variability
- Support continuous improvement ahead of AIFA Note N01

Methods

STUDY DESIGN

Retrospective observational study

Province of Arezzo • Regional Health Service • 2023–2025

POPULATION & ANALYSIS

- >40,000 unique beneficiaries/year
- ATC second-level classification
- A02+B01 (ASA) and A02 only
- Stratification by prescribing zone/district

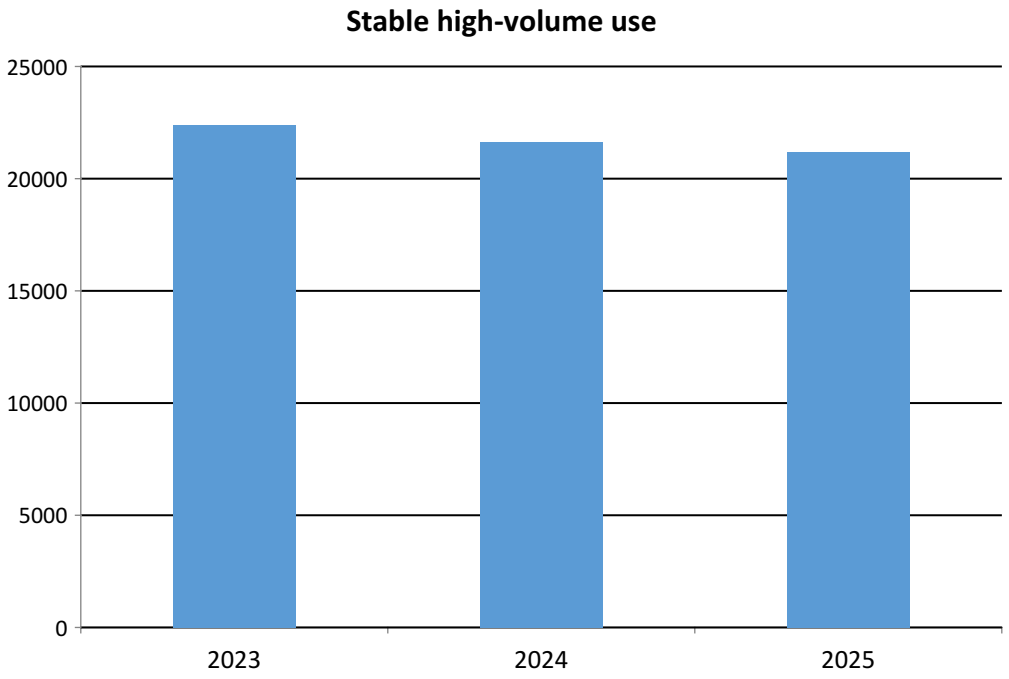
APPROPRIATENESS INTERVENTIONS

- Clinical audits and prescribing reports
- Computerized prescribing support / Medico Digitale
- Self-audit tools
- Educational meetings within Territorial Functional Aggregations (AFTs) and district areas

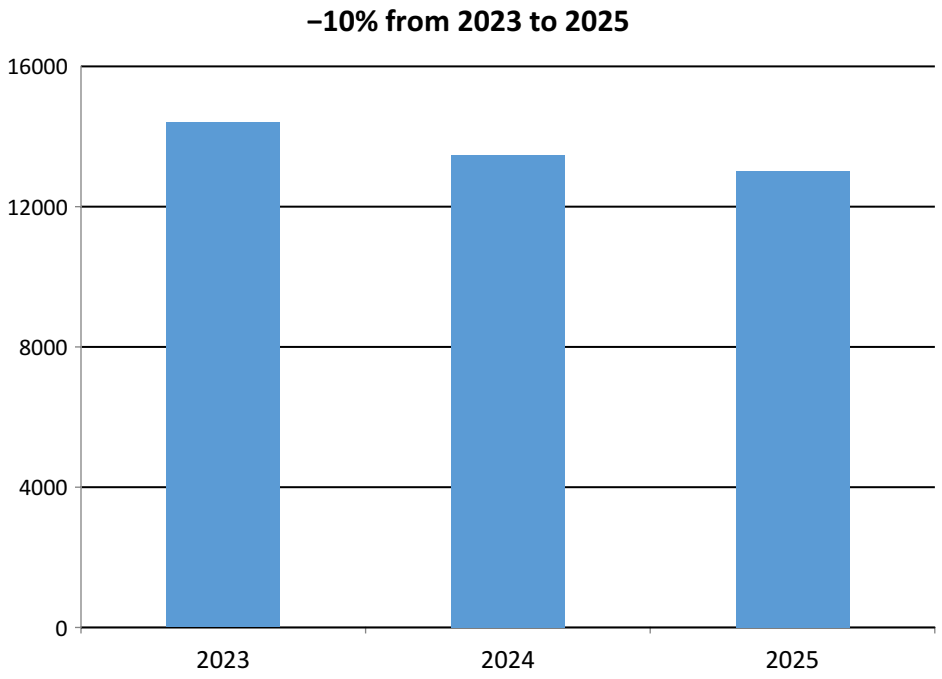
→ **A continuous, multiprofessional improvement framework**

Results

A02 + B01 (ASA)



A02 ONLY



2,274 beneficiaries received PPIs continuously in all three years → priority group for medication review and therapy optimization.

Limits and conclusions

LIMITS

- Administrative drug-utilization data do not directly capture clinical indications or disease severity.
- Treatment adherence and clinical appropriateness cannot be fully assessed from dispensing data alone.

CONCLUSIONS

- Real-world PPI use showed signs of improved prescribing appropriateness over 2023–2025.
- A02-only use decreased by 10%, while a substantial persistent cohort remained.
- 2.274 long-term users were identified for targeted medication review.
- Territorial variability supports tailored audit and feedback.

TAKE-HOME MESSAGE

Integrating real-world data, digital communication, audit and prescribing feedback can strengthen pharmaceutical governance and support more appropriate and sustainable PPI use, providing a baseline for the implementation of AIFA Note N01.

Thank you for your attention.