**Advancing Rational Drug Treatment: Integrating People, Computerized Decision Support and Artificial Intelligence**

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**Introduction.** Polypharmacy presents significant challenges in geriatric care, leading to adverse drug events and suboptimal outcomes. Artificial intelligence (AI) and Clinical Decision Support (CDS) offer promising solutions to enhance rational drug treatment by aiding diagnosis, treatment planning, and proactive interventions.

**Aims**. This workshop introduces Fast&Rational (fastrational.com), an AI-supported web application specifically designed to mitigate the side effects of polypharmacy and promote rational drug use in older adults.

**Methods**. This rule-based system identifies potentially inappropriate medications (PIMs), drug-drug, and drug-disease interactions, significantly reducing the time clinicians spend on manual analysis.

**Results.** We are actively developing Fast&Rational to incorporate recent advancements in large language models. Future enhancements will include user-friendly search capabilities, image upload functionality for medication identification, multi-language support, speech-to-text input, and continuous database updates. These features will further improve accessibility and provide comprehensive decision support for healthcare professionals.

**Discussion.** In this workshop, we will delve into AI-supported CDS systems, discussing their advantages and disadvantages in the context of polypharmacy.

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