

Unlocking the potential: Can clinical case reports enhance pharmacotherapeutic reasoning?

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Introduction

- Case reports have an educational value, especially to support diagnostic reasoning
- Value for therapeutic reasoning is unknown
- Important because prescribing errors can cause patient harm
- The aim is to analyze the extensiveness and motivation for therapeutic choices in case reports

Methods

Review of all case reports in 2023 in 17 high-impact journals:



4 General medicine journals



13 Clinical pharmacological journals







Each prescription scored based on WHO 6-step

Results

323 case reports screened → 143 case reports included → 516 drugs prescribed
353 in general journals and 163 in clinical pharmacological journals

Table 1: Proportion of prescriptions reporting each item (%)

	Age&gender (100%), comorbidity (84.1%), co-medication (72.3%), intoxications (54.7%) allergies (34.3%)
	Name of drug (90.9%), administration route (41.5%), duration (40.3%), dose (39.7%), frequency (29.3%)
	Evidence (48.1%), therapeutic goal (20.5%), specific (2.3-8.1%) or general (0.3-9.1%) considerations
	Treatment result (87.8%), side effects (15.3%), interactions (2.7%), contra-indications (1.2%)



More focus on co-medication, allergies and intoxications, evidence from scientific papers or guidelines



More focus on drug dosage and frequency, evidence as textual explanation, side effects (before and as a result)

Conclusion and implications

- Therapeutic reasoning is often underreported in case reports
- Almost no significant differences between specific journals
- Structured reporting may improve educational value → e.g. via four-step model
- Clinical pharmacology journals can lead in showcasing complex cases focusing on therapeutic reasoning

Four-step model to improve therapeutic reasoning in case reports

Describe for each prescription:

1. Indication for drug therapy
2. Standard treatment for indication
3. Argumentation for drug choice
4. Specific information about the therapeutic decision