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## **The Quality of Prescribing for Psychiatric Patients**

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# The Quality of Prescribing for Psychiatric Patients

## - types of potentially inappropriate prescriptions and predictive factors

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**DEFINITION:** Potentially inappropriate prescribing is a practice that introduce a significant risk of an adverse drug-related event where there is evidence for an equally or more effective but lower-risk alternative therapy available for the same condition.

Additionally, PIP includes the use of drug combinations with known drug-drug interactions, drug-disease interactions, over-dosing, use of drugs for longer time than clinically indicated, as well as lack of prescribing drugs that are clinically indicated (1,2)

**OBJECTIVES:** Prescribing for adult psychiatric patients is often highly complex due to the nature of psychiatric conditions, but also due to somatic comorbidity. Therefore, the aim of this study was to identify prevalence and types of potential inappropriate prescribing (PIP), asses the severity of potential clinical consequences and identify possible predictive factors of PIP.

**METHODS:** The study was designed as a prospective study of PIP using medication reviews. Patients who were admitted during a 4 month period (August 2013 - November 2013) to a psychiatric university hospital were included. There were 219 eligible patients of which 12 were excluded (n=207)(Figure 1). The medication reviews, including an assessment of potential severity, were carried out by clinical pharmacologists after admission and after the attending physician had seen the patient. Frequencies and categories of PIP were analyzed in absolute numbers and as percentages (Figure 2). Severity of PIP was assessed using four categories. Logistic regression analysis was used to identify possible predictive factors of PIP.

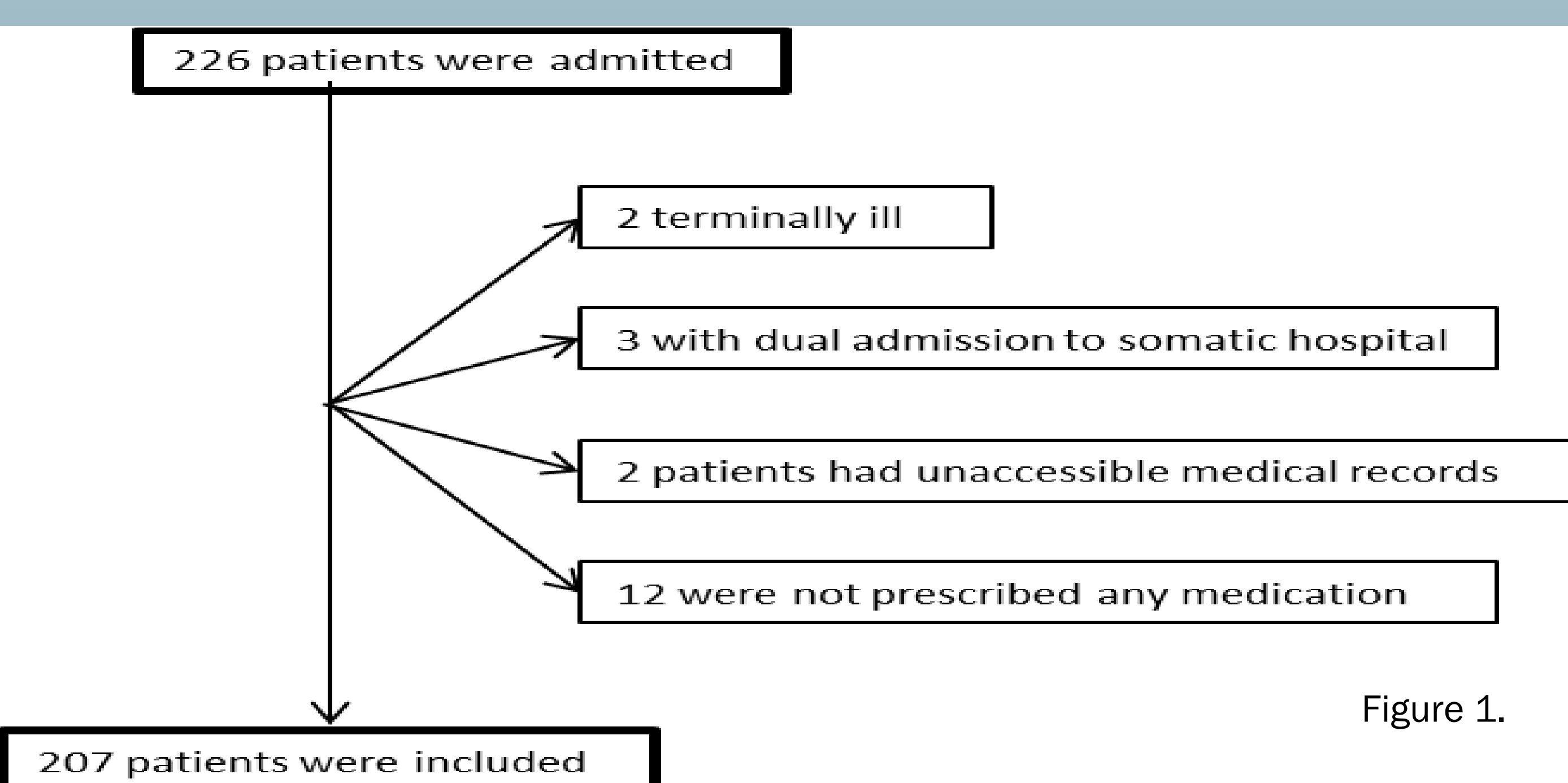


Figure 1.

**RESULTS:** The proportion of patients with one or more PIPs was 123/207 (59%). "Interaction between drugs" was the most common category for potentially serious and potentially fatal PIPs with 49/123(40%) and 32/45(71%), respectively. Of 32 identified potentially fatal drug-drug interactions, 15/32(47%) involved two or more antipsychotic drugs and 12/32(37%) involved antipsychotic drugs in combination with antidepressants. The remaining 5/32 (16%) potentially fatal drug-drug interactions involved somatic drugs. After adjusting for age, gender, alcohol/substance abuse, number of prescriptions, number of somatic diagnoses and level of kidney function, only polypharmacy (>5 prescriptions) and somatic illness increased the odds for a PIP significantly; OR=4,25(95% CI:2.13-8.51), OR=2.13(95%CI: 1.07-5.19), respectively.

Category of PIP	Total number of PIPs n(%)
Interaction between drugs	125 (36%)
Drug dosage too high	56 (16%)
Omission of indication for treatment	46 (13%)
Other	38 (11%)
Interaction between drug and disease	32 (9%)
Omission of a potentially useful medication	16 (5%)
Inappropriate dosing interval	11 (3%)
Drug dosage too small	8 (2%)
Allergy	6 (2%)
Duplicate drug	4 (1%)
Inappropriate dosage time	3 (<1%)
Inappropriate dosage form	3 (<1%)
Inappropriate duration of treatment	1 (<1%)
Inappropriate route of administration	0
<b>TOTAL</b>	<b>349</b>

Figure 2

**CONCLUSIONS:** PIP is frequent and might have serious or fatal consequences. Special attention should be given to drug-drug interactions involving antipsychotics and antidepressants. Somatic illness and polypharmacy appear to be predictive factors of PIP. There is a pressing need to improve the quality in prescribing for psychiatric patients.

References:

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- 2) O'Conner M, Gallagher P, O'Mahony D. Inappropriate prescribing: criteria, detection and prevention. Drugs Aging. 2012;29:437-52.

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