



A nationwide cohort study of oral and depot
antipsychotics after first hospitalization for
schizophrenia

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Background

Rationale

- Schizophrenia (SZ) is a chronic, severe and disabling mental disorder. The disorder is characterized by a variety of clinical manifestations, including symptoms that are both positive and negative, reduced social function and community participation, and cognitive impairment.
- Medication nonadherence rates are high in schizophrenia, as they are in many chronic medical conditions.
- Currently there is a dearth of long-term data comparing the use and effectiveness of depot and oral antipsychotics after first-episode psychosis.

Aim of the study

- To evaluate the risk of rehospitalization and drug discontinuation in a nationwide cohort of 2,588 patients hospitalised for the first time with schizophrenia during 2000-2007 in Finland.

Study design and outcome measures

- The study was conducted as a register-based case linkage study utilizing data on hospitalization, mortality and antipsychotic prescriptions. The primary outcome measures were
 - 1) all-cause discontinuation of the initial antipsychotic medication,
 - 2) reshospitalization due to schizophrenia, and
 - 3) death from any cause.

Statistical evaluation of the results

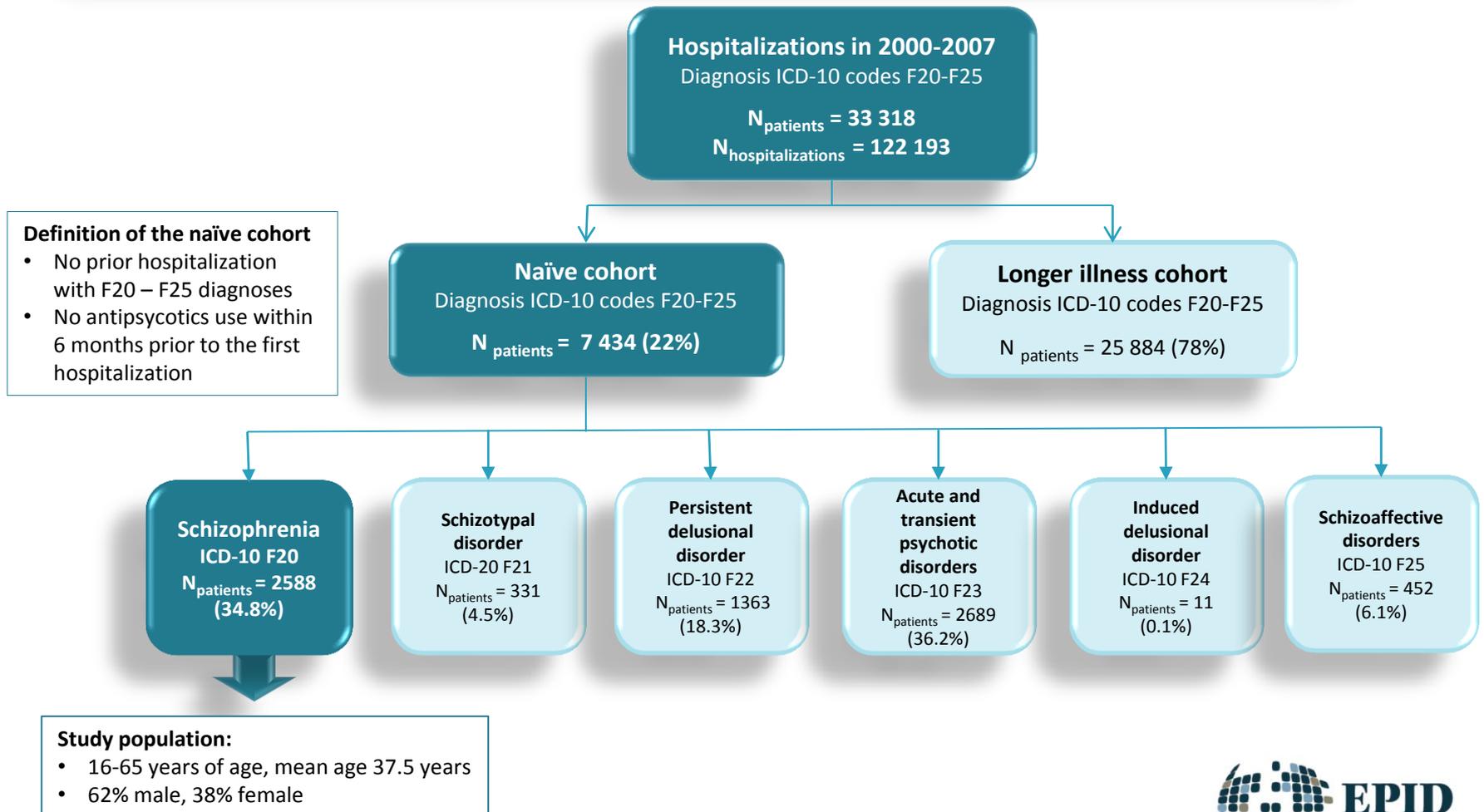
- Hazard ratios with 95% confidence intervals (CI) were calculated.

Data sources

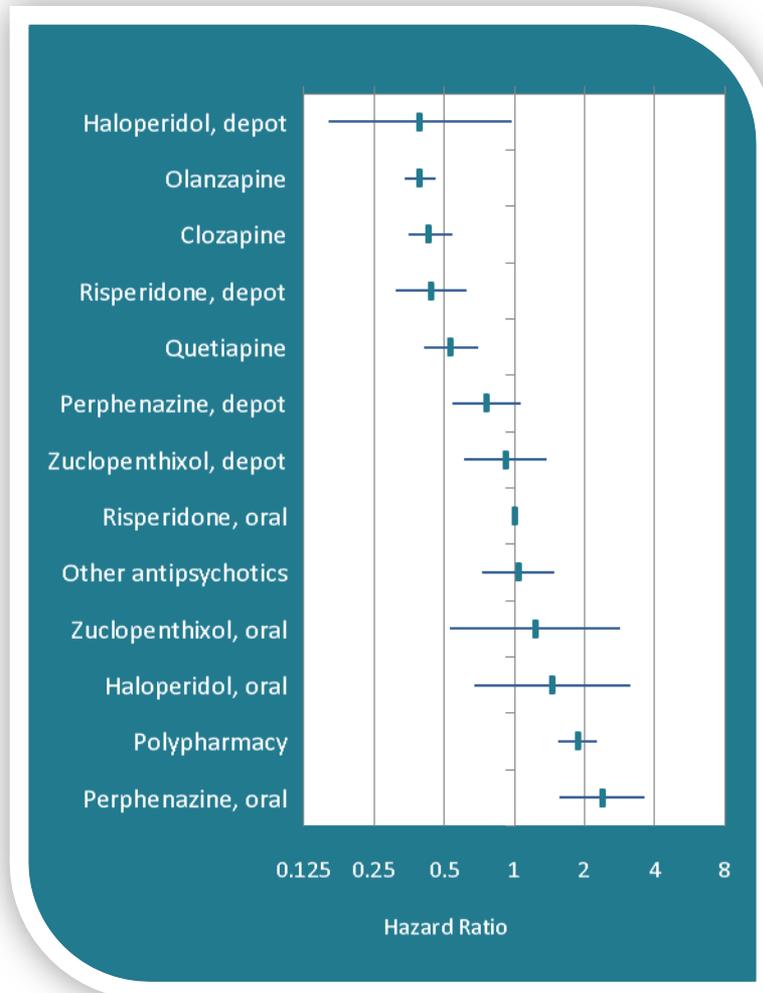
	<h3>Hospital Care Register</h3> <ul style="list-style-type: none">• Diagnosis ICD-10 codes F20-F25• Start and discharge date• Age, sex• Hospital & hospital district
	<h3>Prescription Register</h3> <ul style="list-style-type: none">• Drug substances ATC code N05A• Date of purchase• Amount (DDD)• VNR-code (package code)
	<h3>Cause of Death Register</h3> <ul style="list-style-type: none">• Causes of death (ICD10)• Date of death

- All patients with at least one hospitalization due to schizophrenia-related illness (ICD-10 codes F20–F25) during 2000-2007 were identified from the Finnish hospital care register.
- Data on medications, hospitalizations and mortality were collected for this study cohort.
- Focus on this article is on naïve patients who had a strictly defined schizophrenia diagnosis (F20) during their first hospitalization.

Description of study population

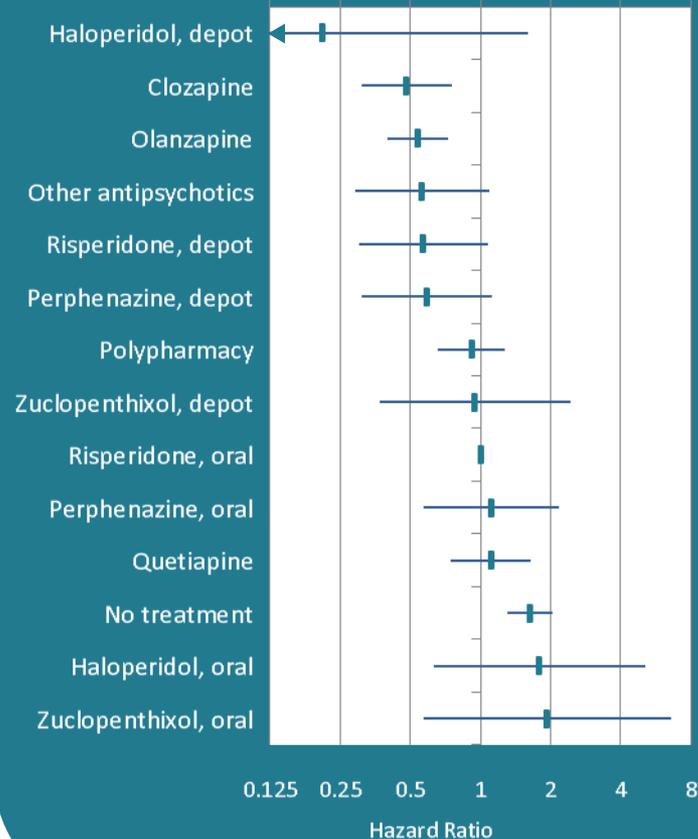


Risk of all-cause discontinuation of initial medication



- Of 2,588 patients with a first hospitalization
 - 1,507 (58.2%) used antipsychotic medication during the first 30 days after discharge
 - 1,182 (45.7% of total) continued using the initial antipsychotic medication for 30 days and longer
- During a mean follow-up period of 2 years 1,394 patients (53.8%) discontinued their initial antipsychotic

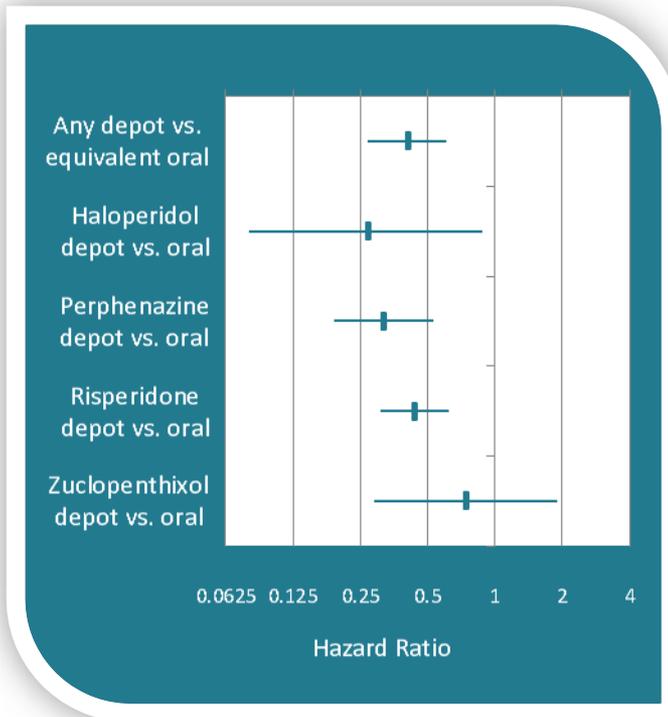
Risk of rehospitalization



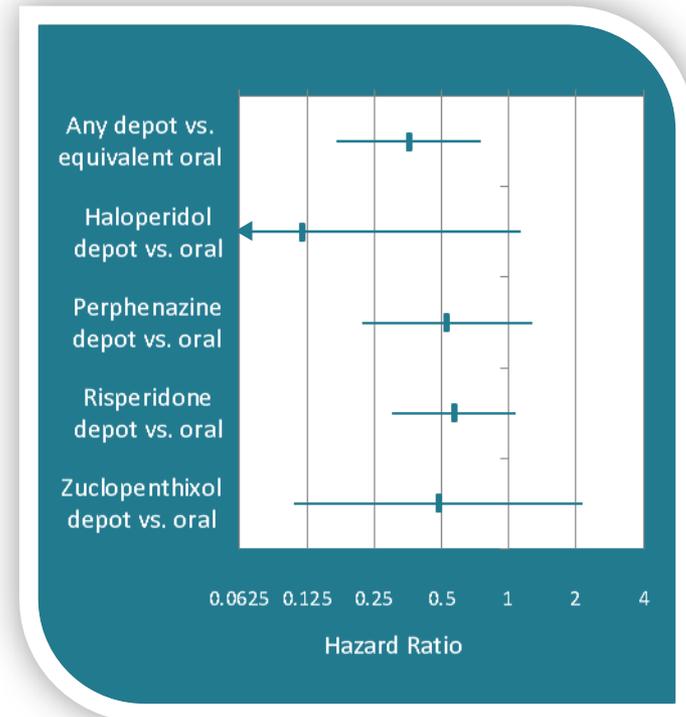
- During a mean follow-up period of 2 years , 1,496 patients (57.8%) were rehospitalized because of relapse of schizophrenia symptoms
- The use of any antipsychotic was associated with a 62% (95% CI 57%-66%) lower risk when compared to no treatment at all
- Oral clozapine and olanzapine were associated with lowest risk for rehospitalization

Pairwise comparison of depot vs. oral formulations

Risk of discontinuation of initial medication



Risk of rehospitalization



- In pooled analysis the depot antipsychotics were associated with a 59% lower risk of discontinuation (hazard ratio=0.41, 95% CI=0.27–0.61, $p<0.0001$) and with a 64% lower risk of rehospitalization (HR=0.36, 95% CI=0.17–0.75, $p=0.007$) than their respective oral formulations.

Conclusions

- The first study of the adherence and comparative effectiveness of specific antipsychotic treatments in a large unselected population of patients in a real-world setting.
- Only a minority of patients are adherent to their initial antipsychotic during the first 60 days after discharge from their first hospitalization for schizophrenia.
- Oral clozapine and olanzapine were associated with more favorable outcomes regarding treatment discontinuation and rehospitalization.
- Use of depot antipsychotics was associated with a significantly lower risk of treatment discontinuation and rehospitalization than use of oral formulations of the same compounds.
- Use of any antipsychotic was associated with a 55% lower mortality (hazard ratio=0.45, 95% CI=0.31–0.67) when compared with no antipsychotic treatment at all.

Acknowledgements

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