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Schizophrenia Antipsychotic Treatment Patterns and Costs in France

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REES France (Health Economics Evaluation Network)

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Objectives

- 1996: last survey about antipsychotic prescription patterns in France[*];

- 1995 and 1996: risperidone and olanzapine introduction in France;

- Need for an updated description of schizophrenia treatment patterns in the presence of atypical antipsychotics;

- Repercussions in the daily cost of treatment ?

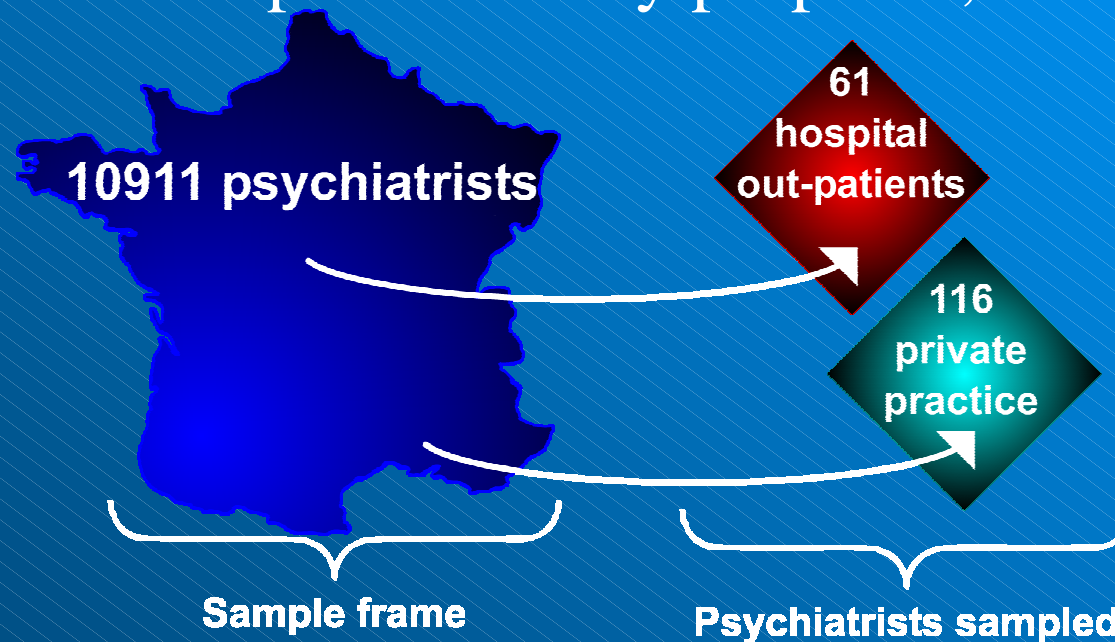[*] Fourrier A et al. Br J Clin Pharmacol. 2000 Jan;49(1):80-6.

Data Sources: Psychiatrists

"EpiSurvey"

- Cross-sectional epidemiological survey;
- November 2002 – February 2003;
- Two levels for representativity purposes;

10911 psychiatrists

61 hospital out-patients

116 private practice

Sample frame

Psychiatrists sampled

- 177 psychiatrists surveyed.

Data Sources: Patients

For each psychiatrist:

- Patient inclusion criteria:
  - Schizophrenic ambulatory patient;
  - Under antipsychotics for at least 6 months.
- **Registry** (n = 2741 patients)
  - All included patients seen in the month (max 25 patients);
  - →Treatment patterns information.
- **Detailed survey** (n = 1861 patients):
  - 3 treatment categories (olanzapine / amisulpride, risperidone, clozapine / typicals);
  - Max 9 (private practice) or 18 (hospital out-patients) adult included patients;
  - →Daily doses and co-prescriptions.

Statistical Analysis

- Multiple hierarchical weights to obtain population estimates;

- Generalized logit analysis:

  – Response variable: principal treatment prescribed (6 categories, reference category = Standard typical antypsychotic);

  – Covariates: patient characteristics, prescription source and co-prescriptions;

  → Identification of variables associated with current principal antipsychotic taken (association does not imply causation).

- Cost estimation based on drug presentation and daily doses.
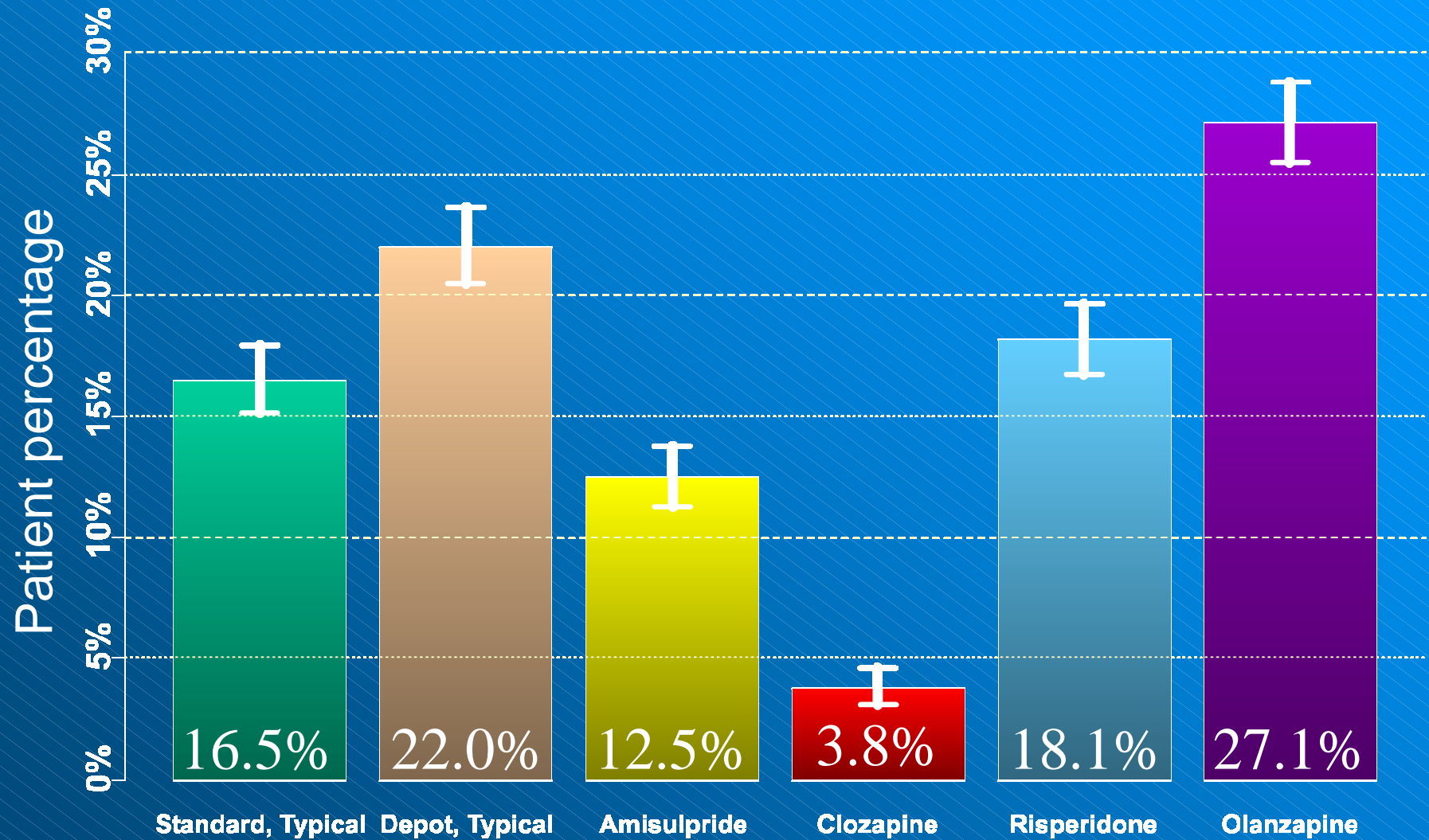
RESULTS

Patients' Broad Characteristics

- Mean age 40 years;

- 60% are men;

- 60% predominant positive symptoms;

- 60% followed by hospital psychiatrists.

- 30% $\geq$ 1 hospitalization during the year;

- 25% with a diagnosis < 5 years;

- 25% under legal protection;

Daily Cost Of Treatment
Weighted average DCT, ex-factory price

Treatment	Mean DCT (€/day)	Inter-Quartile Interval
All atypical	3.47	1.68 – 4.51
All standard typical	0.33	0.07 – 0.34
All typical*	0.30	0.17 – 0.28
All treatments	2.26	0.28 – 3.37

* Using for depot typicals only the estimated cost of Haldol Decanoas® (0.28 €/day)

Cost of principal antipsychotic prescribed (cost of co-prescriptions not included).

Treatment Patterns and Prescription Setting

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Color Legend:
- Ambulatory care prescriptions
- Hospital ambulatory prescriptions

Patient percentage

Standard, typical   Depot, typical   Amisulpride   Clozapine   Risperidone   Olanzapine
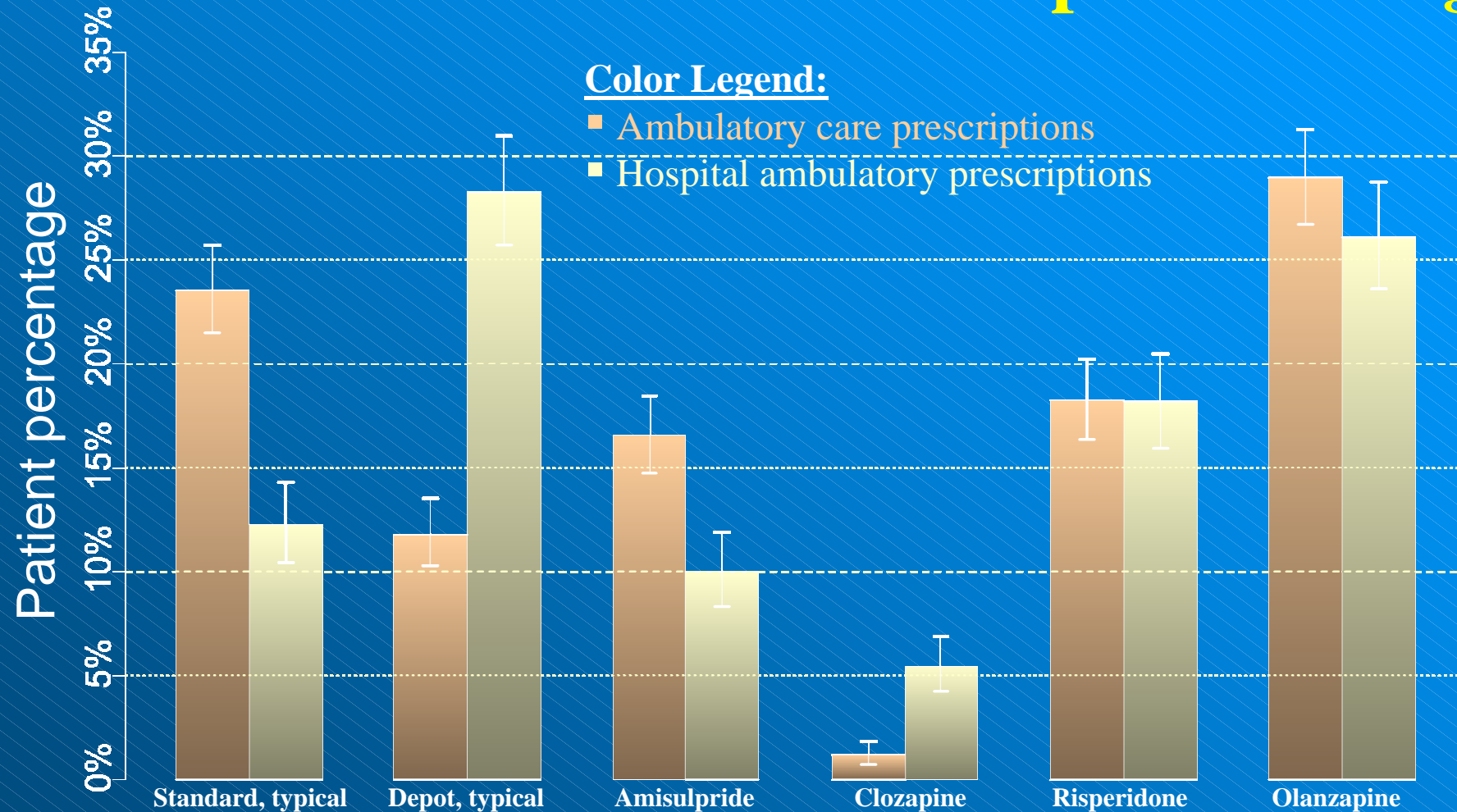
Ambulatory patients' prescriptions differ among ambulatory care and hospital psychiatrists.

Daily Cost Of Treatment and Prescription Setting

Treatment	Mean DCT (€/day)	
	Private practice	Hospital out-patients
All atypical	3.04	3.76
All standard typical	0.32	0.33
All typical*	0.31	0.29
All treatments	2.09	2.37

* Using for depot typicals only the estimated cost of Haldol Decanoas® (0.28 €/day)

Weighted average DCT, ex-factory price.
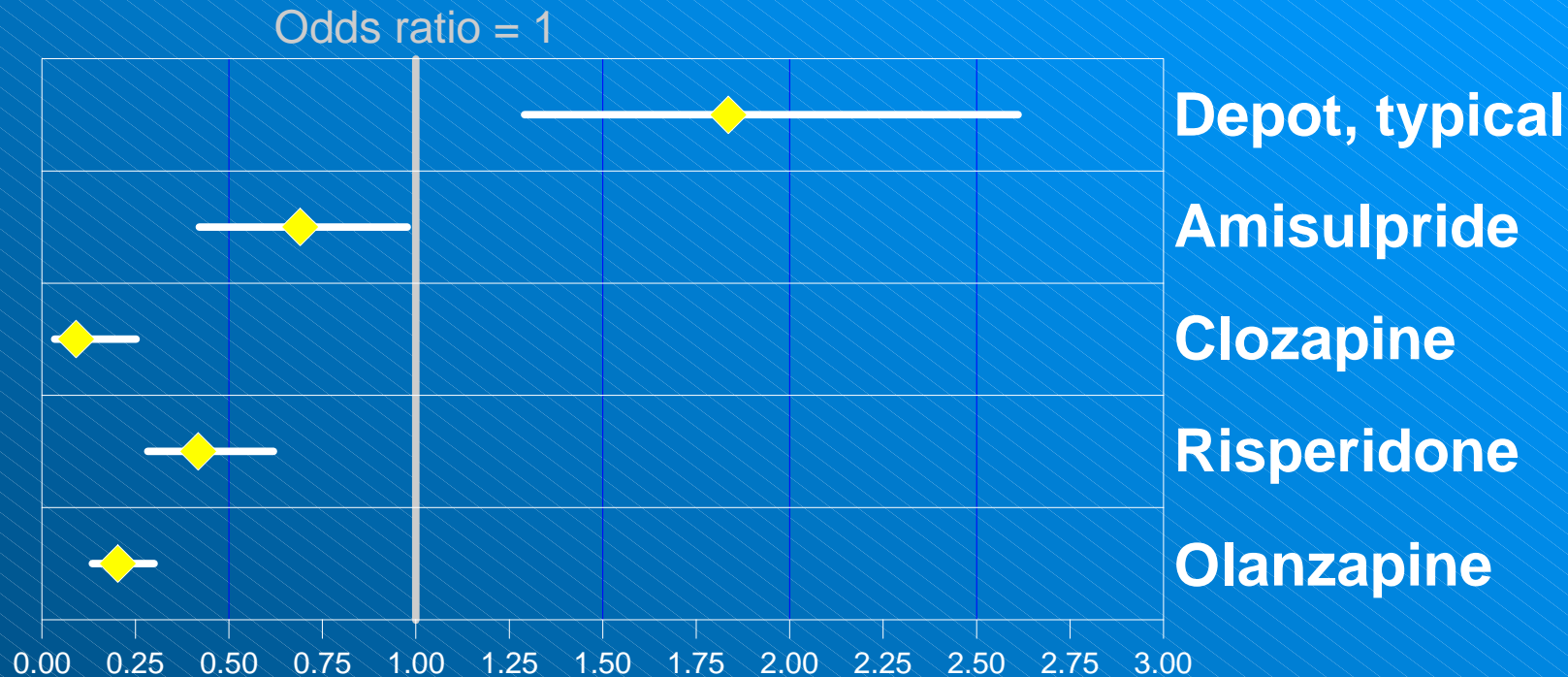Cost of principal antipsychotic prescribed (cost of co-prescriptions not included).

→ Ambulatory patients' mean daily cost of principal treatment differ among private practice and hospital psychiatrists.

Principal Treatment and Associated Variables

- 27 potential covariates for the multinomial logit model, 14 retained :

- Antiparkinsonians (p<0.0001)
- Hospital prescription (p<0.0001)
- Prescription change (p<0.0001)
- Age (p<0.0001)
- Legal protection (p<0.0001)
- Smoking (p<0.0001)
- Age of onset (p=0.0001)

- Antidepressants (p=0.0006)
- Anxiolytics (p=0.0007)
- Therapy without drugs (p=0.0027)
- Acute episode (p=0.0036)
- Living with relatives (p=0.0095)
- Hypnotics (p=0.0348)
- Toxicomania (p=0.0384)

p-values calculated using Wald Chi-squared tests (type III analysis of effects)

Example: Antiparkinsonians

Odds ratio = 1

Depot, typical

Amisulpride

Clozapine

Risperidone

Olanzapine

0.00 0.25 0.50 0.75 1.00 1.25 1.50 1.75 2.00 2.25 2.50 2.75 3.00

- When taking an antiparkinsonian treatment:
  - Adjusted odds depot typical > adjusted odds standard typical
  - Adjusted odds atypical < adjusted odds standard typical
- Consistent with the observation of higher risk of extrapyramidal symptoms when using typical antipsychotics.

CONCLUSION

Antipsychotic prescription is associated with other co-prescriptions and the patient's condition. The patterns of prescription remain complex.

Prescribing patterns have changed since the introduction of second-generation antipsychotics.

For a given antipsychotic, cost (i.e. dosage) differs between private practice and hospital settings.

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