

THE COST OF RELAPSE MANAGEMENT IN PATIENTS SUFFERING FROM SCHIZOPHRENIA IN ITALY AND SPAIN: COMPARISON BETWEEN LURASIDONE AND QUETIAPINE XR

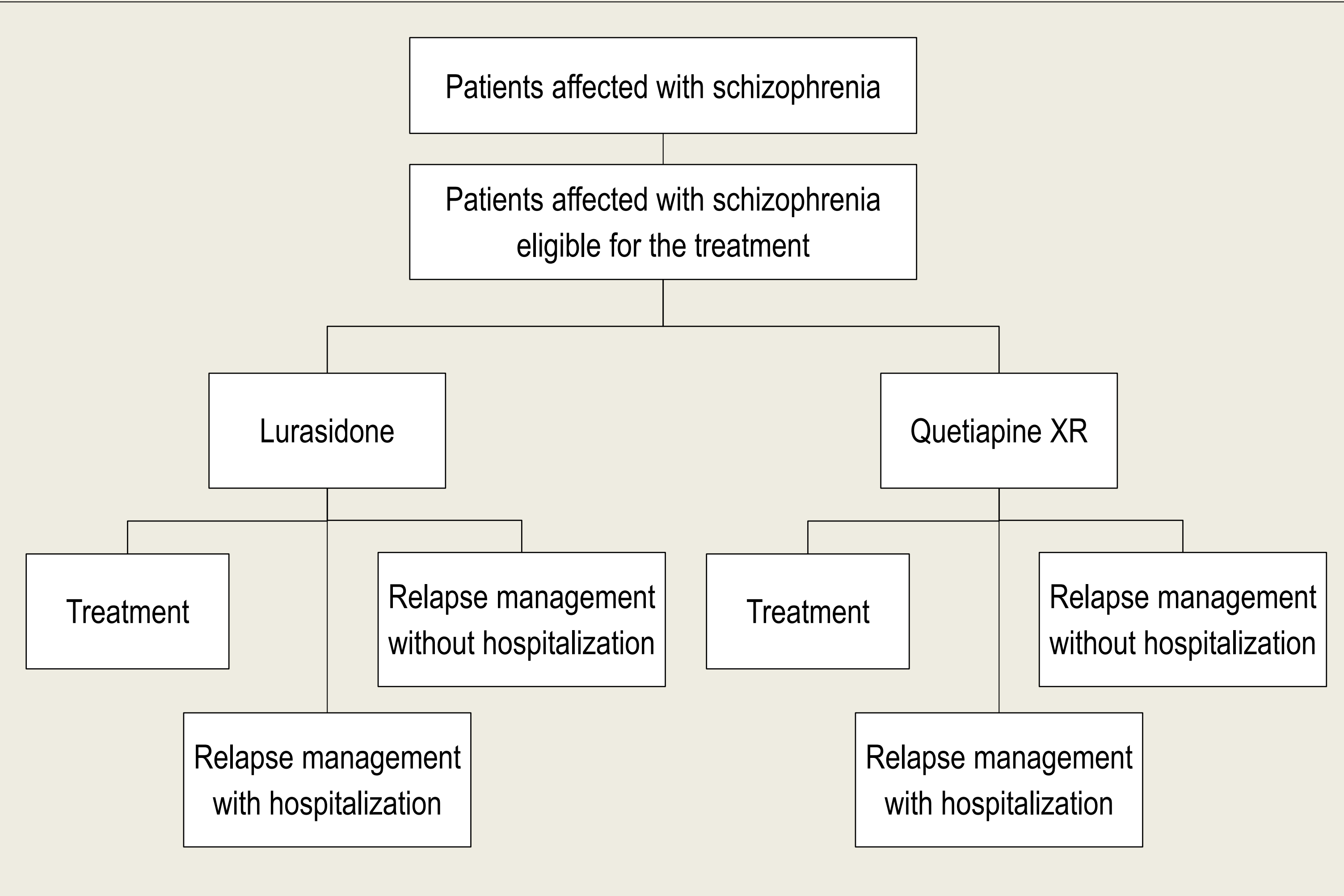
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BACKGROUND / OBJECTIVE

- The objective of the analysis is to assess the direct medical costs of relapse management in patients affected with schizophrenia in treatment with Lurasidone or Quetiapine XR assuming the perspective of the National Health Services of Italy and Spain.

METHODS

- Point of view:** National Health Services of Italy and Spain.
- A **health economic model** was implemented, based on a previously published decision tree.[1]
- Time horizon:** 1 year.
- Antipsychotic treatments** considered: Lurasidone Vs. Quetiapine XR
- Figure 1.** Schematization of the model.



- Target population:** adult patients affected with schizophrenia in treatment with antipsychotic drugs.
- Stable prevalence of schizophrenia over the years and low number of pediatric patients in treatment → the number of patients in treatment in each context has been considered as representative of the adult population treated in 2019 (data refers to 2017 in Italy and to 2008 in Spain).
- Table 1.** Target population in each national context.

National context	Target population	Reference
Italy	216,087	Italian Ministry of Health, 2018[2]
Spain	2002,000	[3,4]

- Probability of relapses** and **hospitalizations** associated with the use of the two drugs was derived from the study published by Loebel and colleagues.[5]
- The probability of relapses managed in inpatient at 12 months was considered as the probability of hospitalization at 12 months, while the probability of relapses managed in outpatient at 12 months was derived as the difference of the probability of relapse at 12 months and of the probability of hospitalization at 12 months.
- Table 2.** Probability of relapses and hospitalization.

	Lurasidone	Quetiapine XR	Reference
Probability of relapse at 12 months	23.70%	33.60%	Loebel, et al., 2013[5]
Probability of hospitalization at 12 months	9.80%	23.10%	Loebel, et al., 2013[5]
Probability of relapse managed in outpatient setting at 12 months	13.90%	10.50%	Calculated

- Direct medical costs** (inflated at year 2019 using inflation percentage change relative to average consumer prices)[6]: treatment and relapses managed with hospitalization, relapses managed in outpatient setting
- Treatment costs:** annual cost of Lurasidone and Quetiapine XR considered is calculated based on the price to the public. Posology: 74 mg for Lurasidone and the equivalent dose of Quetiapine XR of 300 mg.[7]

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METHODS

- Table 3.** Cost per tablet and mean annual cost per patient

Therapy		Italy	Spain
Lurasidone	Cost per tablet (74 mg)	2.59 €	2.33 €
	Annual cost per patient	946.00 €	850.58 €
Quetiapine XR	Cost per tablet (300 mg)	1.20 €	1.62 €
	Annual cost per patient	437.27 €	591.42 €

- Cost of relapses:** derived from literature → data published by in Berto et al. (2008) for the Italian context and by Dilla et al. (2014) for the Spanish context.[8,9]
- Table 4.** Costs of relapses.

Relapse	Italy[8]	Spain[9]
Cost of relapse management with hospitalization	5,628.2 €	4,657.7 €
Cost of relapse management without hospitalization	2,239.9 €	974.5 €

RESULTS

- Table 5.** Results of the analysis.

Context	Cost cathegory	Lurasidone (€)	Quetiapine XR (€)	Δ (€)
Italy	Therapy	204,418,688	94,488,362	+ 109,930,325
	Relapse with hospitalization	119,185,623	280,937,539	- 161,751,917
	Relapse without hospitalization	67,279,095	50,822,338	+ 16,456,757
	Total cost	390,883,406	426,248,240	- 35,364,834
	Cost per patient	1,808.9	1,972.6	- 163.7
Spain	Therapy	171,817,232	119,467,177	+ 52.350.055
	Relapse with hospitalization	92,203,217	217,336,154	- 125.132.937
	Relapse without hospitalization	27,362,181	20,669,273	+ 6,692.908
	Total cost	291,382,630	357,472,603	- 66.089.974
	Cost per patient	1,442.5	1,769.7	- 327.2

- The use of Lurasidone (74 mg) compared with Quetiapine XR (300 mg) would lead to a reduction of direct medical costs in Italy and Spain, with a lower cost per patient of – 163.7 € and - 327.2 € respectively.

DISCUSSION / CONCLUSIONS

- The target population considered does not reflect the real number of patients that will be treated with Lurasidone or Quetiapine XR in each national context, but the results approximate the potential impact of the use of Lurasidone in case all eligible patients would be treated with it, compared with Quetiapine XR.
- The cost of relapse management in Italy and Spain might not reflect the actual cost of the event, due to the fact that the costs considered are referred to analyses conducted more than 10 years ago. The uncertainty over this aspect has been managed in a sensitivity analysis, showing a limited impact on the differential cost between the two scenarios.
- The analyses conducted show that the use of Lurasidone (74 mg) compared with Quetiapine XR (300 mg) would lead to a reduction of direct medical costs in Italy and Spain.



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