

**Background**

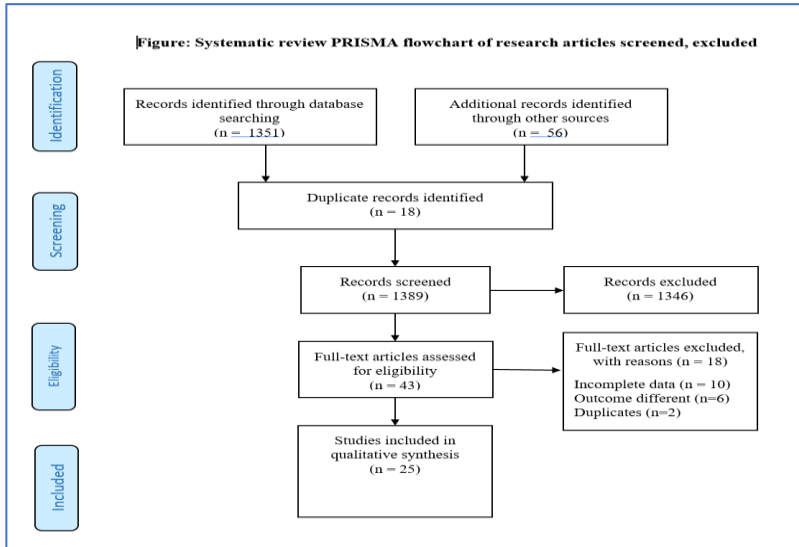
- The use of Long acting injectable (LAIs) could potentially be cost saving from payer’s perspective. An additional LAI reimbursement in out-patient community setting would further decrease the economic burden of schizophrenia treatment easing pressure on the healthcare system.

**Objectives**

- The study aimed to conduct a systematic review (SR) on the economic burden of schizophrenia and role of LAIs in reducing healthcare resource utilization cost in Asia including China, Japan, Indonesia, Philippines, and Thailand.

**Methodology**

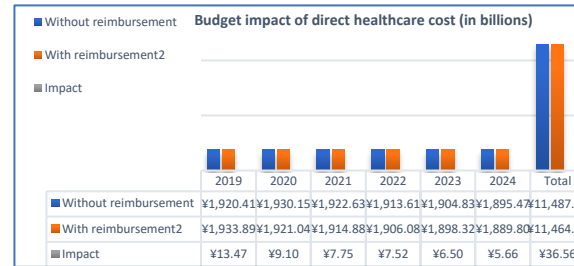
- A systematic literature search was conducted using PubMed and major psychiatric conferences until November 2021 to identify the studies evaluating schizophrenics treated with LAI antipsychotics.
- The search strategy utilized search terms (alone or in combination) related to LAI antipsychotics, budget impact analysis, cost benefit analysis, schizophrenia, psychiatric disorders etc. The Preferred Reporting Items for Systematic Reviews and Meta-Analyses (PRISMA) guidelines were followed.



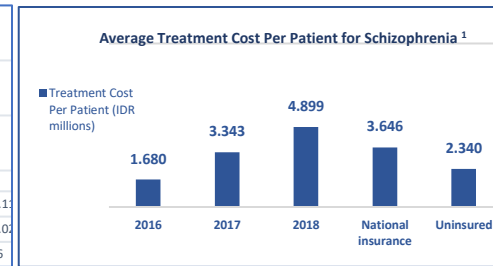
**Results**

- Out of 1,351 citations identified from PubMed search, and 56 from psychiatric conferences and cross referencing, 25 articles met the inclusion criteria and selected for final analysis. The studies involving cost of schizophrenia show variations in methodology and hence the cost results may vary consequently.
- In China and Indonesia, reported average annual treatment per patient costs for schizophrenia were \$6,853 and \$236, while Japan and Thailand estimated annual costs per patient (including direct and indirect costs) were \$30,000 and \$2,600, respectively.
- In Philippines, the annual per patient (private) costs were \$335-\$5,386 for in-patient and \$377-\$25,681 in out-patient setting. The results were consistent across studies that suggest use of LAIs reduces length of hospital stay, decreases hospitalization rate, and improves drug adherence rate.
- The economic evaluation of LAI in five included studies indicates that the increasing use of LAI anti-psychotics is a cost-effective treatment option to ease the economic burden of schizophrenia.

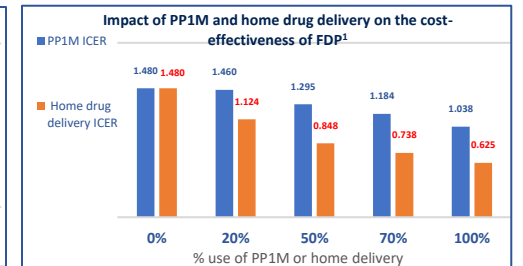
**1. Japan- Budget impact analysis of additional reimbursement of LAIs for schizophrenia using prevalence-based model**



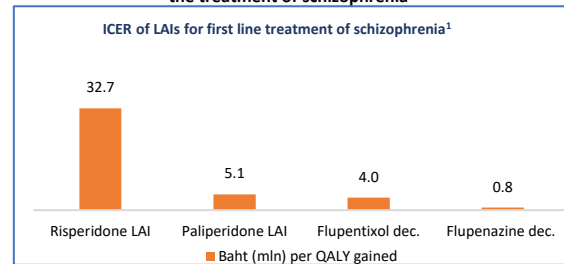
**2. Indonesia- Budget impact analysis and cost estimation of schizophrenia treatment**



**3. China - Cost-effectiveness of a free drug program (FDP)**



**4. Thailand- Economic evaluation of LAIs and oral antipsychotics for the treatment of schizophrenia**



**Key findings-**

- Japan-** The additional LAI reimbursement is essential to decrease the economic burden of schizophrenia treatment and to ease pressure on the healthcare system
- Indonesia-** The increase in the total cost by 0.4% as a result of the increased use of Paliperidone Palmitate by 1% and reduce number of admission and initial treatment reduced by 0.6%.
- China-** The cost-effectiveness of the FDP was acceptable and could be further improved by home drug delivery and long-lasting injection treatment.
- Thailand -** Haloperidol dec. as the most cost effective among six LAIs for first line treatment of schizophrenia with oral medication non-adherence, followed by Flupenazine dec., Flupentixol dec., Paliperidone LAI, and Risperidone LAI
- Philippines-** 44% psychiatrists favor switching to or adding a long-acting antipsychotic as their preferred treatment option for addressing adherence problems.

**Conclusion**

- This study highlights potential advantages of LAIs to reduce the economic burden of schizophrenia. Despite the advantages, usage of LAI in clinical settings is limited in Asian countries. Hence, effective resource allocation and utilization is necessary to improve the access of LAIs to reduce the economic burden.

**Conflict of Interest**

Verma A, Pruthi J, Krishna A, Rai MK are employees of EVERSANA, and Rao A was an employee of EVERSANA at the time of this study conducted.

**References**

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