

Use of Long-Acting Injectables Versus Oral Antipsychotics Among Indigent Populations: A Systematic Review

Presented by Brooke Ryan, BSN, RN
St. David's School of Nursing, College of Health Professions, Texas State University

Introduction

- Schizophrenia is a severe psychiatric disorder which affects perception, behavior, daily functioning, and disturbances in thought from the presence of delusions, hallucinations or disorganized speech.
- Approximately 3,810,000 people are being treated for schizophrenia in the United States alone.
- Estimated cost of schizophrenia in the United States is \$155.7 billion; it increases unemployment and poverty, and it is estimated that as much as 25% of the homeless population has schizophrenia.
- First line of treatment for schizophrenia is an antipsychotic medication which comes in two available options, long-acting injectable antipsychotics (LAIAs) or oral antipsychotics (OAs).
- Despite the evidence that cost is equal or reduced, and treatment outcomes are improved, LAIA is under-prescribed for indigent people with schizophrenia.
- Long-acting injectable antipsychotics in the treatment of schizophrenia have been shown to improve adherence to treatment, psychosocial outcomes, criminal behavior, and relapse prevention, compared to oral medication.
- Clinical practice guidelines (CPGs) are useful for mental health professionals, but unfortunately, CPGs are not updated as regularly in mental health as they are in other fields of medicine

Purpose

- Long-acting injectables are rarely offered by providers or considered as treatment options after a patients first episode.
- The purpose of this systematic review was to examine the cost and effectiveness of the use of long-acting injectable antipsychotics compared to oral antipsychotic medication in indigent populations.

PICO Question

In indigent populations with schizophrenia, how do long-acting injectable antipsychotics compare to oral antipsychotics with respect to cost, housing stability, and treatment outcomes?

Methods

- Conceptual framework:** Framework of Prevention by Nancy Milio, RN, asserts a population's overall health cannot improve without patient having knowledge of resources available, as well as access to those resources.
- Study design:** Systematic review.
- Search dates:** Published between 2012 and 2022
- Search terms:** "long-acting injectables," "schizophrenia," "homeless," "oral medication," and "cost."
- Databases used:** PubMed, CINAHL, and Medline
- Inclusion Criteria:** Study addressed all or part of the PICO question; was primary research, written in English.
- Quality appraisal:** Joanna Briggs Institute Critical Appraisal Checklist was used to assess articles for quality.

Findings: Characteristics of the Studies

- Designs:** One prospective, longitudinal, naturalistic 3-year cohort study; One observational, retrospective study (case series); Two retrospective cohort studies; Two prospective, uncontrolled trials (case series); One analytical cross-sectional study
- Quality appraisal:** All articles scored 55% or higher.
- Purposes of the studies:** Four of the studies addressed homelessness or housing stability directly; Three studies addressed the effectiveness and cost of the treatment options.
- Sample sizes:** Ranged from 30 - 4604, with one outlier being the VA study which had 2,882,993 participants.
- Settings/Data Collection:** Community mental health centers, shelters, early intervention services, hospital/insurance claim records

Findings: Synthesis of Themes Across Studies

Theme 1: LAIA's decreased costs

- Three of the studies found that using LAIAs both directly and indirectly decreased cost and economic burden due to decreased ER visits, hospitalizations, and relapse (Latorre et al., 2020; Marcus et al., 2015; Shah et al., 2018).

Theme 2: LAIA's improved housing stability

- The four studies that addressed homeless patients with schizophrenia, were similar in that they all showed an improvement in their level of functioning after using LAIAs (Abdel-Baki et al., 2022; Sajatovic et al., 2013; Sajatovic et al., 2017; Tsai et al., 2020).

- Two studies showed significant improvement in housing stability after using LAIAs (Abdel-Baki et al., 2022; Sajatovic et al., 2013).

Theme 3: LAIA's improved medication adherence and functioning

- Five of the seven studies showed that LAIA improved medication adherence in schizophrenia patients in comparison with oral antipsychotics (Marcus et al., 2015; Sajatovic et al., 2013; Sajatovic et al., 2017; Shah et al., 2018; Tsai et al., 2020).

- <2% HUH had LAIA Rx even though the LAIAs resulted in improved adherence and functioning (Tsai et al., 2020).

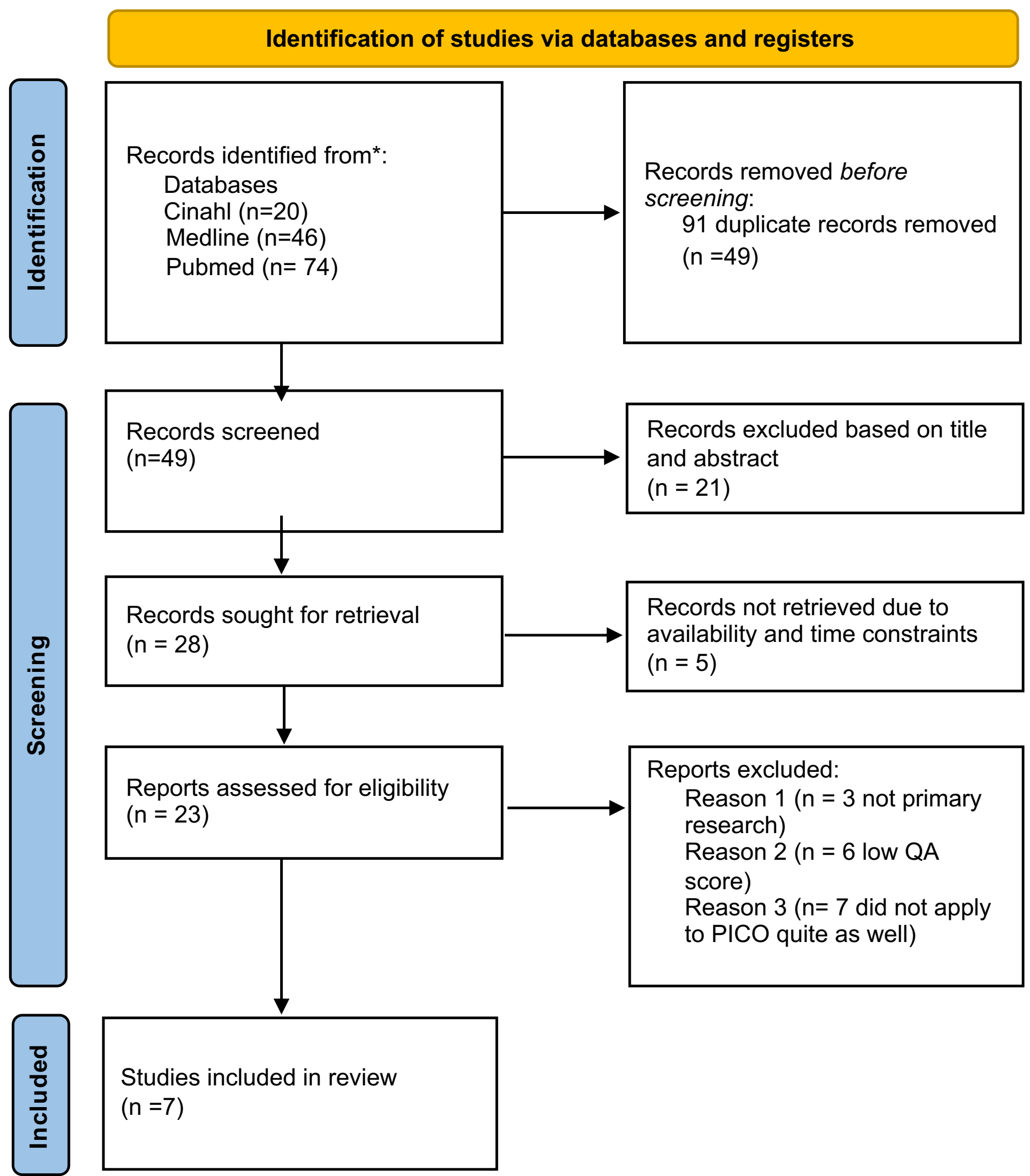
Recommendations for Practice

- Educate ourselves as providers on all treatment options, taking into consideration the patient's needs on a social services level
- Get involved in local and statewide politics to advocate for indigent patients.
- Update clinical practice guidelines
- More research needs to be done on the cost and effectiveness of LAIA, especially among indigent populations
- Homeless patients diagnosed with schizophrenia should be offered LAIAs sooner, and possibly as a first-line option

Implications for Future Work

- Treatment of schizophrenia is not as simple as treating the symptoms of the disorder, but also providing treatment to allow patients success in society
- Clinical practice guidelines are not updated regularly and may not be the most helpful tool in determining a patient's course of treatment
- Cost of LAIAs per person per year (PPPY) is greater than that of OAs, but PPPY medical costs are lower, balancing out the initial pharmaceutical costs
- More research needs to be done on LAIAs compared to OAx, especially among indigent populations

Flow Diagram



References available upon request

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