Schizophrenia 2024

ICER SNAPSHOT

The ICER Snapshot is a summary designed to help patients and the broader community learn about the key results and recommendations from ICER's 2024 Final Evidence Report on KarXT for Schizophrenia.

The information included is up to date as of February 2024. New information about these therapies may become available, but is not captured here.

Let's Take a Look

What is Schizophrenia?

Impact on Individuals and Families

Treatments: Benefits and Risks

Treatments: What's A Fair Price?

Policy Recommendations & Impact of Engagement



What is Schizophrenia?

Schizophrenia is a serious mental illness that affects how a person thinks, feels, and behaves. The symptoms are typically separated into three general categories: **positive symptoms** (the presence of symptoms such as hallucinations or mixed up speech); **negative symptoms** (the absence of typical behaviors such as social interactions or enjoyment of activities), and **cognitive symptoms** (difficulty with mental activities such as attention and memory).



Schizophrenia affects about 3.9 million people in the United States. Black Americans are twice as likely to be diagnosed with schizophrenia as White Americans and have worse outcomes.

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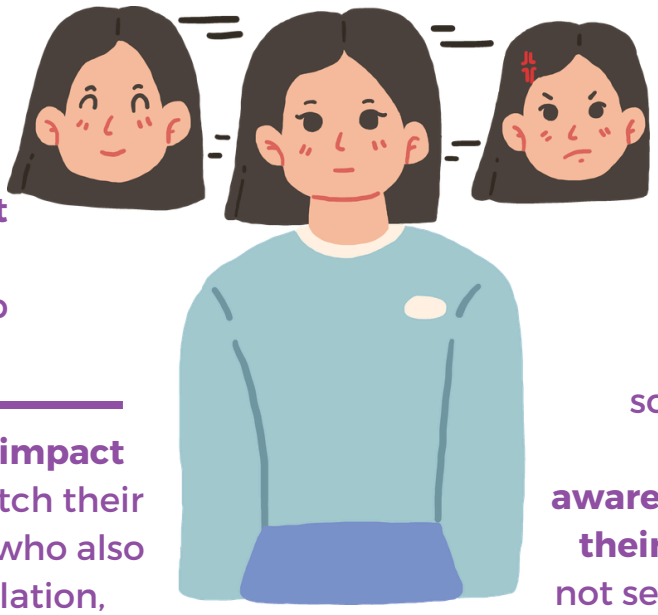
Impact on Individuals and Families

What ICER Learned from the Community

People with schizophrenia experience difficulty in keeping up with **day-to-day tasks** such as keeping a job, staying in school, and connecting with others.

It is **common to be misdiagnosed** initially; can take years for a correct diagnosis with schizophrenia and finding a treatment that manages symptoms well enough.

The **stigma** around schizophrenia as well as the **shortage of trained mental health providers** can lead to difficulty in finding care.



Even the drugs that work well come with many **side effects that impact quality of life**, causing people to stop treatment.

People **live in fear** of saying or doing the wrong thing. The social isolation causes deep **loneliness**.

There is an **enormous impact on caregivers** who watch their loved ones suffer and who also experience stigma, isolation, and daily sacrifices to offer care.

50% of people with schizophrenia experience anosognosia, **a lack of awareness and acceptance of their disease**, which leads to not seeking or properly taking treatment.

Treatment of Focus

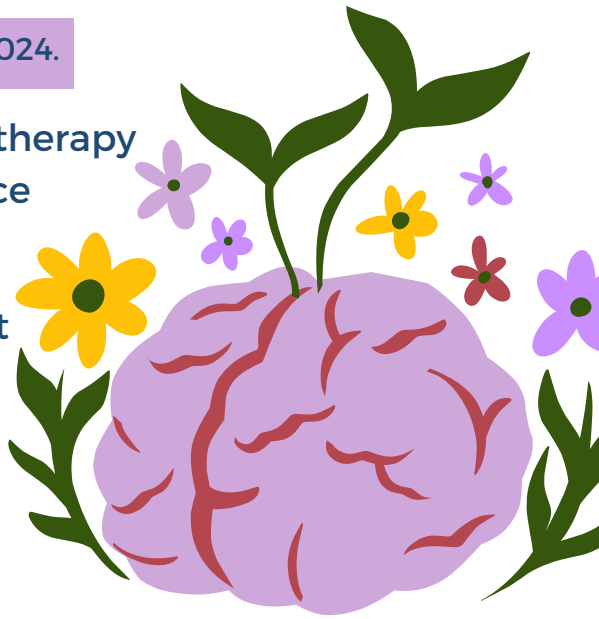
KARXT

KarXT is under FDA review as of February 2024.

Developed by Karuna Therapeutics, KarXT is a therapy that people with schizophrenia take orally twice a day. KarXT is made up of two parts:

1) It activates certain receptors in the brain that may help improve the positive, negative, and cognitive effects of schizophrenia

2) It targets and reduces the side effects of activating the receptors in the first part



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What Did Clinical Trials Show?

KarXT vs. Placebo: For patients in acute hospital setting for 5 weeks

- **DECREASED** symptoms
- **IMPROVED** response to treatment

KarXT vs. Second-Generation Antipsychotics:

An indirect comparison of KarXT to three antipsychotics (aripiprazole, olanzapine, risperidone) in acute hospital setting for 5 weeks

- **LESS** weight gain*
- **MORE LIKELY** to discontinue KarXT*

These represent some, but not all outcomes that were measured in the clinical trials.
*These differences were statistically significant when compared to olanzapine & risperidone only.

Safety of KarXT

Most of the common side effects of KarXT affected the digestive system such as nausea, vomiting, and diarrhea. Given the length of the clinical trials, we have no data on the safety and potential side effects of KarXT beyond five weeks.

ICER's report findings are NOT recommendations that support the use of KarXT. Individuals and families should always talk with their doctors to make shared decisions about treatment for schizophrenia.

What We Still Don't Know

- How well KarXT works after five weeks
- If KarXT causes side effects after five weeks
- If KarXT causes any long-term movement disorders
- How well KarXT works when directly compared to other antipsychotics
- If KarXT prevents relapses or promotes return to work/school/social life
- If KarXT will have the same clinical effect outside of the hospital setting

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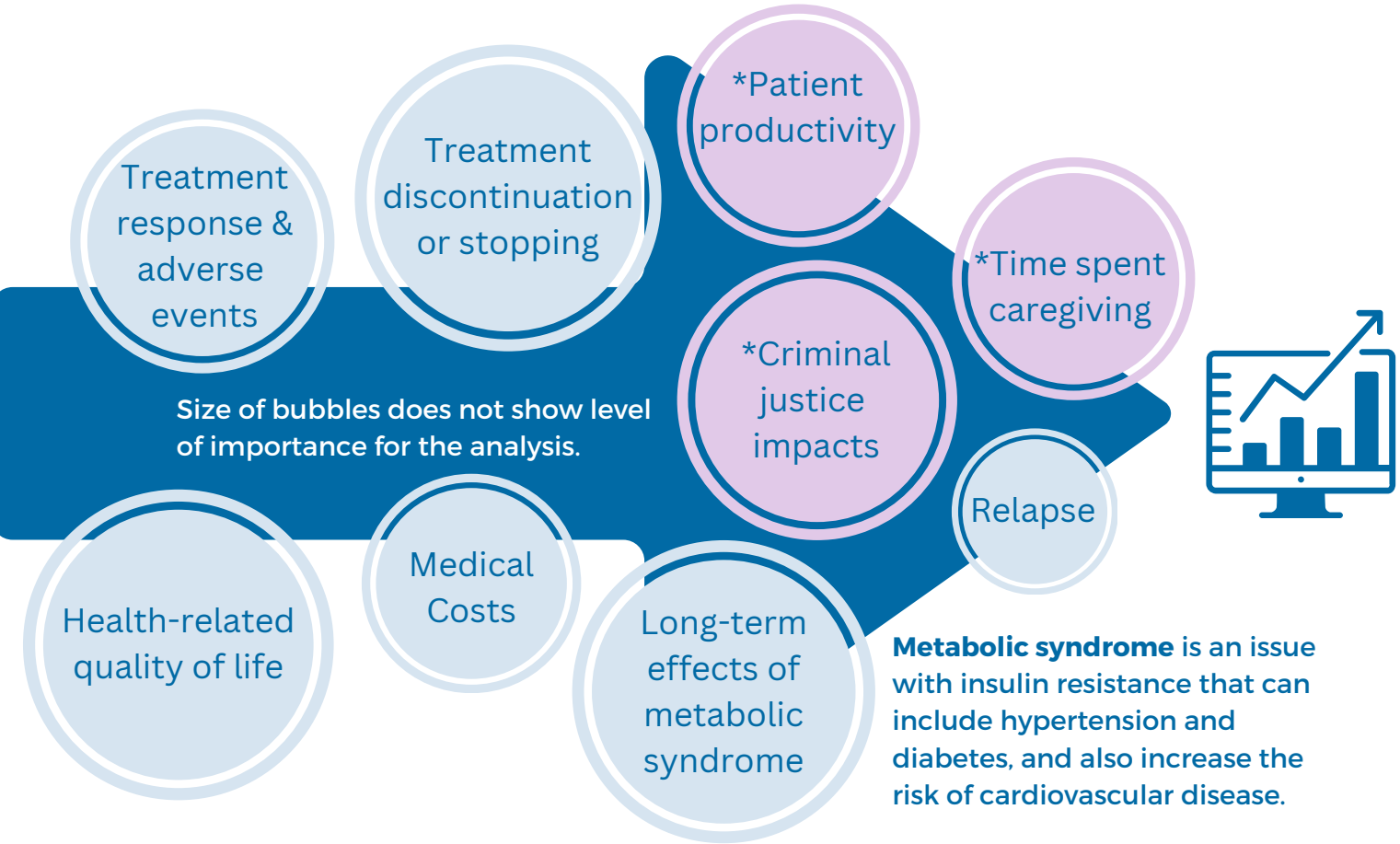
How Did ICER Calculate a Fair Price?

Using economic modeling, we calculated the cost effectiveness of KarXT compared to current standard of care. See below for what types of information ICER considered to calculate a fair price range for this treatment.

Population

Adults with schizophrenia who were not considered to have treatment-resistant schizophrenia

Factors Included in ICER's Economic Analysis



Metabolic syndrome is an issue with insulin resistance that can include hypertension and diabetes, and also increase the risk of cardiovascular disease.

Fair Price Range for KarXT

$16,000 to $20,000 per year

A fair price is how much a treatment should cost based on how well it works for patients. Our economic analysis concluded that the fair-price range for KarXT is between $16,000 to $20,000 per year, when assuming that KarXT does not increase the risk of metabolic syndrome over the long-term.

***Patient productivity, hours spent caregiving, and criminal justice impacts were not included in calculating the fair price range. See full report for how these inputs were factored into other economic results.**

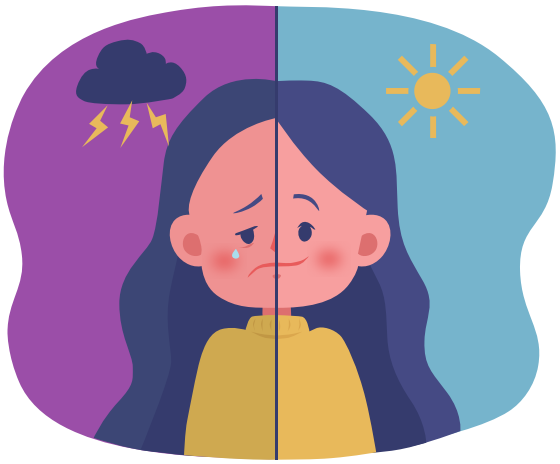
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Key Policy Recommendations

The Policy Roundtable at the ICER public meeting informed several policy recommendations for pricing, access, and future research in schizophrenia. A few key recommendations are summarized below.

1 New treatment options should help improve comprehensive care for people with schizophrenia and reduce health inequities, particularly for Black Americans.

Safe, and effective comprehensive treatment for schizophrenia remains a significant unmet health care need for all Americans, and Black Americans suffer disproportionately. The failure of broader societal safety nets and **high costs for medications** can create significant barriers to access and adherence. Funding should help **increase the number of inpatient beds and allow for longer hospital stays.** Patients should be given enough time to stabilize on a therapy prior to discharge and have access to humane, **supervised housing** to ensure a smooth transition. Outpatient care should not be limited to medical management but but instead include increased **combination approaches to therapy.**



2 Payers should only require step therapy for KarXT when it provides adequate flexibility to meet the needs of diverse patients.

Clinical experts felt it reasonable for payers to require at least one therapeutic trial of a second generation antipsychotic drug at adequate dosing and duration prior to covering KarXT. If patients do not receive adequate benefit, and/or if they experience significant weight gain or have other adverse effects from initial treatment, KarXT would be a reasonable second or third-line agent. **Patients with pre-existing diabetes or cardiovascular disease should be able to bypass any step therapy** should long-term studies confirm the safety of KarXT.

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3 Manufacturers should set prices that will foster affordability and good access for all patients by aligning prices with the patient-centered therapeutic value of their treatments.

In cases of great uncertainty, **initial pricing should err on the side of being more affordable.** This would allow more patients access while generating additional data on the real-world effectiveness of novel treatments. With more evidence of substantial patient benefit, manufacturers can **increase pricing in accordance with benefit.**

4 Research should directly compare real-world treatment options and engage patients at the beginning of the study design phase.

The FDA requirement of five-week placebo controlled trials for approval is inadequate. Multiple stakeholders expressed concerns about the lack of information directly comparing new treatments and the need for active comparator trials. **Patients and caregivers should be engaged at the earliest stages of research** in order to ensure the study design includes target populations, comparators, and outcome measures that matter to patients. Appropriate head-to-head trials **with follow-up of at least 12 months** would help to inform decision making by patients and clinicians.

Impact of Patient Engagement

The Schizophrenia & Psychosis Action Alliance directed ICER to **data on work and caregiving time** that better described the **the societal impact of schizophrenia**.

Small-group discussions with people living with schizophrenia & caregivers helped ICER gain a **deep understanding of the lived experience with schizophrenia.**

Testimony from patient advocates at the public meeting helped shape ICER's recommendations for policy makers to **improve access to comprehensive care.**

The Institute for Clinical and Economic Review (ICER) is an independent nonprofit organization that does research on how well new treatments work and what a fair price should be. Patients and families should always talk with their doctor to make shared decisions about the best treatment option for them.

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