

# Schizophrenia: *Strategies to Overcome the Persistent Challenge of Medication Nonadherence and Its Effect on Patient Health Outcomes*

**Ilan Melnick, MD**

*Chief Medical Officer*

*Passageway Residences of Dade County*

*Miami, Florida*

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# Faculty Disclosure

- **Dr. Melnick:** Speaker—Alkermes, Lundbeck, Merck, Neurocrine, Otsuka, Sunovion, Takeda.

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# Learning Objectives

- Describe the challenges associated with effective schizophrenia management, including medication nonadherence and the consequences of its persistence
- Differentiate among available long-acting injectable (LAI) antipsychotics in terms of tolerability, efficacy in treating a broader spectrum of symptoms, and implications on patient adherence
- Develop comprehensive management strategies that support the long-term treatment of schizophrenia, mitigate medication nonadherence, and address patient-centric barriers to improved outcomes



# Persistent Challenges in Schizophrenia Management

# Views of Patients Experiencing First-Episode Psychosis

- Consecutively admitted patients with recent-onset schizophrenia disorders (N=56) were interviewed about
  - their **awareness of mental disorder** at first occurrence of psychotic symptoms,
  - their views about the **necessity of psychiatric treatment**,
  - their perception of **the role of others in initiating psychiatric treatment**,
  - and suggestions they might have about **getting treatment started at an earlier point in time**

# Views of Patients

## Experiencing First-Episode Psychosis (cont'd)

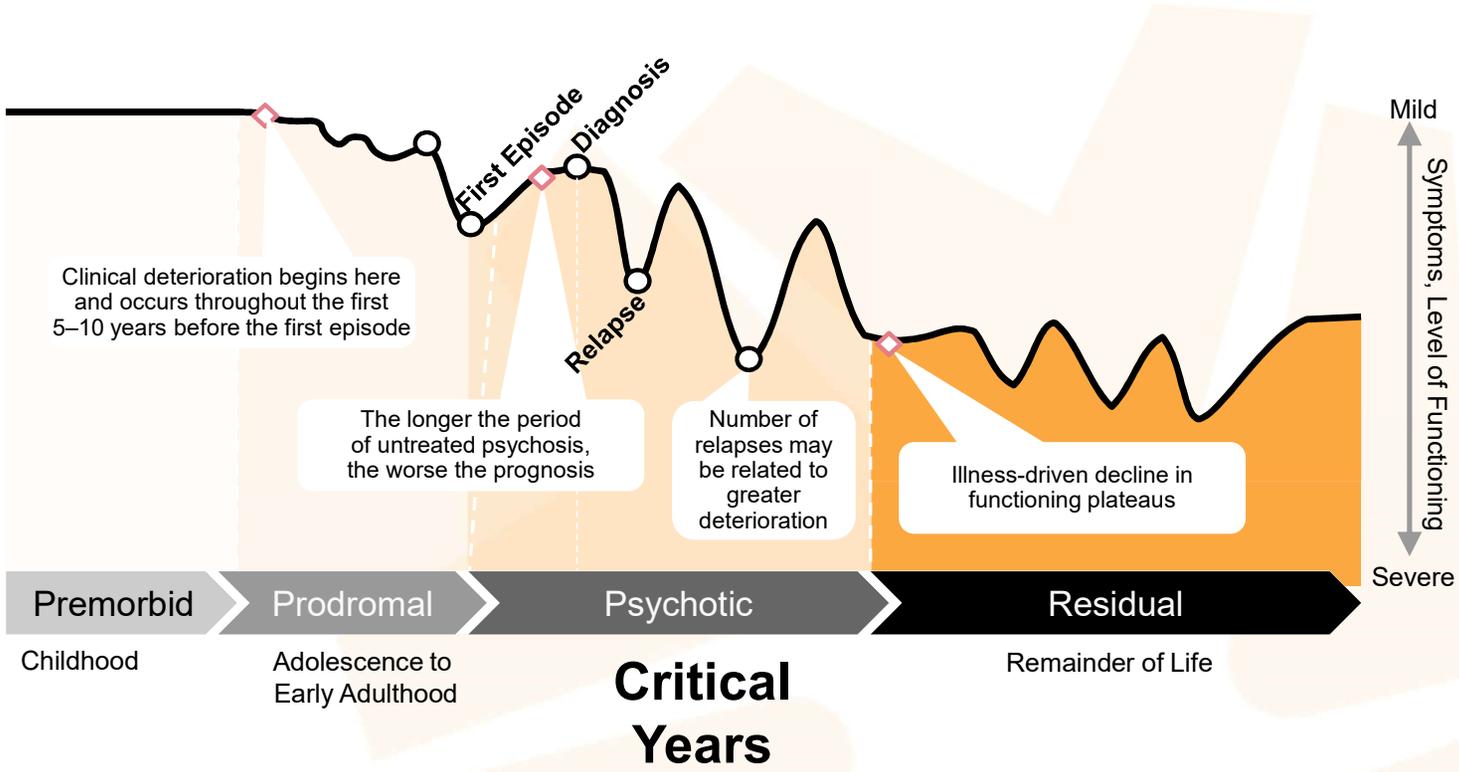
- About 57% of the patients had **at least some awareness** of having a mental disorder at onset of psychotic symptoms
- 61% of the sample believed psychiatric **help was unnecessary** prior to the start of psychiatric treatment
- A majority of the patients (91%) **perceived others to be essential in initiating treatment**
- Most patients (82%) thought that **no change is needed** on the part of professional caregivers in order to facilitate early treatment
- Some awareness of mental disorder at onset was related to a **shorter DUP**
- Delaying treatment until patients themselves become aware of the need for treatment may enlarge DUP

# Anosognosia

- A majority of individuals with schizophrenia have **poor insight** regarding the fact that they have a psychotic illness
- Evidence suggests that poor insight is a **manifestation of the illness itself** rather than a coping strategy. It may be comparable to the lack of awareness of neurological deficits seen in stroke, termed *anosognosia*
- This symptom predisposes the individual to **nonadherence with treatment** and has been found to be **predictive of higher relapse rates, increased number of involuntary hospital admissions, poorer psychosocial functioning, and a poorer course of illness**

# Irreversible Functional Decline Occurs with Each Relapse

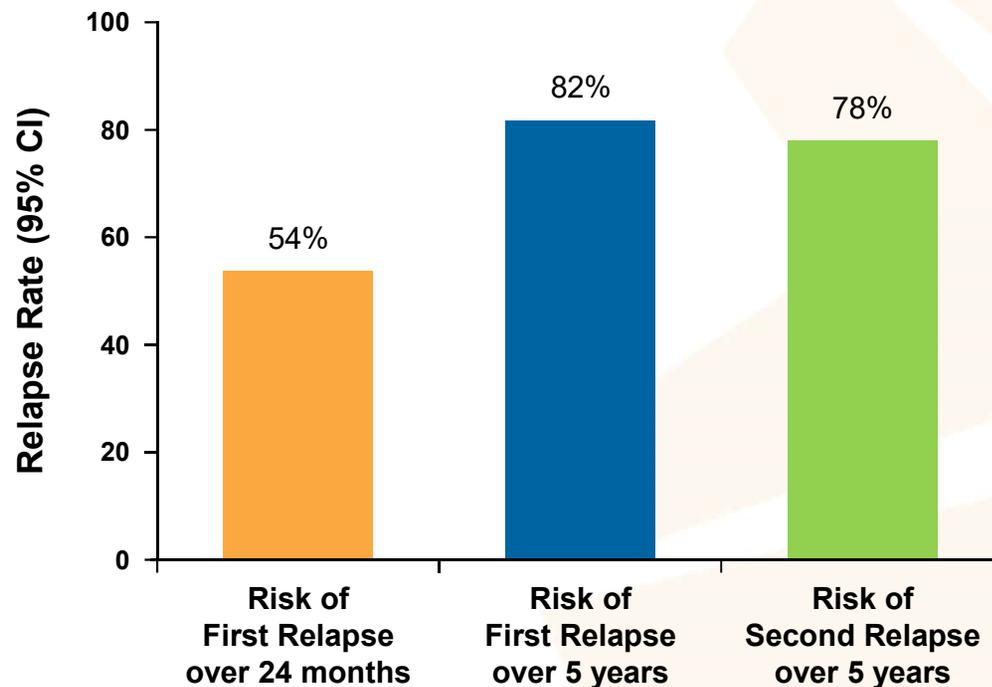
- Preventing relapse is a key goal in many international clinical guidelines for schizophrenia
- “Minimizing risk of relapse in a remitted patient is a high priority, given the potential clinical, social, and vocational costs of relapse”



Lieberman JA, et al. *Biol Psychiatry*. 2001;50(11):884-897.  
 APA Work Group on Schizophrenia. Practice Guideline for the Treatment of Patients With Schizophrenia. Second Edition. 2010. [https://psychiatryonline.org/pb/assets/raw/sitewide/practice\\_guidelines/guidelines/schizophrenia.pdf](https://psychiatryonline.org/pb/assets/raw/sitewide/practice_guidelines/guidelines/schizophrenia.pdf). Accessed February 22, 2019.  
 NICE. Psychosis and schizophrenia in adults: prevention and management. February 12, 2014. [www.nice.org.uk/guidance/cg178](http://www.nice.org.uk/guidance/cg178). Accessed February 22, 2019.  
 Barnes TR; Schizophrenia Consensus Group of British Association for Psychopharmacology. *J Psychopharmacol*. 2011;25(5):567-620.

# The Majority of Patients with Schizophrenia Will Relapse

## Relapse Rates among Patients Experiencing a First Psychotic Episode



**About 80% of first-episode patients suffered a relapse within 5 years**

# Risk Factors for Relapse

- Risk factors associated with failure to achieve or sustain remission after FEP include **insight deficits, comorbid substance use, and absence of support from family/important others**
- All of these factors contribute to relapse through the **final common pathway of interruptions in APM**
- Use of an **LAI APM** is recommended for patients with any of these risk factors

# Insight in First-Episode Psychosis

## BACKGROUND

- The relationships between insight and psychopathology, cognitive performance, brain volume, and comorbid depression were examined in 251 patients experiencing FEP, who were then randomly assigned to 2 years of double-blind treatment with either olanzapine or haloperidol

## METHOD

- Repeated measures of insight were obtained at baseline and 12, 24, 52, and 104 weeks by the Insight and Treatment Attitudes Questionnaire (ITAQ)

# Insight in First-Episode Psychosis (cont'd)

## RESULTS

- Older age, female gender, and white ethnicity were associated with more insight
- Higher total, positive, negative, and general psychopathology scores on the Positive and Negative Syndrome Scale (PANSS) were associated with less insight
- Higher depression scores were associated with more insight
- **Better neurocognitive function and large brain volumes were associated with more insight**

# Insight in First-Episode Psychosis (cont'd)

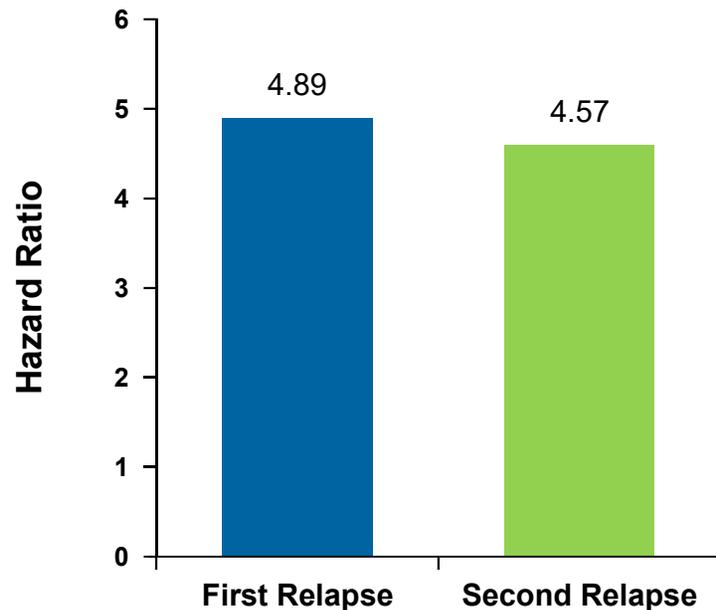
## RESULTS

- More insight throughout the study was associated with longer time to medication nonadherence
- Insight improved significantly over the course of the study

## CONCLUSIONS

- Multiple factors contribute to insight
- Patients experiencing FEP who have little insight are at increased risk of discontinuing their medication

# Stopping Medication is the Most Powerful Predictor of First-Episode Relapse



Sample of 104 patients with first-episode schizophrenia who responded to treatment of their index episode, but were at risk for relapse.

- Relapse risk is 5 × higher after a first-episode patient stops antipsychotic medication
- Predictors of nonadherence in first year:
  - Early adolescent premorbid adjustment ( $P < .01$ )
  - Worse premorbid cognitive function ( $P = .01$ )
  - Parkinsonian side effects ( $P = .01$ )
  - Worse executive function ( $P = .02$ )

# Consistent Medication Treatment is Key in Preventing Relapse

- ~50% of patients who discontinue/do not take antipsychotics will relapse within 3 to 10 months
- With drug discontinuation, there is no reliable indicator to differentiate the minority who will not relapse, from the majority who will relapse
- Within 2 years about 75% relapse when off medications vs 25% when on medications – medications are not perfect, but much better than not taking them
- Risk of relapse is 3 × as high ( $75/25 = 3$ ) when not taking medication
- Number needed to treat (NNT) is 2 ( $1/ [.75-.25] = 2$ )
- **For every 2 persons taking medication vs not taking medication you avoid 1 relapse event over a 2-year period**

Blackwell B. *Clin Pharmacol Ther.* 1972;13(6):841-848. Hirsch SR, et al (Eds). *Schizophrenia*. Oxford, England: Blackwell Science; 1995:443-468. APA Work Group on Schizophrenia. Practice Guideline for the Treatment of Patients With Schizophrenia. Second Edition. 2010. [https://psychiatryonline.org/pb/assets/raw/sitewide/practice\\_guidelines/guidelines/schizophrenia.pdf](https://psychiatryonline.org/pb/assets/raw/sitewide/practice_guidelines/guidelines/schizophrenia.pdf). Accessed February 22, 2019. Citrome L. *Acta Psychiatr Scand.* 2010;121(2):94-102.

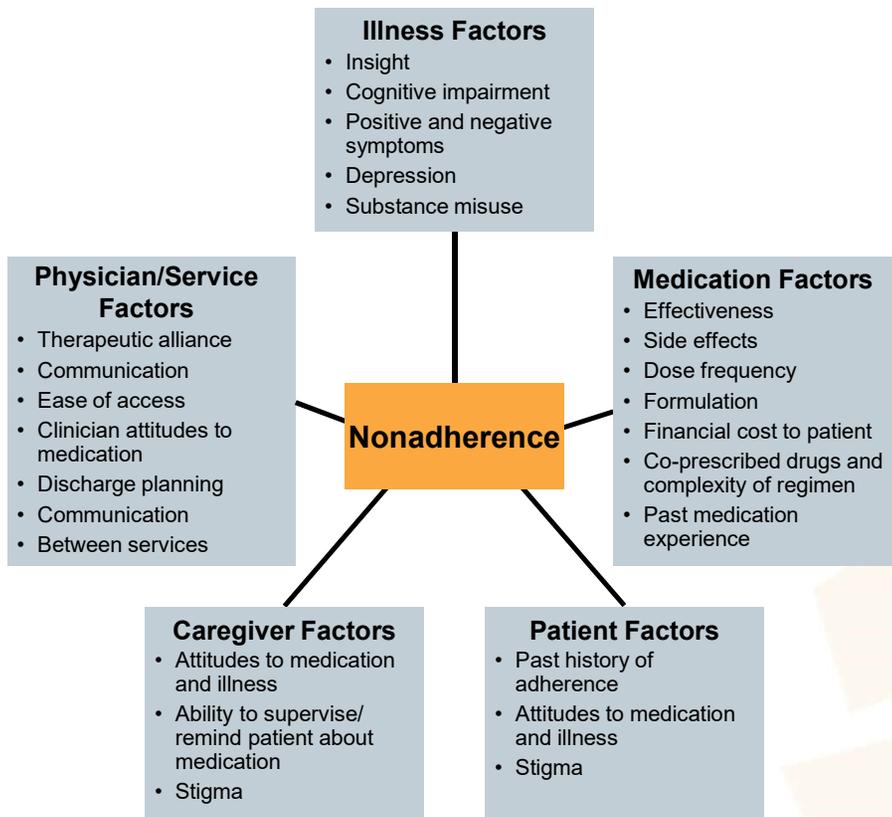
# Nonadherence

- Studies have shown that nearly half of patients take less than 70% of prescribed doses
- When nonadherence is covert, it might be incorrectly assumed that an agent is ineffective and may consequently result in an inappropriate change of treatment
- Clinicians require a greater awareness and index of suspicion; it has been shown that they greatly underestimate antipsychotic nonadherence

# Potential Clinical Consequences of Undetected Medication Nonadherence

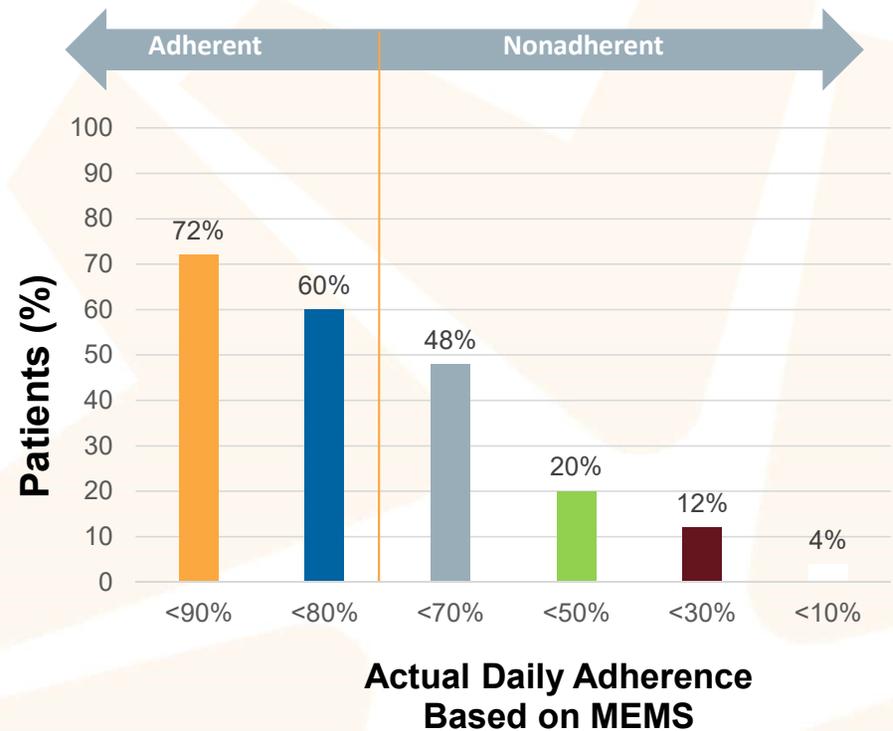
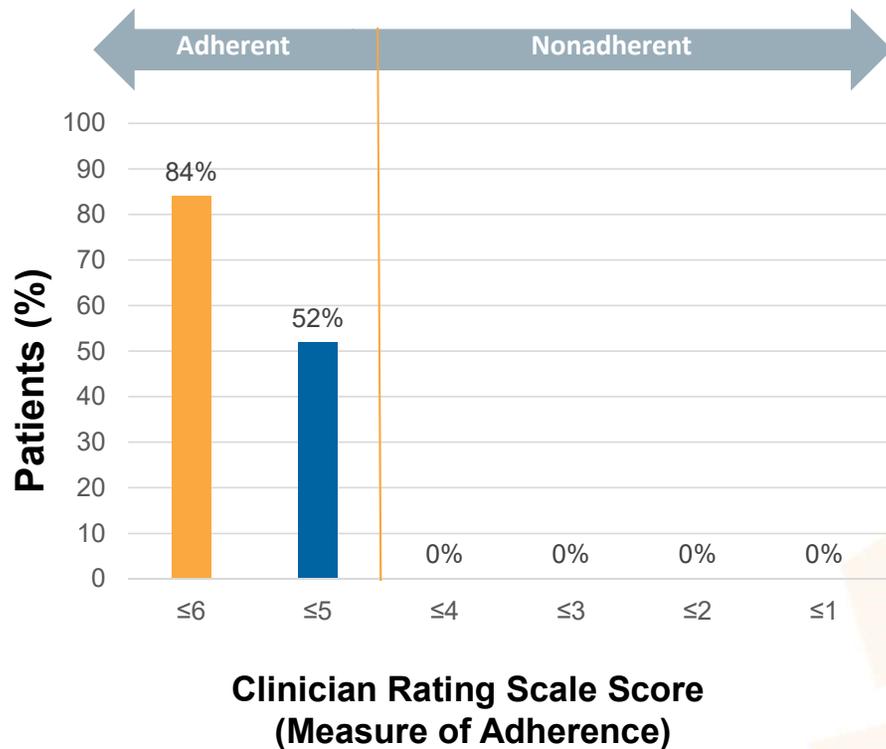
- Unidentified nonadherence may lead to unnecessary
  - Antipsychotic medication changes
  - Dosage increases
  - Concomitant antipsychotic medications
  - Labeling of patients as “treatment resistant”
- Identify patient adherence patterns then find the best treatment option

# Factors of Nonadherence



- Addressing adherence is a very complex and challenging task
- It requires a comprehensive approach to mitigating nonadherence

# Clinicians Overestimated Patient Adherence to Medication

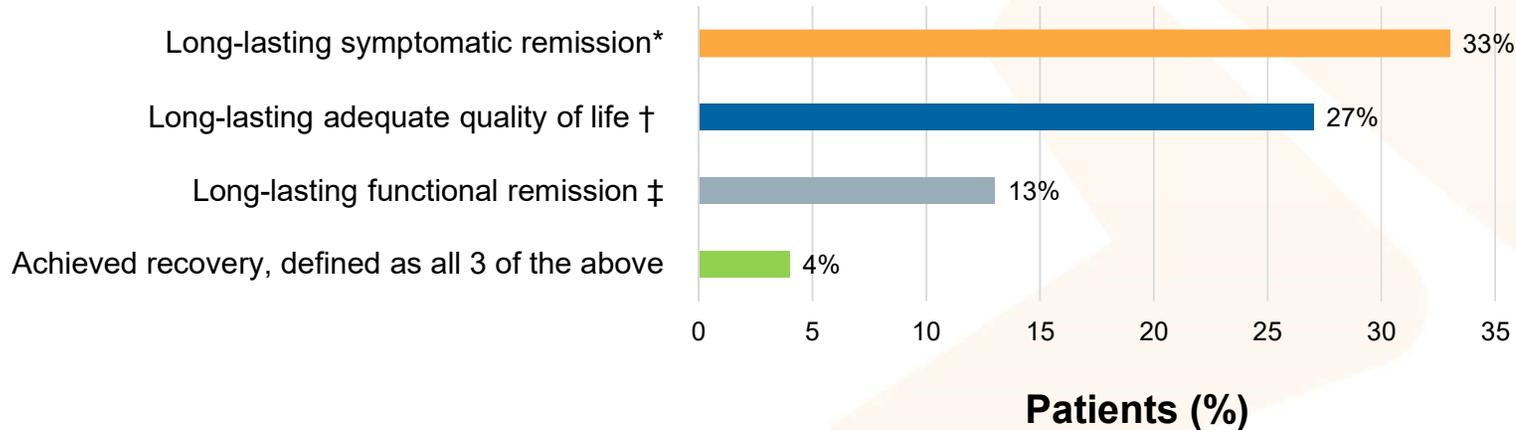


48% of the patients were nonadherent determined by the MEMS cap, while no patients were deemed nonadherent by the Clinician Rating Scale ( $P<.0001$ ). MEMS = Medication Event Monitoring System.

Byerly M, et al. *Psychiatry Res.* 2005;133(2-3):129-133.

# With Effective Treatment, Recovery is Possible

In a 3-year observational study, adults with schizophrenia (N=6642) achieved:



Employment, independent living, social activity, and medication adherence were all significantly associated with achieving recovery.

\*Defined as < 4 in the CGI-SCH (Clinical Global Impression-Schizophrenia scale) positive, negative, cognitive, and overall severity score, plus no inpatient admission for ≥ 24 months. †Defined as ≥ 70 on the EuroQoL5 dimensions visual analogue scale (EQ-5D VAS) for ≥ 24 months. ‡Defined as employed/student, plus independent living, plus active social interactions for ≥ 24 months.

Novick D, et al. *Schizophr Res.* 2009;108(1-3):223-230.

# First-Episode Schizophrenia

- LAIs have been recommended in involuntary hospital stays, with the goal of increasing treatment adherence among patients with FES, and of avoiding future deterioration
- Current guidelines, regarding FES, have a conservative position, but recent evidence suggests that these perhaps need to be updated
- Given the importance of continuous treatment in the early phases of schizophrenia, LAIs may also be a viable treatment option
- Using LAIs earlier, in the context of a shared decision-making approach, could reduce the negative image and stigmatization attached to LAIs

FES = first episode schizophrenia.

Brissos S, et al. *Ther Adv Psychopharmacol*. 2014;4(5):198-219. Stip E, et al. *Can J Psychiatry*. 2011;56(6):367-376. Vaughan K, et al. *Aust N Z J Psychiatry*. 2000;34(5):801-808. Muirhead D, et al. *Aust N Z J Psychiatry*. 2006;40(6-7):596-605. Parellada E, et al. *Schizophr Res Treatment*. 2012;2012:318535. Kim S, et al. *Patient Prefer Adherence*. 2012;6:533-545. Emsley R, et al. *Early Interv Psychiatry*. 2013;7(3):247-254. Kirschner M, et al. *Ther Adv Psychopharmacol*. 2013;3(2):89-99.

# First-Episode Schizophrenia (cont'd)

- Treatment of FES is particularly important to improve long-term outcomes, as most clinical and psychosocial deterioration, cognitive decline, and progressive structural changes in brain volume occur within the first 5 years from the disease onset
- Many individuals in the early stages do not accept the illness itself or its severity, and there can even be a false sense of treatment being unnecessary or an unwanted imposition
- Relapse rates in FES during the first year after diagnosis are over 70%
- The cohort study by Tiihonen et al of 2588 patients with FES found that fewer than 50% of patients in the Finnish health care system continued treatment for the first 2 months after their initial hospitalization
- In this study, route of administration affected relapse; LAIs had a 64% lower relapse rate than the equivalent oral medication

Brissos S, et al. *Ther Adv Psychopharmacol*. 2014;4(5):198-219. Agarwal N, et al. *Radiology*. 2010;255(1):23-41. Brugger S, et al. *Biol Psychiatry*. 2011;69(5):495-503. Nickl-Jockschat T, et al. *Eur Arch Psychiatry Clin Neurosci*. 2011;261 Suppl 2:S166-S171. Rocca P, et al. Risperidone Long-Acting Injection in the Treatment of First Episode Schizophrenia. *Current Psychopharmacology*. 2013;2(1):29-36. Kim SW, et al. *Int Clin Psychopharmacol*. 2013;28(2):80-86. Kane JM, et al. *Br J Psychiatry Suppl*. 2009;52:S63-S67. Emsley R, et al. *J Clin Psychiatry*. 2012;73(4):e541-e547. Tiihonen J, et al. *Am J Psychiatry*. 2011;168(6):603-609.

## First-Episode Schizophrenia (cont'd)

- The use of LAIs in FES may be more effective than oral medication in controlling symptoms and relapse
- It is generally accepted that LAIs have a more favorable side effect profile in comparison with their oral counterparts due to lower variation in peak and trough levels

# LAI Antipsychotics

- “Treating with LAI [antipsychotic drugs] as early as possible, from the first episode if possible, can reduce relapse, number and duration of re-hospitalization and cognitive symptoms and can improve the quality of life and prognosis.”

LAI = long-acting injectable.

Viala A, et al. *Schizophr Res Treatment*. 2012;2012:368687.



# Clinical Update: The Latest in Antipsychotic Therapies for Schizophrenia

# LAI Options in the United States

- First-generation antipsychotics (all are in sesame seed oil)
  - Haloperidol decanoate
  - Fluphenazine decanoate
- Second-generation antipsychotics (all IM formulations are water-based)
  - Risperidone- or paliperidone-containing formulations
    - Risperidone microspheres
    - Risperidone subcutaneous
    - Paliperidone palmitate monthly
    - Paliperidone palmitate every 3 months
  - Aripiprazole-containing formulations
    - Aripiprazole monohydrate
    - Aripiprazole lauroxil
  - Olanzapine pamoate

# Summary of Characteristics of Risperidone- and Paliperidone-Containing LAIs

	Risperidone Subcutaneous	Risperidone Microspheres	Paliperidone Palmitate Monthly	Paliperidone Palmitate Every 3 Months
Brand Name (US)	Perseris™	Risperdal Consta®	Invega® Sustenna®	Invega Trinza®
Year Approved	2018	2003	2009	2015
Active Moiety	Risperidone and paliperidone	Risperidone and paliperidone	Paliperidone	Paliperidone
Approved Indications (all adult)	Schizophrenia	Schizophrenia; bipolar I disorder maintenance treatment (monotherapy or adjunctive to lithium or valproate)	Schizophrenia; schizoaffective disorder (monotherapy or adjunctive to mood stabilizers or antidepressants)	Schizophrenia
Dosage Forms/Strengths	Syringe kits: 90 mg, 120 mg	Vial kits: 12.5 mg, 25 mg, 37.5 mg, 50 mg	Injectable suspension: 39 mg, 78 mg, 117 mg, 156 mg, 234 mg	Injectable suspension: 273 mg, 410 mg, 546 mg, 819 mg
Requires Adding Diluent/Liquid	Yes	Yes	No	No
Injection Type	Subcutaneous	Intramuscular	Intramuscular	Intramuscular
Injection Sites	Abdomen	Deltoid or gluteal muscle	Deltoid or gluteal muscle	Deltoid or gluteal muscle
Needle Gauge and Length	18 G and 5/8-inch	20 G and 2-inch, 21 G and 1-inch	22 G and 1.5-inch, 23 G and 1-inch	22 G and 1 or 1.5-inch
Injection Volume	0.6 mL (90 mg), 0.8 mL (120 mg)	Approximately 2 mL	156 mg/mL; range 0.25 mL (39 mg) to 1.5 mL (234 mg)	312 mg/mL; range 0.9 mL (273 mg) to 2.6 mL (819 mg)
Injection Interval	4 weeks	2 weeks	4 weeks	12 weeks

Citrome L. *Clin Schizophr Relat Psychoses*. 2018;12(3):130-141.

# Summary of Characteristics of Risperidone- and Paliperidone-Containing LAIs (cont'd)

	Risperidone Subcutaneous	Risperidone Microspheres	Paliperidone Palmitate Monthly	Paliperidone Palmitate Every 3 Months
Brand Name (US)	Perseris™	Risperdal Consta®	Invega® Sustenna®	Invega Trinza®
Starting Dose	90 or 120 mg	25 mg	234 mg day 1 and 156 mg day 8 (deltoid)	After treatment with 1-month paliperidone palmitate for at least 4 months: 273 mg, 410 mg, 546 mg, 819 mg (3.5 × the last dose of the once monthly formulation)
Maintenance Dose	90 or 120 mg	25 mg, maximum 50 mg/2 weeks	117 mg, range 39–234 mg/4 weeks	Same as above
Half-life	9–11 days	3–6 days	25–49 days	84–95 days (deltoid), 118–139 days (gluteal)
Oral Supplementation?	No	21 days after the initial injection and after any change in dose	No	No
Stored Refrigerated?	Yes	Yes	No	No

# Summary of Characteristics of Aripiprazole-Containing IM LAIs

	Aripiprazole Monohydrate	Aripiprazole Lauroxil
Brand name (US)	Abilify Maintena®	Aristada® (and Aristada Initio®)
Year Approved	2013	2015 (2018)
Other Indications	Bipolar disorder	No
Injection Sites	Deltoid or gluteal	Deltoid (441 mg dose and NCD 675 mg dose*) or gluteal (all doses)
Needle Gauge	21 G, 22 G, or 23 G	20 G or 21 G
Injection Volume	2 mL (400 mg)	1.6 to 3.9 mL
Injection Interval	Every 4 weeks	Every 4 weeks (all doses), every 6 weeks (882 mg), or every 2 months (1064 mg)
Starting Dose	400 mg	441, 662, 882, or 1064 mg
Maintenance Dose	300 or 400 mg (adjust for CYP2D6 or CYP3A4 inhibitors; can't give with CYP3A4 inducers)	441, 662, 882, or 1064 mg (adjust for CYP2D6 or CYP3A4 modulators)
Half-life	29.9 days (300 mg), 46.5 days (400 mg)	53.9–57.2 days; 15–18 days (NCD)
Oral Supplementation	Yes (14 days)	1 day with NCD 675 mg*, otherwise 21 days
Reconstitution	Yes, but dual-chamber syringe available	No
Refrigeration	No	No

\*NCD = a single 30 mg pill and initial injection of nano-crystal formulation (Aristada Initio®) can substitute for 21-day oral aripiprazole supplementation.

Updated from Citrome L. *Expert Rev Clin Pharmacol*. 2016;9(2):169-186. Citrome L. *Expert Rev Neurother*. 2017;17(10):1029-1043.

# Olanzapine Pamoate

- OLAI is a crystalline salt of olanzapine and pamoic acid in water, approved in 2009 for schizophrenia; no other approved indications
- Efficacy was established in 2 double-blind, randomized clinical trials of OLAI for the treatment of **acute** schizophrenia and for the **maintenance** of response
- Therapeutic OLAI dosages are 150 mg every 2 weeks, 210 mg every 2 weeks, 300 mg every 2 weeks or every 4 weeks, and 405 mg every 4 weeks
- Gluteal injection only, 19G needle, 1–2.7 mL volume, reconstitution required, stored at room temperature, no oral supplementation but higher dose at start
- OLAI has essentially the same general tolerability as that of oral olanzapine; however, with the depot there is the additional risk of a **post-injection delirium sedation syndrome** occurring at a rate of 0.07% of injections, requiring a risk-management plan that includes **observing the patient for 3 hours after each injection**

OLAI = olanzapine pamoate.

Citrome L. *Patient Prefer Adherence*. 2009;3:345-355.

# Common Adverse Reactions

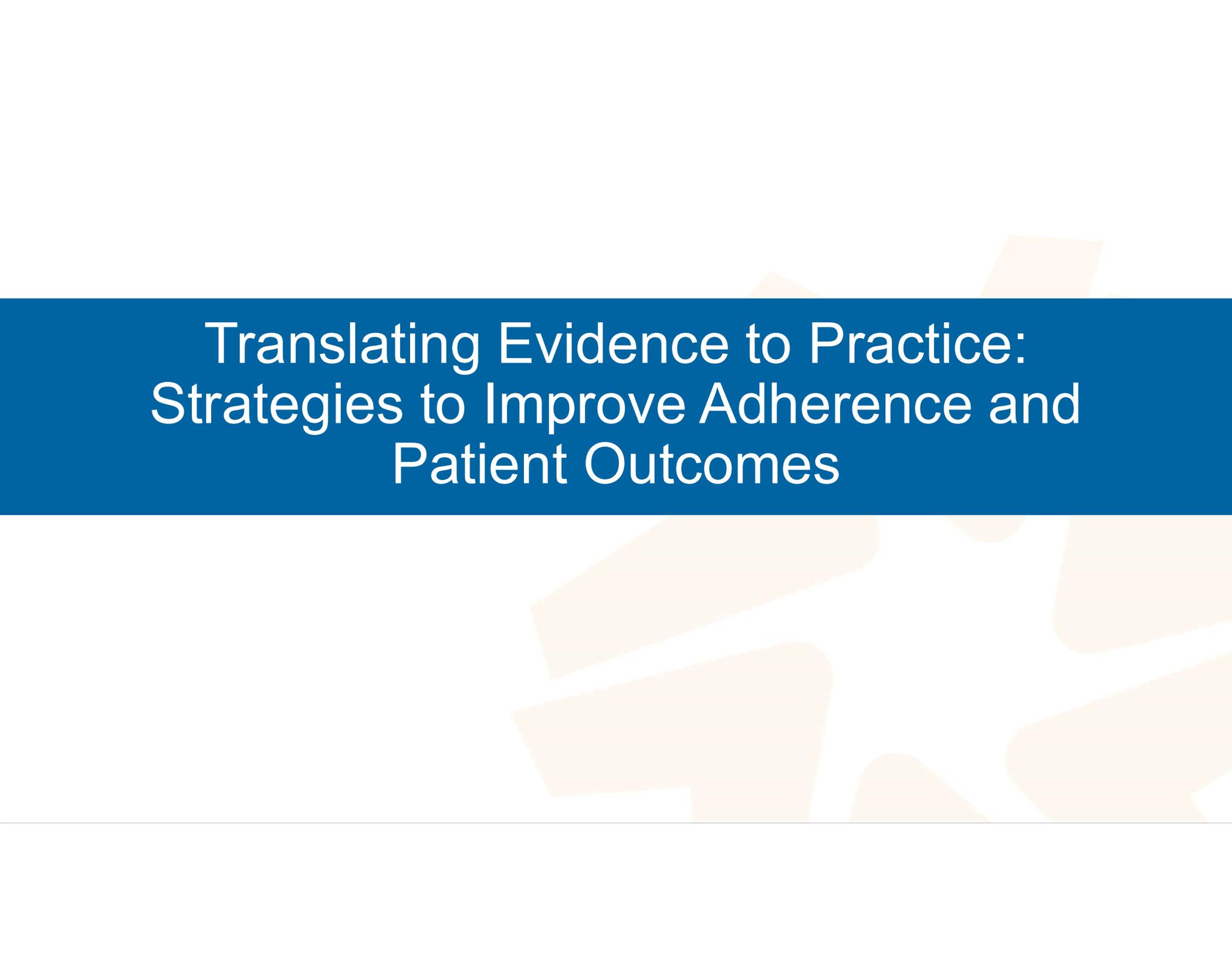
Risperidone Subcutaneous	The most common adverse reactions in clinical trials ( $\geq 5\%$ and greater than twice placebo) were increased weight, sedation/somnolence, and musculoskeletal pain.
Risperidone Microspheres	The most common adverse reactions in clinical trials in patients with schizophrenia ( $\geq 5\%$ ) were headache, parkinsonism, dizziness, akathisia, fatigue, constipation, dyspepsia, sedation, weight increased, pain in extremity, and dry mouth.
Paliperidone Palmitate Monthly	The most common adverse reactions (incidence $\geq 5\%$ and occurring at least twice as often as placebo) were injection site reactions, somnolence/sedation, dizziness, akathisia, and extrapyramidal disorder.
Paliperidone Palmitate Every 3 Months	The most common adverse reactions (incidence $\geq 5\%$ and occurring at least twice as often as placebo) were injection site reaction, weight increased, headache, upper respiratory tract infection, akathisia, and parkinsonism.
Aripiprazole Monohydrate	Most commonly observed adverse reactions (incidence $\geq 5\%$ and at least twice that for placebo) were increased weight, akathisia, injection site pain, and sedation.
Aripiprazole Lauroxil	Most commonly observed adverse reaction (incidence $\geq 5\%$ and at least twice that for placebo) was akathisia.
Aripiprazole Lauroxil Nano-Crystal Formulation	Most commonly observed adverse reaction (incidence $\geq 5\%$ and at least twice that for placebo) was akathisia.
Olanzapine Pamoate	Most common adverse reactions ( $\geq 5\%$ in at least one of the treatment groups and greater than placebo): headache, sedation, weight gain, cough, diarrhea, back pain, nausea, somnolence, dry mouth, nasopharyngitis, increased appetite, and vomiting.

# Late Stage of Clinical Development

- BB-0817 – Phase 3
  - 6-month risperidone polyurethane implant
- Paliperidone palmitate 6-month – Phase 3
- Risperidone *in situ* microparticles – Phase 3
  - Risperidone once-monthly intramuscular formulation; does not require oral supplementation
  - Biodegradation of this risperidone formulation occurs slowly, providing a sustained and controlled release of medication for up to 1 month
- TV-46000 – Phase 3
  - Risperidone extended-release injectable suspension for subcutaneous use as maintenance treatment in adult patients with schizophrenia

NDA = new drug application.

Citrome L. *Expert Rev Neurother.* 2017;17(10):1029-1043. Citrome L. *Clin Schizophr Relat Psychoses.* 2018;12(3):130-141.  
ClinicalTrials.gov Identifier: NCT03503318. ClinicalTrials.gov Identifier: NCT03345342.



# Translating Evidence to Practice: Strategies to Improve Adherence and Patient Outcomes

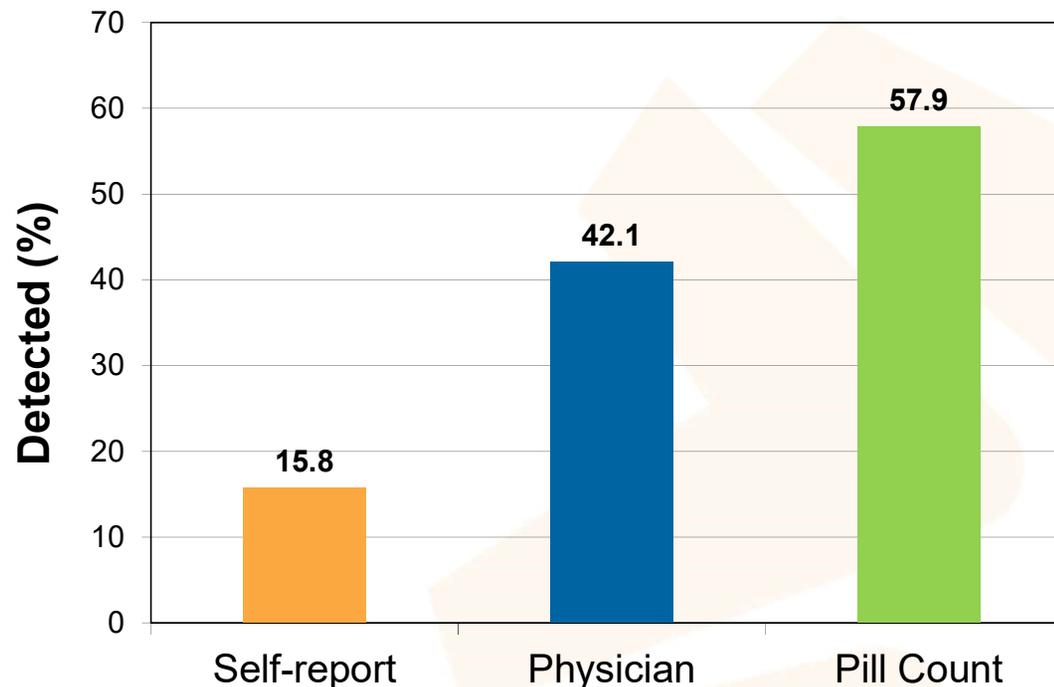
# LAI Antipsychotics: *Advantages*

- No need for daily administration
- Guaranteed administration and transparency of adherence
- If a relapse occurs, it is due to other reasons beyond nonadherence
- Lower relapse rates
- Minimal gastrointestinal absorption problems, circumventing first-pass metabolism
- More consistent bioavailability
- More predictable correlation between dosage and plasma levels
- Reduced peak-trough plasma levels
- Improved patients' and physicians' satisfaction
- Regular contact between the patient and mental health care team
- Improved patient outcomes

## LAI Antipsychotics: *Disadvantages*

- Slow dose titration
- Longer time to achieve steady state levels
- Less flexibility of dose adjustment for good responders
- Delayed disappearance of distressing and/or severe side effects
- Pain at the injection site can occur, and leakage into the subcutaneous tissue and/or the skin may cause irritation and lesions (especially for oily LAI)
- Risperidone LAI needs refrigeration, which may be cumbersome in some latitudes
- Perception of stigma

# Detection of Antipsychotic Nonadherence



Criterion standard (n=19) is MEMS MPR  $\leq$  .80 over 12 weeks, compared with patient self-report, physician impressions, and unannounced in home pill counts. Patient and physician reports correlated with BPRS.

**BPRS = Brief Psychiatric Rating Scale.**

Velligan DI, et al. *Psychiatr Serv.* 2007(9):1187-1192.

# Communication

- Attrition rates after initial treatment with LAIs range from 15% to > 50% due to a variety of factors including differences among agents, patient characteristics, dosing, initiation strategies, and the organization of services that determine continued access to medications
- To help improve the continuation of the LAI, it is important to formulate a good relationship with your patient and discuss the importance of long-term outcomes

# Suggestions for Better Communication

- Many psychiatrists believe that their patients who take oral antipsychotics would, if offered, refuse a recommendation for LAI antipsychotic medications
- Research suggests that the offer of LAI therapy itself is often characterized by hesitation and reluctance and that this may hinder the acceptance rate
- Patients might have accepted the offer of LAI therapy if it had been presented differently
- A common reason for nonacceptance of LAI therapy may be that psychiatrists are ambivalent or unenthusiastic about this option even as they recommend it

# Family Support

- Poor adherence affects families as well as patients
- Family members often help patients to ensure that they are adherent to medications
- Therefore, may have a key role in acting as advocates to help patients to use LAIs when appropriate
- Including families in the discussion can help to ensure that patients have an advocate who is educated about the role of LAIs in schizophrenia treatment
- Family members are often those who suffer the immediate and disturbing consequences of relapse

# Cost

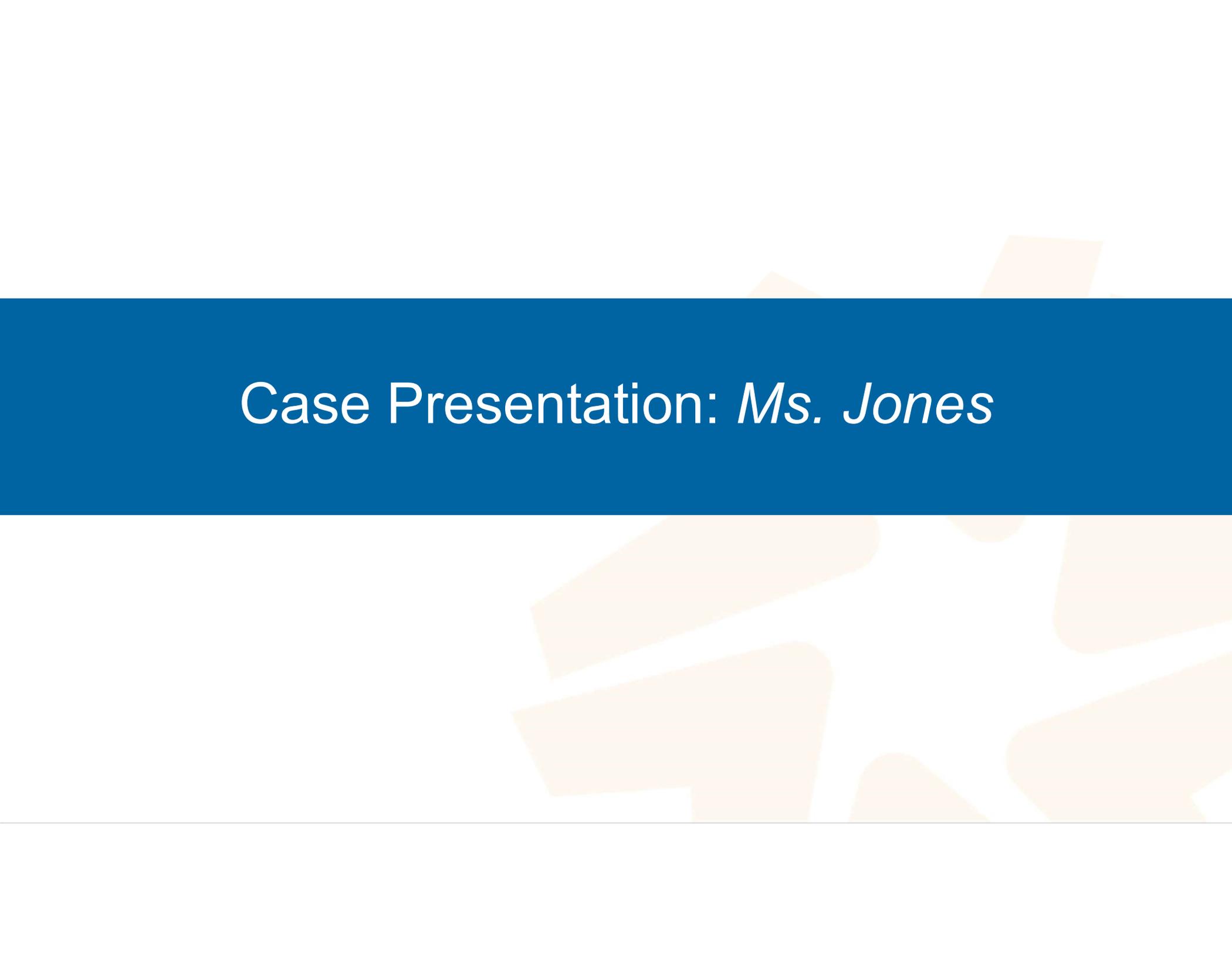
- Multiple studies in Scandinavia and 1 study in the United States show that the overall cost of chronic nonadherence, relapsing, and hospitalizations is significantly higher than that of the use of atypical LAIs

# The Discharge Plan

- Creates a strong therapeutic alliance between patient, caregiver, and staff
- Improves patient quality of life
  - Secures adequate housing
  - Helps with financial planning
  - Refers patients for educational and/or social activity programs
- Involves patient with his or her own care
  - Improves adherence
- Establishes continuity of care from the acute setting to the community setting

# Components of the Discharge Plan

- Living arrangements
  - Housing, food, clothing, transportation (bus passes)
- Social support
  - Involve friends and family in the transition of care
- Financial needs, legal requirements
  - Financial aid, contact numbers for social services
  - Possible legal issues
- Daily activities
  - Employment, cooking, cleaning, budgeting
- Medication plan
  - Prescription information, medication options, contact information at community mental health centers
- Community treatment plan
  - Appointments with case manager, contact numbers, patient's attitude toward adherence, follow-up psychiatric and vocational rehabilitation services, assessment for other nonpsychiatric medical services



# Case Presentation: *Ms. Jones*

# History

- First met her at the state hospital while I was a resident
- 21-year-old female
- No previous psychosis, but had “acted strange” in the past
- High school graduate and was in college
- No previous drug use and rarely drinks more than a few drinks a month

# Initial Presentation

- She was brought to jail after she killed her boyfriend
- She was previously on olanzapine to control some “strange thoughts” that she was having when she was 20 years old
- She would feel that the TV was giving her messages, and the olanzapine kept those thoughts under control
- She was quite stable on the current medications when her boyfriend told her that she was gaining too much weight on her medication and that she didn’t need it any more
- Without telling her doctor she decided to stop her medications

# Course

## **Inpatient Course**

- She spent 3 years in the forensic state hospital
- Received oral medication
- When she would get transitioned to a less restrictive environment she was often caught cheeking her medications
- When asked why, she replied that she was cured of her illness

## **Outpatient Course**

- She was finally transitioned to my forensic community control program where we started her on an LAI

## Outpatient Course (cont'd)

- We began the conversation about LAIs by asking her about her goals
- She told me that she wanted to get a job and go back to school to become a secretary
- We talked about outcomes and that the best results come from consistent and predictable blood levels
- I explained to her that the medications are only as powerful as the lowest trough and have as many side effect as its highest peak and that LAIs have peaks and troughs closest to the average
- It would also cut down the times she would need medications from 365 pills/year to 13 injections/year
- She accepted the injectable and has been stable ever since

## Outpatient Course (cont'd)

- She has been on the LAI since coming into our program
- She completed vocational school and is now working as a secretary for a local company
- She has good conversations with her family and no longer feels paranoid about her environment and no longer gets those messages from the TV
- LAIs gave her a better quality of life, she is no longer psychotic and no longer a danger to self or others. She has successfully integrated into society
- LAIs gave her freedom, from not taking medications on a daily basis and being trusted by the court to live independently