



From Doubt To Dedication: How Long-Acting Injectables Became A Provider Favorite

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Our Featured Speaker



Stephanie Stecker, PMHNP-BC

On Demand Counseling
Boardman, OH

Our Moderator



Taylor A. Ochalek, PhD

Medical Science Liaison
Otsuka Pharmaceutical Development
& Commercialization, Inc.

Our Featured Speaker



Jessica Bettinger, PMHNP-BC

BlueRidge Vista Behavioral Hospital
Cincinnati, OH

Our Moderator



Michael Aldape, PhD

Senior Medical Science Liaison
Otsuka Pharmaceutical Development
& Commercialization, Inc.

Objectives



Review evolution of antipsychotic treatments



Discuss the advantages and disadvantages of long-acting injectable antipsychotics



Explore the potential reasons for low long-acting injectable antipsychotic use



Discuss perceptions of long-acting injectable medications as an option in mental health treatment

Typical And Atypical APs Have Been Studied For >70 Years

Introduction of typical APs 1950s

- Phenothiazines first used in clinical practice¹
- Allowed patient discharge; shift from custodial care²

Additional typical APs and introduction of atypical APs 1960s-1990s

- Additional typical APs introduced³
- First LAI introduced²
- Molecular targets of pharmacological agents expanded to DA, 5-HT, and NE¹
- First atypical AP approved in Europe in 1989⁴ and in the United States in 1990³

Addition of new formulations and treatment modalities 1990s-present

- Additional oral atypical APs introduced³
- First atypical LAI introduced⁵
- Development of novel formulations, including oral disintegrating, sublingual, transdermal APs,⁶ subcutaneous LAI injections,⁷ and digital medicine⁸

AP, antipsychotic; DA, dopamine; 5-HT, serotonin; LAI, long-acting injectable; NE, norepinephrine.

1. Lehmann HE, Ban TA. *Can J Psychiatry*. 1997;42(2):152-162.
2. Johnson DAW. *Br J Psychiatry Suppl*. 2009;52:S7-S12.

3. Tandon R. *J Clin Psychiatry*. 2011;72(suppl 1):4-8.
4. Ayano G, et al. *J Schizophr Res*. 2016;3(2):1027.
5. Patel MX, et al. *Br J Psychiatry Suppl*. 2009;52:S1-S4.
6. Citrome L, et al. *J Clin Psychiatry*. 2019;80(4):18nr12554.

7. Karas A, et al. *P T*. 2019;44(8):460-466.
8. Papola D, et al. *Epidemiol Psychiatr Sci*. 2018;27(3):227-229.

Advantages Of LAIs May Be Overshadowed By Negative Perceptions

Advantages

- Promotion of treatment adherence¹⁻³
- Transparency of adherence²
- Ease of administration⁴
- Reduced peak-trough plasma levels²
- Improved patient outcomes, including functioning and quality of life^{2,5}
- Improved patient and physician satisfaction²
- Lowered relapse rate^{2,6}
- Decreased rehospitalizations⁷



Disadvantages

- Patient concerns regarding potential pain of injection⁸
- Slow dose titration and longer time to reach steady state⁴
- May prolong side effects⁴
- Difficult to adjust small doses⁸
- Limited number of available formulations⁸
- Potential for small amount to leak into subcutaneous tissue⁴
- Association with involuntary hospitalization and related trauma⁹
- Perception that treatment is punitive or forced by clinicians without consideration of patient feelings or rights¹⁰

LAI, long-acting injectable.

1. Patel MX, et al. *Br J Psychiatry Suppl.* 2009;52:S1-S4.
2. Geerts P, et al. *BMC Psychiatry.* 2013;13:58.
3. Lang K, et al. *Psychiatr Serv.* 2010;61(12):1239-1247.

4. Agid O, et al. *Expert Opin Pharmacother.* 2010;11(14):2301-2317.
5. Alavi M, et al. *Schizophr Bull Open.* 2024;5(1):sgae011.
6. Zhornitsky S, Stip E. *Schizophr Res Treatment.* 2012;2012:407171.
7. Lafeuille M-H, et al. *BMC Psychiatry.* 2013;13:221.

8. Jeong H-W, Lee MS. *Clin Psychopharmacol Neurosci.* 2013;11(3):1-6.
9. Iyer S, et al. *Can J Psychiatry.* 2013;58(5 suppl 1):14S-22S.
10. Brissos S, et al. *Ther Adv Psychopharmacol.* 2014;4(5):198-219.

Potential Reasons For Low LAI Use In Serious Mental Illness

LAI utilization rates in the US have been estimated between 13%-28%, while estimates of LAI use from countries such as Austria, Belgium, Sweden, Australia, and New Zealand range from 15%-50%^{1,2}



Challenges in perception³

- Overestimate of adherence
- Bias against injections
- Perception of inappropriate use in early-phase disease



Challenges in education³

- Poor understanding of LAI benefit
- Lack of LAI training
- Inadequate training in shared decision-making
- Communication strategies needed



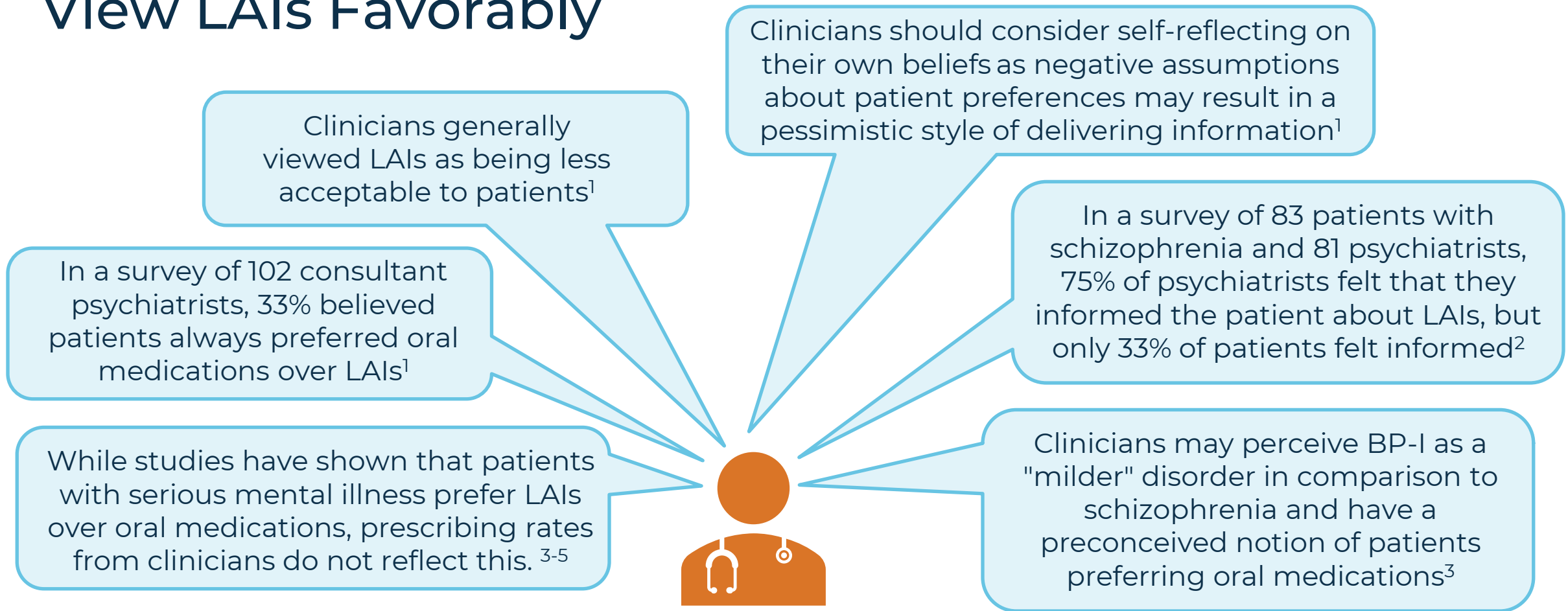
Challenges in clinical use³

- Impact on therapeutic alliance
- Inadequate implementation by in-patient referrals
- Insufficient caregiver involvement
- Mixed results of oral vs LAI trials

LAI, long-acting injectable.

1. Sajatovic M, et al. *Neuropsychiatr Dis Treat*. 2018;14:1475-1492.
2. Agid O, et al. *Can J Psychiatry*. 2022;67(3):226-234.
3. Kane JM, Correll CU. *J Clin Psychiatry*. 2019;80(5):1N18031AH1C.

Clinicians May Generally Believe Patients Do Not View LAIs Favorably



BP-I, bipolar disorder-I; LAI, long-acting injectable.

1. Patel MX, et al. *J Psychopharmacol*. 2010;24(10):1473-1482.
2. Jaeger M, Rossler W. *Psychiatry Res*. 2010;175(1-2):58-62.

3. Vieta E, et al. *Bipolar Disord*. 2024;00: 1-10.

4. Blackwood C, et al. *Patient Prefer Adherence*. 2020;14:1093-1102.
5. Greene M, et al. *J Med Econ*. 2018;21(2):127-134.



Questions





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