LAI s and the Challenge of Medication Non-Adherence

The Care Transitions Network

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National Council for Behavioral Health
Montefiore Medical Center
Northwell Health
New York State Office of Mental Health
Netsmart Technologies
Welcome to the LAI Innovation Community
Thank you for joining!

• We will have a series of webinars and affinity group meetings

• The goals are:
  • To help practices understand LAIs as an important intervention for medication non-adherence and
  • To help practices increase their utilization of LAIs
    • Supports are available for clinical staff
    • Supports are available for administrative staff
What we will need from you

- Your **enthusiasm** for the Innovation Community
- Your **active participation** in the Innovation Community
- Your work within your agency to **insure that your agency staff are aware** of the LAI Innovation Community and that appropriate staff attend the Innovation Community events that support their agency role
- **Developing and implementing plans** specific to your agency for increasing LAI use
Any questions before we get started?
Care Transitions Network

Clinical Goal: Reduce all-cause re-hospitalization rates by 50% for people with serious mental illness

Transformation Goal: Support enrolled organizations in their preparation for transition to value-based payments

Reducing hospitalizations not only demonstrates improved clinical outcomes for patients, but also has important financial implications.
Fee For Service

Incentive for Volume
Service → Payment
Service → Payment
Service → Payment

Metrics to track:
• Unit of care
• Volume

Value-Based Payments

Incentive for Results

Metrics to track:
• Clinical outcomes/best practices
• Population
• Total cost
Cost of Care for a Relapse of Schizophrenia

Estimated annual costs for care of a patient who has a relapse: $33,187

Estimated annual costs for care of a patient who does not have a relapse: $11,771

Avg. cost of a 10 day inpatient stay can range from approx. $10,000 - $17,000 or more (depending on payer)
What strategies can we use to reduce hospitalizations?
We tend to focus on what we don’t yet have in treatments

Maybe we should also focus on using better what we already have

White House Medicine Cabinet during the Madison administration
One available treatment we could use better:

**Long Acting Injectable Antipsychotics (LAIs)**
Long Acting Injectable (LAI) Antipsychotics

• They contain the same active medication as the oral form of the medication
• Each injection provides between 2 weeks to 3 months worth of continuous antipsychotic medication
The Adherence Challenge

Making the case for LAIs
The Clinical Challenge

At least half of people do not follow prescribed treatments

It is difficult and time consuming to assess adherence with oral medications

This leads to poor outcomes
Medication Adherence: Basic Facts

• Difficulty with adhering to chronic medical treatments is a human characteristic
• It isn’t just people with psychosis, it is most people
• Help should be the norm, not just given to select people
Non-adherence in the treatment of chronic disorders

• In developed countries, about 50% of patients with chronic diseases adhere to long-term therapy\(^1\)

• 33–69% of all medication-related hospital admissions in the US are due to poor medication adherence\(^2\)

• One-third of all prescriptions are never filled\(^3\)

• >50% of filled prescriptions are associated with incorrect administration (not taken as prescribed)\(^3\)

U.S. Patients Do Not Take Medications as Prescribed

- 12% of Rx prescribed are not filled
- 12% of Rx filled are not taken
- 29% of Rx taken are not continued

* 22% of U.S. patients take less of the medication than is prescribed

Stopping medication is the most powerful predictor of relapse among people with schizophrenia

- Survival analysis: risk of a first or second relapse when not taking medication ~5 times greater than when taking it

Poor antipsychotic adherence over time in schizophrenia

Analysis of 34,128 VA patients with schizophrenia receiving regular outpatient mental healthcare. Poor antipsychotic adherence defined as annual MPR < .80. 18% had poor antipsychotic adherence in all 4 years.

MPR = medication possession ratio; VA = Veterans Affairs.
Percentage of non-adherent patients identified by different methods

Non-adherence defined on the basis of electronic monitoring. Non-adherent patients took <80% of prescribed medication over a 12-week period.

Clinical implications of LAIs
LAIs eliminate covert non-adherence

Oral Medications
• Not always clear when a patient isn’t adhering to medication
• Detailed adherence assessments are needed at ALL visits

LAIs
• Treatment team knows whether a patient is taking a medication and dosage
• Simplifies adherence assessment

Knowing 100% whether a patient is or is not taking a medication greatly improves making treatment decisions
Implications for Treatment

Oral Medication
• Often unclear if the lack of response is because of non-adherence or actual non-response to the antipsychotic
• Mistaking non-adherence for non-response can lead to frequent medication switches, adding unnecessary additional medications or escalating the prescribed dose

LAIs
• Non-response to an adequate trial of a LAI, is a clear indication that a change to another antipsychotic is needed
Implications for Relapse

**Oral Medication**
- There is often a time lag between the start of medication non-adherence and symptom relapse.
- If a patient relapses, it is often unclear whether it was due to lack of adherence.

**LAIs**
- If a patient relapses while taking a LAI it is clear that it was due to a failure of the medication and not a failure of the patient to take the medication.
  - Eliminates the need to “grill” the patient about adherence.
- Maintenance medication decreases the risk of relapse but does not eliminate the occurrence of relapse.
Evaluating the need for clozapine

• Clozapine should be offered to all patients who need it but
• Clozapine should not be given to patients who would do well with other antipsychotics
• LAIs facilitate determining which patients do not respond to antipsychotics other than clozapine and for whom the benefit/risk ratio for clozapine is favorable
Data supporting that these clinical advantages translate into better patient outcomes
### Strengths and weaknesses of different study types: impact on outcomes

<table>
<thead>
<tr>
<th>Study Type</th>
<th>Strengths</th>
<th>Weaknesses</th>
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<tbody>
<tr>
<td>Randomized controlled trials</td>
<td>• Design reduces expectancy and rater biases</td>
<td>• Not the best way to study interventions with potential adherence benefits</td>
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<td></td>
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<td>• Patients not representative of clinical practice – more adherent, less severe disease</td>
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<td></td>
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<td>• Double-blind studies may increase selection bias</td>
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<tr>
<td>Mirror-image studies</td>
<td>• More reflective of clinical practice</td>
<td>• Expectation bias is inherent in mirror-image studies and may impact the main outcome</td>
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<tr>
<td></td>
<td></td>
<td>• Patients switch from oral antipsychotics to LAIs but not vice versa</td>
</tr>
<tr>
<td>Cohort studies</td>
<td>• Patient selection bias is reduced compared with other study types</td>
<td>• Selection of medication in open studies may introduce bias by improving adherence</td>
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<tr>
<td></td>
<td></td>
<td>• LAI patients are categorically different and more seriously ill than oral antipsychotic patients</td>
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<td>• Confounding factors must be adjusted</td>
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Real-world studies favor use of LAI antipsychotics

As study design shifts toward real-world populations, LAI formulations display significant advantages

Kirson N et al; Poster presented at: 52nd Annual Meeting of New Research Approaches for Mental Health Interventions; May 29-June 1, 2012; Phoenix, AZ.

LAI=long-acting injectable antipsychotic; RCT=randomized controlled trial; RR=risk ratio.

Adjusted Risk Ratio

Randomized Clinical Studies
Prospective Studies
Retrospective Studies

Favors oral
Favors LAI

RR=0.877
RR=0.622
RR=0.558
A recent “real world” study

• Tihonen and colleagues studied 29,823 patients with schizophrenia obtained from comprehensive national databases in Sweden
• Mean duration of follow-up was 5.7 years
• 43.7% had a psychiatric hospitalization during the follow-up
• The risk of rehospitalization was 20% to 30% lower during LAI treatment compared with oral antipsychotic treatment

JAMA Psychiatry 2017;74:686-693
Taking these data and applying them at your facility

• A first step is to help staff at your agency understand how pervasive non-adherence is at your facility
  • It’s easy for staff to believe that patients are often non-adherent but hard to acknowledge how frequently their own patients are non-adherent

• There are different methods to assess adherence. e.g.
  • Surveys
  • Pill counts
  • Electronic monitoring

• If your agency already monitors adherence, what are the results?
An adherence measure available to everyone

• PSYCKES has an adherence measure “Adherence-Antipsychotic (Schiz)”

• It is “the percentage of adults 18-64 years with a diagnosis of schizophrenia who had an antipsychotic medication available to them less than 80 percent of the time (based upon prescriptions filled in the past 12 months, from the first antipsychotic prescription filled to the report date). NOTE: The % reported is the % WITHOUT medication.

• An important limitation: Just because a prescription is filled does not mean that a medication is taken. However, having a medication available to be taken is one requirement that needs to be fulfilled if a medication is going to be taken.
Statewide, the non-adherence rate is 38.1%
Steps to find the rate at your facility

• First, log into PSYCKES
• Next, go to the Indicator Set
• Click on the BH QARR-Improvement Measure
Finding the BH QARR Improvement Measure
Once you click on BH QARR Improvement, you will see the adherence measure.
The non-adherence rate for this facility is 56.76% compared with 50.35% in their region and 38.1% statewide.
As the next de-identified example shows, clicking on the Adherence-Antipsychotic link brings up a list of all the patients at your facility who are non-adherent.
Summary
Who Might Benefit by Adherence Enhancing Interventions such as LAIs?

• Data suggest at least half of all patients would benefit

• For patients who would benefit from an antipsychotic, LAIs are an important adherence enhancement tool
Next steps

• Examine the adherence data from your site
• Start planning about how these data can be used at your site globally and in particular about LAI use
• Spread the word about the LAI Innovation Community to your fellow staff members
• Webinar #2
  • Helping patients and their families make informed decisions about LAIs
  • Target audience: prescribers and therapists
• A team member from Northwell will reach out to participants before the next webinar on 8/17
Northwell Expert Support Team

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Chairman of the Department of Psychiatry
Hofstra Northwell School of Medicine

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## Upcoming Events

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<th>Event</th>
<th>Date/Time</th>
<th>Audience</th>
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<tbody>
<tr>
<td><strong>Webinar #2</strong>: Helping Patients Make Decisions about LAI Treatment</td>
<td>Thursday 8/17 from 12-1pm</td>
<td>Prescribers, other clinicians</td>
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<tr>
<td><strong>Affinity Group #1</strong>: Current Reimbursement for LAIs</td>
<td>Thursday 8/31 from 12-1pm</td>
<td>Administrators</td>
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<tr>
<td><strong>Affinity Group #2</strong>: Setting up a LAI Program</td>
<td>Thursday 9/14 from 12-1pm</td>
<td>Administrators</td>
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<tr>
<td><strong>Affinity Group #3</strong>: Switching Strategies, Dosing and Other Prescribing Issues</td>
<td>Thursday 9/28 from 12-1pm</td>
<td>Prescribers</td>
</tr>
<tr>
<td><strong>Affinity Group #4</strong>: Sustaining a LAI Program</td>
<td>Thursday 10/12 from 12-1pm</td>
<td>Administrators and Clinicians</td>
</tr>
<tr>
<td>Showcase Webinar</td>
<td>Tuesday, 10/31, 12:00–1:00 pm E.T.</td>
<td>Clinical Directors and Clinical Supervisors</td>
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