

Optimizing First Episode Schizophrenia Medication Treatment by Community Clinicians: The RAISE-ETP Model

Delbert Robinson, M.D.

Professor of Psychiatry and Molecular Medicine

Hofstra North Shore-LIJ School of Medicine



Disclosure

- Consultant and grant support: Otsuka

Topics for Tonight

- The scientific background for first episode treatment-
Why we do what we do
- The framework for Navigate medication treatment-
Overall approaches to a challenging patient group
- Treatment strategies-How to treat the initial
psychotic episode and keep people well
- Choosing the proper medications and their dose-
Applying research evidence into what we prescribe
- Assessment and decision tools-Supports for making
the best decisions

Your extensive experience with multi-episode patients will be invaluable for NAVIGATE.

We will focus upon issues specific to the specialized population of early phase patients



A Quick Tour of the Early Phase Treatment Study Literature

Everything is the same but slightly
different

Response of the Initial Episode of Illness

- Response rates for positive symptoms are very high
- Medication doses are substantially lower than with older patients
- Despite low medication doses, side effects are frequent

Response of the Initial Episode

Study	N	Drug	Response rate
Emsley et al 1999	183	Risperidone (6.1mg/day)	63% by 6 weeks
		Haloperidol (5.6mg/day)	56%
Lieberman et al 2003	263	Olanzapine (9.1 mg/day)	55% by 12 weeks
		Haloperidol (4.4 mg/day)	46%
Lieberman et al 2003	160	Clozapine (400 mg/day)	81% by 52 weeks
		Chlorpromazine (600 mg/day)	79%
Schooler et al 2005	555	Risperidone (3.3 mg/day)	75% by 12 weeks
		Haloperidol (2.9 mg/day)	78%
Robinson et al 2006	112	Olanzapine (11.8 mg/day)	44% by 16 weeks
		Risperidone (3.9 mg/day)	54%
Robinson et al 2015	198	Aripiprazole (14.8 mg/day)	63% by 12 weeks
		Risperidone (3.2 mg/day)	57%

Points from the Initial Episode Slide

- All response rates are high, even using response criteria that are more stringent than those usually used in studies of multi-episode patients
- Doses are low
- The relative advantages/disadvantages of antipsychotics differ between first episode and multi-episode patients.
 - For example, clozapine and chlorpromazine have the same response rates if used as initial treatments. (clozapine is still the treatment of choice for first episode patients who remain symptomatic after trials of other antipsychotics)

Side Effects

- The next two slides show that side effects are frequent despite low medication dosing
- The Café slide shows that side effects are very frequent with a variety of antipsychotics
- The weight gain slide shows how susceptible first episode patients are to metabolic side effects

CAFÉ: Common Adverse Events

Adverse Event (%)	Olanzapine N=133	Quetiapine N=134	Risperidone N=133	All Subjects N=400
Daytime drowsiness	53.4	57.5	49.6	53.5
Weight gain	51.1	40.3	41.4	44.3
Increased sleep hours [§]	33.8	41.8	27.1	34.3
Insomnia	38.4	29.1	33.8	33.8
Menstrual irregularities	31.3	23.8	47.1	33.3
Sex drive	27.8	26.1	27.1	27.0
Akinesia	24.1	24.6	27.1	25.3
Dry mouth [†]	21.8	34.3	15.8	24.0
Akathisia	20.3	18.7	22.6	20.5
Sexual arousal	21.8	16.4	18.1	18.8
Sexual orgasm	16.5	15.7	18.8	17.0
Orthostatic faintness	11.3	19.4	12.8	14.5
Constipation	8.3	11.9	13.5	11.3
Sialorrhea [†]	5.3	6.0	13.5	8.3

Weight Gain at 12 weeks

Study	Medication	Weight gain
Schooler 2005	Risperidone	Mean of 10 pounds
Lieberman 2003	Olanzapine	Mean 16 pounds; 61% gained > 7% of baseline weight
Robinson 2006	Olanzapine	15.6% of baseline weight
	Risperidone	9.4% of baseline weight
CAFE	Olanzapine	35 pounds (baseline wt = 172 lbs)
	Quetiapine	18 pounds (baseline wt = 170 lbs)
	Risperidone	20 pounds (baseline wt = 173 lbs)
Robinson 2015	Aripiprazole	11.1 pounds
	Risperidone	13.5 pounds

Although Initial Response Rates Are
High, Relapse, Often Multiple
Relapses, Is the Most Common
Outcome



The Risk for Psychotic Relapse is High

Year*	Relapse rate (%)	95% limit (%)		Patients still at risk at end of year
		Lower	Upper	
1	16.2	8.9	23.4	80
2	53.7	43.4	64.0	39
3	63.1	52.7	73.4	22
4	74.7	64.2	85.2	9
5	81.9	70.6	93.2	4

n=104 first-episode schizophrenia patients

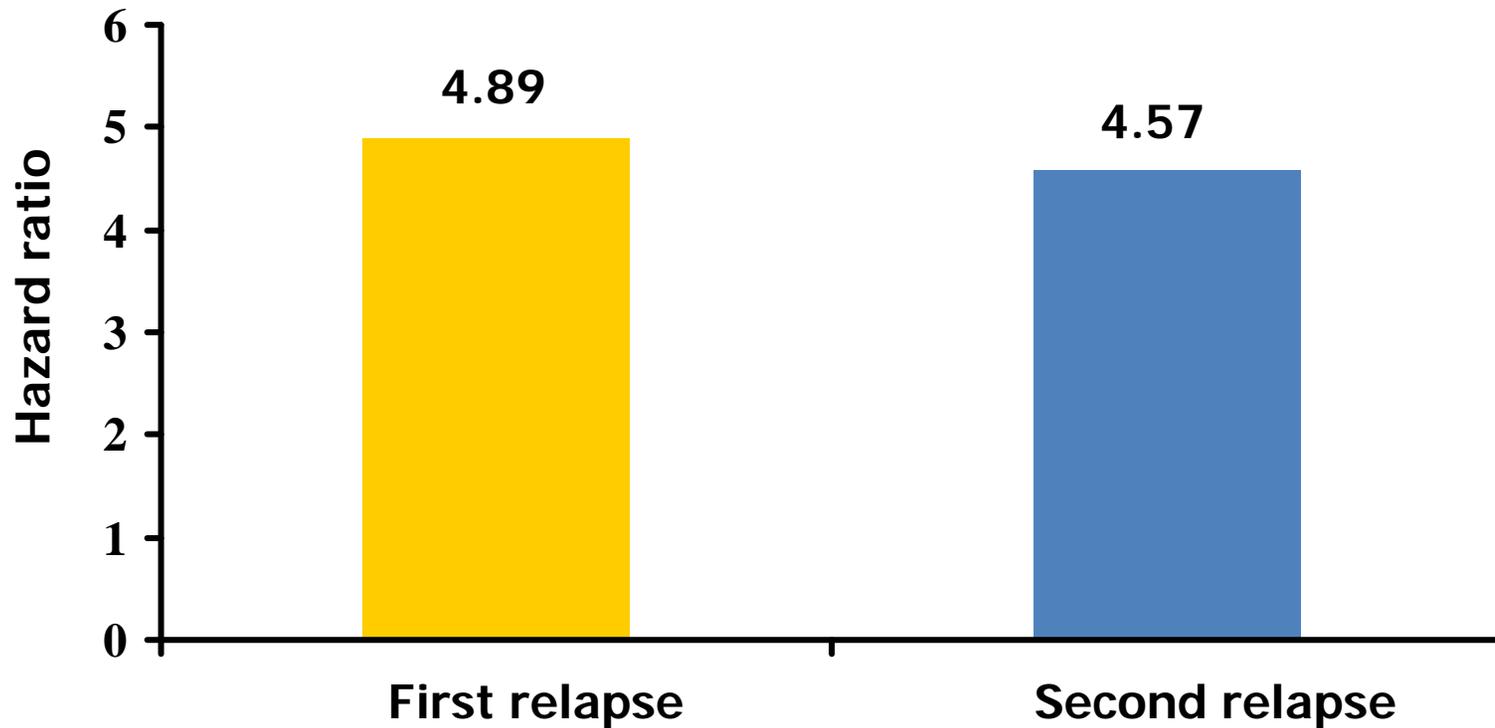
*Year(s) since previous episode

Relapse Is Usually Due to
Medication Non-Adherence



Stopping Medication is the Most Powerful Predictor of Relapse

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



**NAVIGATE Medication Treatment
Is Designed to Help You Meet the
Clinical Challenges of Treating
First Episode Patients**



Framework for NAVIGATE Medication Treatment



Medication Treatment Occurs in the Context of a Treatment Team

- Individual Therapy (IRT)
- Supported Education and Employment
- Family Psychoeducation

You Are Not Alone!

- The team approach spreads the effort to care for the patients and their families
 - First episode patients and their families often have a lot of issues
 - With the team approach, no individual clinician has to deal with all the problems
- Team members bolster each others' efforts
 - E.g. The IRT or education clinician can help with maintaining patient engagement

NAVIGATE Was Designed for Community Facilities

- It was funded by the NIMH
- NIMH specifically wanted a treatment program that could be done in the community
- As part of the RAISE-ETP project, it has been successfully implemented at clinics across the country
- Your facility can do it too!



Shared Decision Making Is the Basic Model

- Shared decision making means that you and your patients make medication choices within the evidence base.
 - If a group of medications have equivalent effectiveness evidence, choice within that group is based upon patient preferences (e.g. side effect differences)
 - Choice is constrained among medications with equivalent evidence
 - Choosing medications without evidence does not

Shared Decision Making Is the Basic Model

- Choice is constrained among medications with equivalent evidence
 - Choosing medications without evidence lowers the chance that medications will be effective and tolerable
- If patients refuse evidence-based treatment, we continue to work with them with the hope that with more education they will accept evidence based treatment
 - For example, if subjects refuse antipsychotic treatment, we continue to follow them (as long as medically safe) and do education with them and their families

An Example of NAVIGATE Shared Decision Making

- We know that dosing is a critical issue with FE patients and also side effect profiles
- First line NAVIGATE antipsychotics are 1) antipsychotics with FE or adolescent dosing data and 2) favorable side effect profiles.
- You and your patient choose among the NAVIGATE first line antipsychotics: aripiprazole, quetiapine, risperidone and ziprasidone



NAVIGATE Prescriber Visit Flow

- Patients have vital signs done
- Patients complete self-report of symptoms, side effects, adherence, substance use and preferences about changing or keeping their current medications
- Prescriber assesses symptoms and side effects guided by patient self-report
- Patient and prescriber review evidence based treatment possibilities and make treatment decisions



NAVIGATE Treatment Strategies



Initial Assessment Logistics

- Around 80% of patients with first episode schizophrenia present to local community centers after an inpatient admission.
 - For these patients, you will often know from the discharge summary that they had some psychotic symptoms
 - But given the current time pressures on inpatient treatment you often will only receive very limited information about the range and extent of symptoms.

Initial Assessment Logistics

- The remaining 20% of patients with first episode schizophrenia present to local community centers directly.
 - For these patients, you maybe doing an evaluation without any background materials.
 - The first step is to always assess carefully for psychotic symptoms during intake evaluations.

Some Early Signs That You Maybe Evaluating Someone with a Psychosis

- Decreased performance at school or work
- Social isolation
- Odd behaviors or beliefs that the patient is not able to explain adequately
- Hostility or suspiciousness that seems out of proportion
- Odd speech
- Depressed or anxious mood that do not fit usual patterns

Assessment

How to Get Information in the Absence of Records

- Often the patient is the only source of vital information. The usual strategy is to find some aspect of the patient's illness that they agree is a problem and use that as an entry point to explore the extent of symptoms. Each patient varies in what they see as a problem but it usually consists of either:
 - A symptom that the patient experiences as negative (usually this is anxiety or worry, sometimes depression).
 - Problems with role function.
 - Problems with social functioning.

Assessment

Long Duration of Untreated Symptoms

- Subjects usually have been psychotic for 1-2 years before being brought into treatment
 - Both patients and families are often in denial about the extent of the patient's symptoms
 - One frequently gets only a limited history of symptoms and the extent of symptoms at the first interview. Families and patients often will need time to fully disclose the extent of symptoms. Be prepared to learn more over the first few months of treatment.

Assessment

Long Duration of Untreated Symptoms

- Dating the onset of symptoms can be especially difficult and the known onset usually changes over the first months of treatment.
- Obtaining the time of first social and of first role (education or work) dysfunction often gives good indications of the onset of symptoms

Assessment

Severity of Symptoms

- When the patient finally enters treatment, their psychotic symptoms can be very severe
 - Be prepared for the assessment of more extreme versions of psychosis, such as bizarre delusions and catatonic features

Assessment Substance Abuse

- 40%-50% of first episode schizophrenia-spectrum patients met criteria for a past or current DSM-defined substance abuse or dependence disorder (not counting nicotine dependence).
- This is overwhelmingly alcohol and/or marijuana use disorders.

Assessment Substance Abuse

- How to tell substance induced psychosis from schizophrenia with substance use?
 - Clinicians sometimes automatically assume that young patients who present with psychosis and substance use have a drug induced psychosis.
 - An important clinical point is to get a chronology of the psychotic symptoms and of the substance use.
 - Look for periods of psychosis in the absence of substance use

Assessment

Prior Treatment

- Many patients have had brief prior treatment for psychosis that ended when the patient stopped treatment.
- Always inquire about medication taken versus medication prescribed during prior treatment - they often/usually are different.
- Inquire about the use of over-the-counter or “alternative” medicines

Issues Specific to Longitudinal Treatment

Treatment

Patient and Family Support

- Having a son or daughter enter treatment for a psychotic episode is a family crisis.
- Most patients and their families have limited experience with the mental health treatment system.
- Families and patients usually need support during the process of entering treatment.
 - The IRT and family education components of NAVIGATE are important resources for this.

Treatment

Patient and Family Support

- Patients and families often have an unstable view of the illness even after several months of treatment.
 - It is important to provide patients and families with a clear, consistent description of the illness and its treatment.
 - Reluctance to discuss psychosis or diagnosis prevents patients and their families from having a clear understanding of illness management.

Treatment

Treatment Goals

- First episode patients frequently have a robust positive symptom response to antipsychotic treatment
- Treatment goals should be high for a young person first starting treatment.
- The goal is resolution of symptoms as evidenced by a rating of mild or better on the core psychosis items of the NAVIGATE psychopathology rating scale.

Suicide Assessment and Prevention

- The first years of schizophrenia mark the time of greatest risk for suicide attempts.
- Make sure to look for signs of hopelessness, resignation, or ruminations about falling behind peers or own / family expectations. Make sure to inquire about suicidal thinking or behaviors. Again, family members can be a good source of information.

Treatment

The Drive to Non-adherence

- Families and patients usually have no personal experience of the negative consequences of treatment discontinuation.
- Young people have difficulty accepting that they have a chronic medical illness. Families also often wish to not consider that the patient has a chronic illness.
 - Return to good functioning is often interpreted as meaning that treatment is not needed anymore.
 - Substance use and/or stress are frequently cited by patients and families as the sole cause of the psychotic symptoms and not as factors that exacerbated an underlying disorder.

Prepare for Non-adherence

- Strategies for managing non-adherence
 - Clear communication with patients and their families about the need for maintenance treatment based upon consistent findings from research studies spanning several decades
 - Engagement of the entire family in maintaining adherence. Families often stop encouraging adherence after the acute crisis of an inpatient hospitalization subsides.
 - Assessment of adherence at all contacts

Prepare for Non-adherence

- Strategies for managing non-adherence
 - Consider having family members supervise medication intake, but also be mindful of the potential power struggles that can ensue or exacerbate
 - Consider use of long-acting formulations of antipsychotics before non-adherence begins. Use of long-acting formulations prevents covert non-adherence—prescribers and families are always aware if a patient being treated with long-acting medications is adherent or non-adherent.

Treatment

Maintaining Engagement

- Despite presentation of the evidence base for the effectiveness of maintenance treatment and the risks to function through repeated psychotic relapses, many first episode patients will decide to stop treatment, sometimes repeatedly and often without your knowledge.
 - For most patients, it is important to engage the family in this decision
 - Many families will encourage patients to continue treatment
 - If patients decide to stop treatment, it is often important that families know that the patient is entering a period of increased relapse risk

Treatment

Maintaining Engagement

- Maintaining engagement is crucial for early detection and management of relapse
 - Patients will frequently agree to longitudinal follow-up after medication discontinuation
 - Participation in other modules of NAVIGATE such as IRT or supported employment/education provide another context for patients to maintain contact with the facility and with health care providers.

NAVIGATE Medication Selection and Dosing



NAVIGATE Medication Selection and Prescription Summary #1

- Use the patient self ratings and your ratings to get all the information needed to make the best decisions within a shared decision making process
- Aim for symptom remission, not just improvement
- First line agents are: aripiprazole, quetiapine, risperidone, ziprasidone
- Choose one and give for 2 to 4 months, either as an oral or a long acting formulation



NAVIGATE Medication Selection and Prescription Summary #2

- Use doses around half of what is used with multi-episode schizophrenia
- Monitor side effects closely—you will see high rates of side effects
- If two different antipsychotics do not work, use clozapine
- Prepare for non-adherence

Now, the Details



Treatment

Length of a Trial

- First episode patients may respond to long mono-therapy trials of antipsychotics
- The Preventing Morbidity study treated first episode patients with olanzapine or risperidone for 16 weeks. Cumulative response rates increased steadily every study week until the end of trial. The cumulative response rate was 40% by week 8; 54% by week 12 and 65% by week 16.

Treatment

Length of a Trial

- First episode patients may respond to long mono-therapy trials of antipsychotics
- The Preventing Morbidity study treated first episode patients with olanzapine or risperidone for 16 weeks. Cumulative response rates increased steadily every study week until the end of trial. The cumulative response rate was 40% by week 8; 54% by week 12 and 65% by week 16.

Treatment

Length of a Trial

- The recommended NAVIGATE treatment trial duration is a minimum of 8 weeks to establish efficacy.
- Clinicians and patients may consider longer trials based upon the finding that up to 25% of first episode patients respond to more lengthy treatment.
- No data are available for treatment longer than 16 weeks with response defined as in COMPASS, so ineffective trials lasting longer than 16 weeks are not recommended.

Treatment Length of a Trial

- Lack of response after a few weeks of treatment has been demonstrated to predict lack of response to longer trials with multi-episode patients. This may not hold with first episode patients.
- In the Preventing Morbidity study, approximately 40% of subjects who had less than a 20% reduction in symptoms by week 4, meet stringent response criteria by week 16 of treatment.

Treatment Dosing

- Antipsychotics doses that are at 50-60% of what is used in more chronic patients are often sufficient to obtain a treatment response. Higher doses often are associated with a greater side effect burden.
- The dosing for quetiapine may differ from this pattern as daily doses of around 500 mg were reported in two first episode trials. The dosing for ziprasidone may also differ from this pattern as daily doses of around 110 mg were reported in one first episode trial.

Treatment

Depressive Symptoms

- Depressive symptoms very commonly co-occur with a first episode of schizophrenia.
- Depressive symptoms may be a core part of the acute illness. These symptoms usually resolve with antipsychotic monotherapy as the psychosis remits (see Koreen et al; Am J Psychiatry 1993; 150:1643-1648).

Treatment

Depressive Symptoms

- Guidelines for when to initiate adjunctive antidepressant treatment with first episode patients are not available.
- Since most depressive symptoms will remit with antipsychotic treatment alone, prescription of adjunctive antidepressants for all first episode patients with depressive symptoms is not warranted.
- Given what is known about antipsychotic treatment with first episode patients (effective dose ranges are low in comparison with those for multi-episode patients; marked side effect sensitivity), consideration of using slow titration and low to moderate antidepressant doses is reasonable in the absence of data.

Sequence of Medications



General Principles

- Preference given to medications with data available
- Consider the use of long-acting formulations of antipsychotics for maintenance treatment for all subjects

Available Medications With Data From Contemporary Studies With First Episode Or Adolescent Populations

- Aripiprazole, chlorpromazine, clozapine, haloperidol, olanzapine, quetiapine, risperidone, ziprasidone
- Data are available for oral and long-acting formulations of risperidone.

Medications to Try First

- Chlorpromazine, clozapine, haloperidol and olanzapine are considered second line agents due to side effects and, for haloperidol, questions about maintenance efficacy
- First line agents consist of the remaining medications with relevant data: aripiprazole, quetiapine, risperidone, ziprasidone

Choice of Second Medication

- Before changing medications at any stage due to medication tolerability, first try dose reduction strategies, if clinically possible.
- If this is ineffective, or not clinically possible, specific side effect strategies are provided.

Side Effect Management Strategies

- Problems with increased weight/metabolic side effects: Healthy Life Styles program
- Problems with Parkinsonism: Dose reduction, if possible, followed by addition of an anticholinergic medication as needed
- Problems with akathisia: Decrease dose or speed of titration, if possible, followed by addition of a benzodiazepine, beta blocker or antihistamine as needed.
- Problems with sedation/somnolence: Dose reduction, if possible, or change in timing of dosing. Depending upon severity and other clinical factors, waiting for tolerance to develop may be considered.

Switching Medications

- **Progression to second medication due to problems with increased weight/metabolic side effects:** Consider switching to aripiprazole or ziprasidone
- **Progression to second medication due to problems with Parkinsonism:** Consider switching to aripiprazole, quetiapine, or ziprasidone
- **Progression to second medication due to problems with akathisia:** Consider switching to quetiapine, risperidone or ziprasidone.

Switching Medications

- **Progression to second medication due to problems with adherence:** Consider switching to long acting injectable formulations.
- Note: long acting formulations are *not* reserved for management of non-adherence and should be considered during initial treatment for a variety of reasons.

Switching Medications Hyperprolactinemia

- **Progression to second medication due to problems related to hyperprolactinemia:**
Consider switching to aripiprazole, quetiapine, or ziprasidone (Note: for patients doing well on first generation agents or risperidone, also consider addition of aripiprazole to their ongoing regime).

Switching Medications for Persistent Positive Symptoms

- Data specific for the treatment of first episode patients with persistent positive symptoms are not available.
- Clinical factors to consider include:
 - the length of treatment with the initial medication as data suggest that some first episode patients respond after lengthy trials of a single agent
 - the possibility of covert nonadherence as a factor in persistence of symptoms.

Switching Medications for Persistent Positive Symptoms

- Data from studies of multi-episode patients with treatment resistance suggest that clozapine remains the agent of choice, but that risperidone and olanzapine may have efficacy for this patient group.
 - If risperidone was not tried as the initial medication, consider a trial of risperidone.
 - If risperidone was the initial medication tried, the potential benefits of use of olanzapine as the second medication versus its long-term metabolic side effects should be evaluated.

Choice of Subsequent Medication, if required

- Switched due to problems with medication tolerability: The first choice in most instances will be either aripiprazole, chlorpromazine, haloperidol, olanzapine, quetiapine, risperidone, or ziprasidone as there are side effect data specific to the first episode patient population to guide medication selection.
- Clozapine may have a role for management of tardive dyskinesia in some cases.
- If none of these medications are appropriate for the side effect the patient is experiencing, other antipsychotics should be tried.

Choice of Subsequent Medication, if required

- Clozapine can be considered for patients who have persistent positive symptoms after trials of two antipsychotics and should be the treatment, unless contraindicated or refused, for patients with persistent positive symptoms after trials of three antipsychotics.
 - Clozapine should be considered at earlier treatment stages for patients with persistent suicidal ideation.
- There are no data available specific for first episode patients with persistent positive symptoms after an adequate trial of clozapine. Clinicians should base their decisions for these patients on data from studies of patients with treatment-resistant schizophrenia.

NAVIGATE Medication Treatment Forms

**ALL ARE FREE AND AVAILABLE FOR
DOWNLOAD AT
[WWW.RAISEETP.ORG/STUDYMANUALS
/PSYCHOPHARMACOLOGY%20MANUAL
.PDF](http://WWW.RAISEETP.ORG/STUDYMANUALS/PSYCHOPHARMACOLOGY%20MANUAL.PDF)**



Example #5 Patient Self-Rating Form

- **23** Any decrease in your interest in sex?
- _____ Yes, my interest in sex is low
- _____ No, my interest in sex is fine
- **24** Any other problems with sex?
- _____ Yes, I have problems with sex
- _____ No, I do not have any problems with sex

Patient Self-Rating Form

Other questions cover adherence, attitudes towards medications and substance use

Example #6 Patient Self-Rating Form

- **38** Between now and your next visit, do you think we should keep your medication the same or consider changing the medications?
- _____ Consider changing
- _____ Stay the Same

Clinician Rating Form

- **1. Depressed Mood**
- Sadness, grief, or discouragement (do not rate emotional indifference or empty mood here - only mood which is associated with a painful, sorrowful feeling).

Clinician Rating Form

- **Patient endorsed depressed mood on self-report:**
- *You said on the questionnaire that you have been feeling depressed, sad, or down.*
- *Tell me about what you have been experiencing. How often did it happen? Does it come and go? How long does it last? How bad is the feeling? (Can you stand it?)*

Clinician Rating Form

- **Patient did not endorse depressed mood on self-report:**
- *You said on the questionnaire that you have not had any problems recently feeling depressed, sad, or down.*
- *Any problems not being interested in things you usually enjoy? (If yes, probe for the presence of depressed mood).*

Clinician Rating Form

- 0 = **Not reported**
- 1 = **Very Mild:** occasionally feels sad or “down”; of questionable clinical significance
- 2 = **Mild:** occasionally feels moderately depressed or often feels sad or “down”
- 3 = **Moderate:** occasionally feels very depressed or often feels moderately depressed

Clinician Rating Form

- 4 = **Moderately Severe:** often feels very depressed
- 5 = **Severe:** feels very depressed most of the time
- 6 = **Very Severe:** constant extremely painful feelings of depression
- Unable to assess (e.g. subject uncooperative or incoherent)

Does Navigate Treatment Make a Difference?

- The RAISE-ETP study compared Navigate with Clinician Choice treatment with 404 first episode patients over 2 years.
- Patients who got Clinician Choice treatment improved but
- Navigate treated patients had more improvement in overall symptoms, depression and quality of life than patients given Clinician Choice treatment



Summary

- Optimal medication sequences and dosing differ between first episode and multi-episode patients
- For first episode patients, use low doses and monitor closely for side effects
- Aim for symptom remission
- Medications are best given within the context of a supportive treatment team to maximize outcome



Thank you

- for being willing to learn about something that maybe new to you and
- for your attention to this presentation