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MGH Psychosis Clinical and Research Program: Stage-based Care for Schizophrenia

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Disclosures



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My spouse and I have the following relevant financial relationship
with a commercial interest to disclose:

Mirah (investment)

Artisan (investment)



“Mental health is not a destination but a process.

It’s about how you drive, not where you are going.”

- Noam Shpancer PhD





The “How”: Stage-Based Treatment

- Treatment tailored to the stage of illness
- Adds precision
 - Useful with conditions that persist or recur
 - Lead to worsening impairment
- Framework for early intervention & a preemptive approach
- Goal: reduce progression to later stages

McGorry PD. Psychiatric Times 2020;37(6):14-5.



Stage-Based Treatment

- Encourages diagnosis at the earliest possible time
 - Followed by stage-specific interventions
- Used with cancer and cardiovascular disease
- Requires the presence of 3 elements:
 - Identifiable stages
 - Each stage has similar symptoms
 - Treatment can prevent or delay progression

McGorry PD. Psychiatric Times 2020;37(6):14-5.

Stage-Based Treatment and Psychosis



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- Great utility in psychotic disorders
- Psychosis progresses in stages
- Each stage has similar symptoms
- Treatment can delay or prevent progression

Stage 1

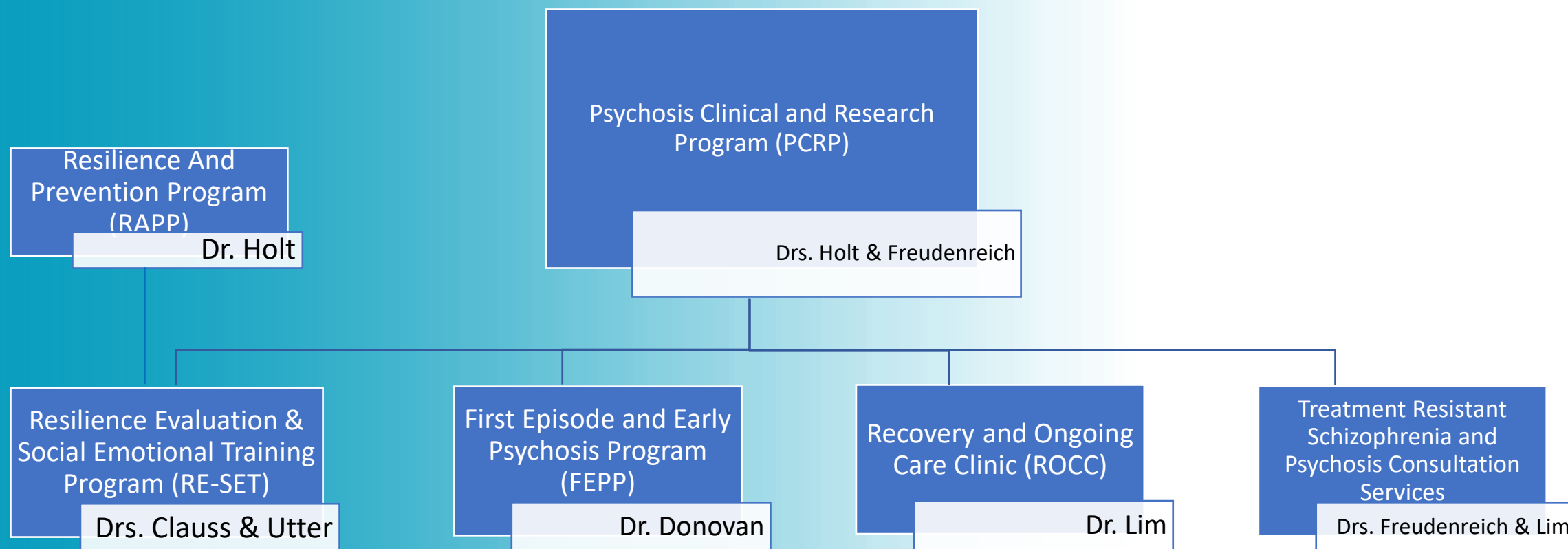
- Clinical High Risk

Stage 2

- First Episode Psychosis

Stage 3

- Persistent Psychosis
Treatment Resistant Schizophrenia





Stage 1

- Clinical High Risk

Stage 2

- First Episode Psychosis

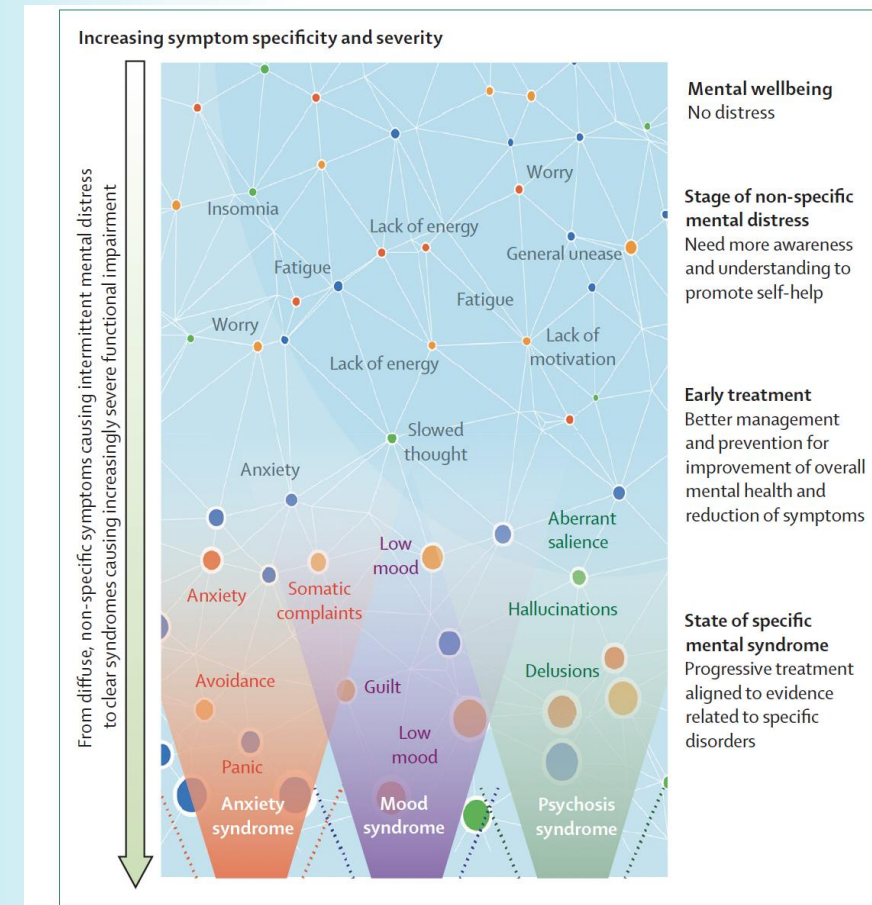
Stage 3

- Persistent Psychosis

What is “Clinical High Risk” (CHR)?

- Prodromal period preceding psychosis
- Non-specific, transient symptoms
- As the condition progresses, symptoms allow for a diagnosis
- 20-30% of patients ultimately develop psychosis^{1,2}

1. Fusar-Poli P et al. Arch Gen Psychiatry 2012;69(3):220-9.
2. Fusar-Poli P et al. JAMA Psychiatry 2020;77(7):755-65.



Patel et al. Lancet 2018:1553.1598.



CHR Principles of Care

- High level of suspicion, low threshold for evaluation
- Offer needs-based psychosocial treatments
 - CBT¹
 - Family-Focused Therapy²
 - Resilience Training³
- Alleviate stress, strengthen coping
- Treat comorbid disorders
- Avoid antipsychotic medication unless clearly indicated

1. van der Gaag M et al. Schizophr Bull 2012;38(6):1180-8. 2. Miklowitz DJ et al. J Am Acad Child Adolesc Psychiatry 2014;53(8):848-58. 3. Burke AS et al. Front Psychiatry 2020;10:1030.



Resilience Evaluation & Social Emotional Training (RE-SET) Program

Goals:

- Provide evidenced-based interventions, focusing on resilience enhancement to:
 - Improve symptomatic and behavioral functioning
 - Delay or prevent the onset of illness
- Identify predictors of clinical outcomes
 - Develop tailored interventions for specific risk profiles



RE-SET Evaluation Process

- On-line referral system
 - Easily accessible
 - Can be initiated by anyone
 - Low threshold for referral
- Comprehensive evaluation
 - Diagnostic interview
 - Structured Interview for Psychosis-Risk Syndromes (SIPS)
- Feedback session
 - Individually-tailored treatment recommendations
- 21 patients evaluated this year



RE-SET Treatment

- Transdiagnostic treatment
- Individual and group training in evidence-based skills
 - Increase the ability to handle stress (emotional resilience)
- Family support and education
- Medication:
 - Depression, mood instability, anxiety or difficulties in thinking
- Care coordination
- Neuropsychological testing
- Referrals to more specialized treatment



RE-SET Patient Story

- Jayla is a 12-year-old female
- In 2020, developed anxiety
- Trouble returning to in-person school
- Difficulty completing school assignments
- Stopped spending time with friends & participating in clubs
- Appeared confused, didn't make sense





RE-SET Patient Story

- Psychiatrically hospitalized
 - Started antidepressant & low-dose antipsychotic medication
- Treatment with RE-SET
- 1 year later
 - No depression, anxiety or psychotic symptoms





Stage 1

- Clinical High Risk

Stage 2

- First Episode Psychosis

Stage 3

- Persistent Psychosis



First Episode Psychosis

Principles of Care

- Intervene early: Minimize duration of untreated psychosis (DUP)
 - There is “collateral damage” from being ill:
 - Neurotoxicity from psychosis
 - Sociotoxicity- dropping out of school/work, losing friends & family
- Early intervention is associated with:
 - Improved clinical and functional outcomes^{1,2}
 - Reduced risk of relapse/re-hospitalization^{1,2}
 - Improved quality of life²

1. Alvarez-Jimenez M et al. Schizophr Bull 2011;37(3):619-30. 2. Correll CU et al, JAMA Psychiatry 2018;75(6):555-65.



First Episode Psychosis Model of Care

- Coordinated Specialty Care (CSC)
- Core components:
 - Specialized psychopharmacology
 - Individual therapy: Individual Resiliency Training (IRT)
 - Family Psychoeducation
 - Supported Employment and Education (SEE)
- Additional treatments at FEPP:
 - Group therapy
 - McFarlane Multi-Family Group therapy

Kane JM et al. Am J Psychiatry 2016;173(4):362-72.



Coordinated Specialty Care

- Specialized Psychopharmacology
 - Shared decision-making
 - Lowest possible effective dose
 - Monitor physical health and side effects
- Individual Resiliency Training (IRT)
 - Focuses on building strengths and resiliency
 - Patients learn specific skills to manage their illness
 - Modules address different topics
 - Tailored to the individual patient



Coordinated Specialty Care (cont.)

- Family Psychoeducation
 - Education about psychosis
 - Reduce stress and tension, foster a recovery-oriented atmosphere
 - Strategies for improving communication and problem solving
- Supported Employment and Education (SEE)
 - Focuses on the return to school or work
 - Identify individual strengths, build on them
 - Goals are determined by patient preferences
 - Numerous available supports



Additional FEPP treatments

- McFarlane Multi-Family Group
 - Evidence-based treatment integrating psychoeducation & behavioral family therapy
 - Decrease relapse & rehospitalization rates, improve family well-being
- Recovery in Practice Group
 - Promotes the development of social connectedness, social skills and daily living skills through real-world practice
- Young Adult Group
 - Promotes social connections in a supportive group format

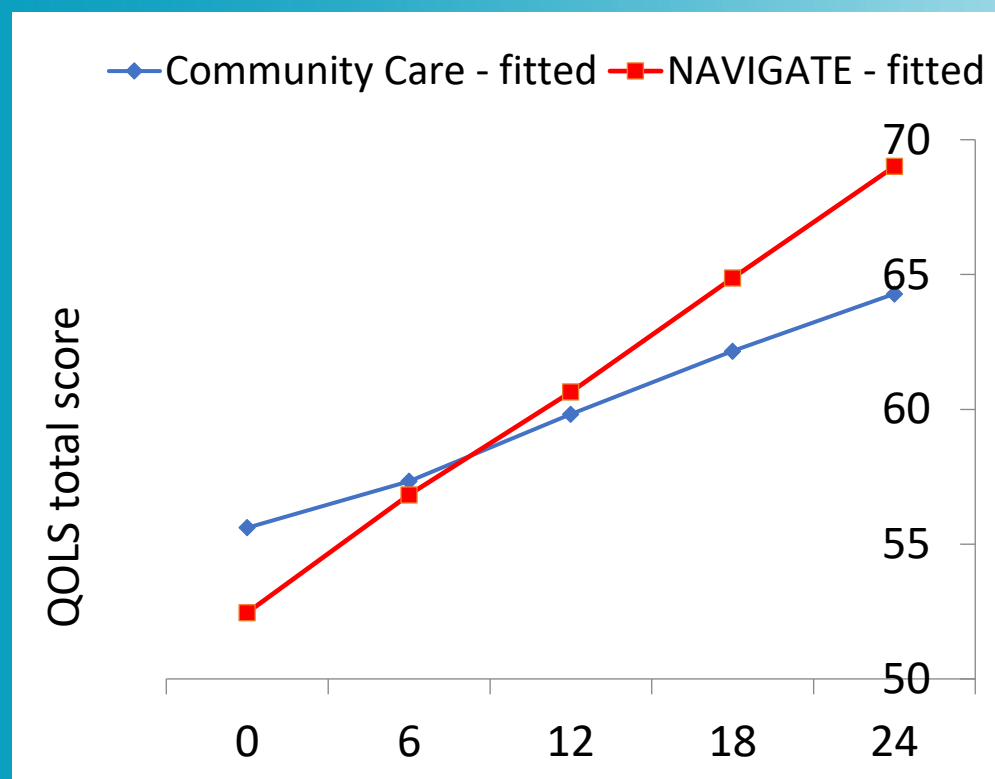
McFarlane WR et al. J Marital Fam Ther 2003;29(2):223-45.

What is the impact of CSC?

Better Psychosocial Functioning

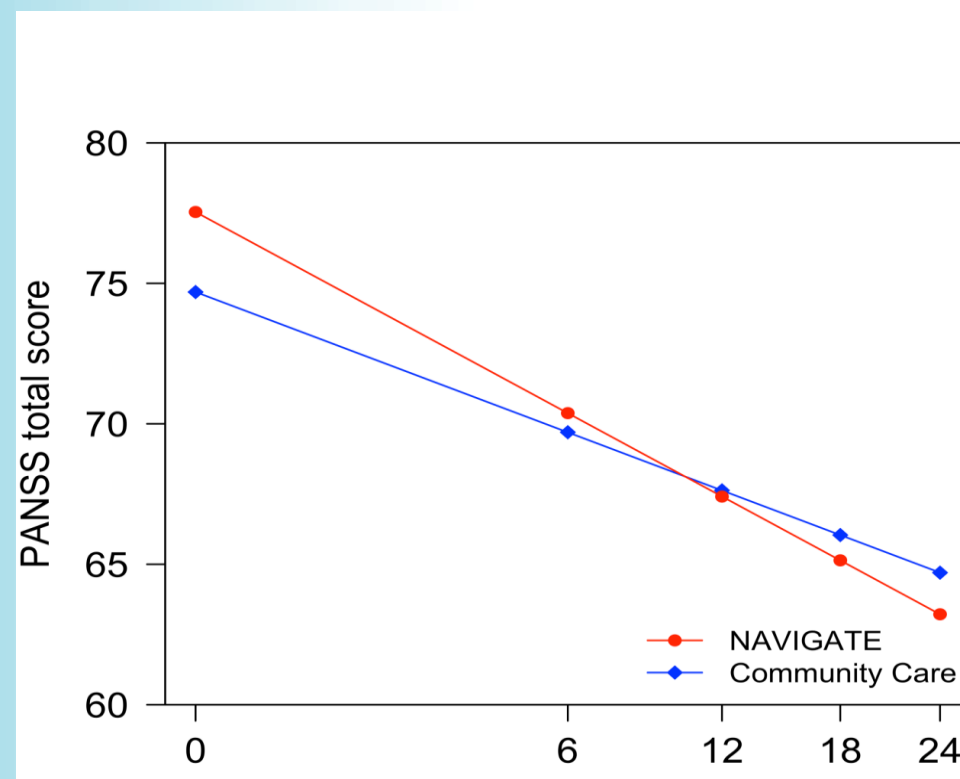
Less Severe Psychiatric Symptoms

$p=.049$



Time in treatment (months)

$p<0.02$



Time in treatment (months)



MGH FEPP Patient Story

- Millie is a 15-year-old girl
- She started to hear voices
- Began to believe that other people could hear her thoughts
- Withdrew from family and friends, her grades declined
- Admitted to a psychiatric hospital





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FEPP Patient Story

- She began treatment at FEPP
- Over several years, her symptoms improved
- Graduated high school, taking community college classes and working part-time





Stage 1

- Clinical High Risk

Stage 2

- First Episode
Psychosis

Stage 3

- Persistent Psychosis



Persistent Psychosis Principles of Care

- Sustain gains made through early intervention
- Specialized psychopharmacology
 - Achieve/maintain remission
 - Prevent relapse
- Monitor and maintain physical health
- Focus on quality of life and vocational recovery
- Promote social connection and a meaningful life

McGorry PD. Psychiatric Times 2020;37(6):14-5.



Recovery and Ongoing Care Clinic (ROCC)

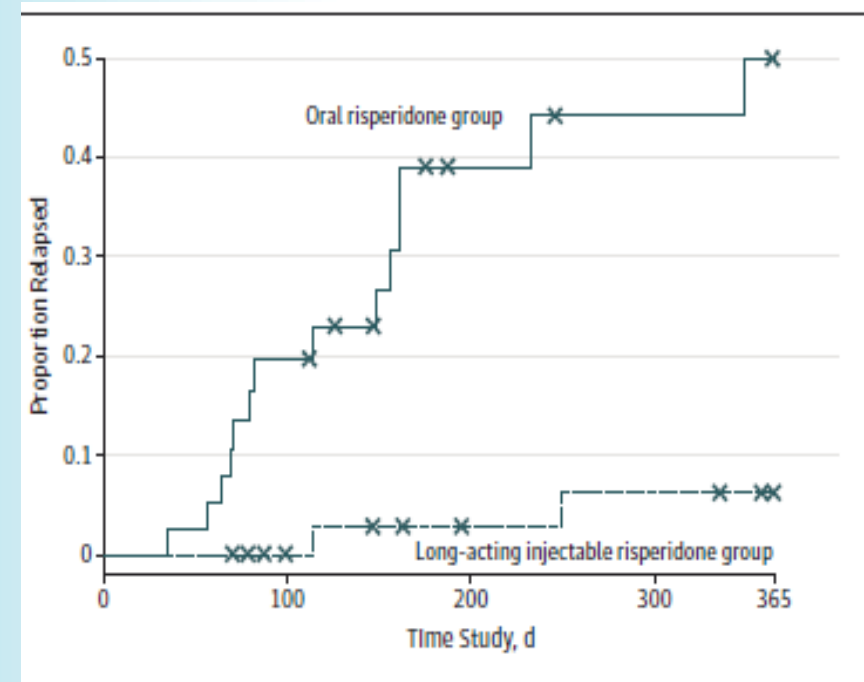
- Struggled to transition “FEPP graduates” into after-care
- Community programs
 - Lack of comfort with psychosis and associated treatments
- In 2021, we built our own program
 - Specialized psychopharmacology
 - Physical health monitoring



Specialized Psychopharmacology

- Schizophrenia is a relapsing-remitting illness
 - Cumulative social toxicity
- Relapse prevention is a key goal
- Long-acting injectable antipsychotics (LAIs) can prevent relapse¹
 - 10% of ROCC patients
- LAIs decrease:
 - Risk of hospitalization¹
 - Suicide attempts^{1, 2}
 - All cause mortality²

Time to Relapse



Subotnik KL et al. *JAMA Psychiatry*. 2015;72(8):822-829.

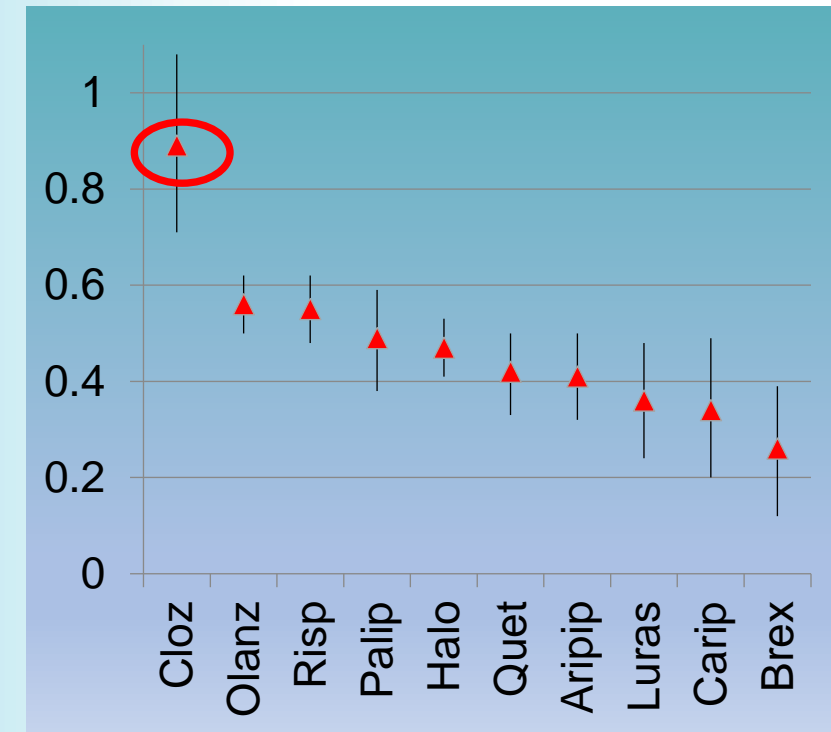
1. Wei Y et al. *Jama Network Open* 2022;5(7):e2224163.

2. Huang SC et al. *Jama Network* 2021;4(5):e218810. WWW.MGHCMC.ORG

Treatment Resistant Schizophrenia

- Clozapine is more effective than all other antipsychotics
- Clozapine requires expertise to prescribe
- Clozapine Clinic
 - 35% ROCC patients

Comparative Efficacy Meta-Analysis





Monitor Physical Health

- Critical component of treatment
- Schizophrenia is associated with a 20-year decrease in life expectancy¹ and a 4-fold increase in mortality²
- Premature mortality is due to cardiovascular disease, respiratory disease, infections and cancers³
- Related to underlying illness, sedentary lifestyle, smoking, antipsychotic medications, inadequate medical care

1. Druss BG et al. Med Care 2011;49(6):599-604. 2. Revier CJ et al. J Nerv Ment Dis 2015;203(5):379-86. 3. Olfson M et al. JAMA Psychiatry 2015;72(12):1172-81.



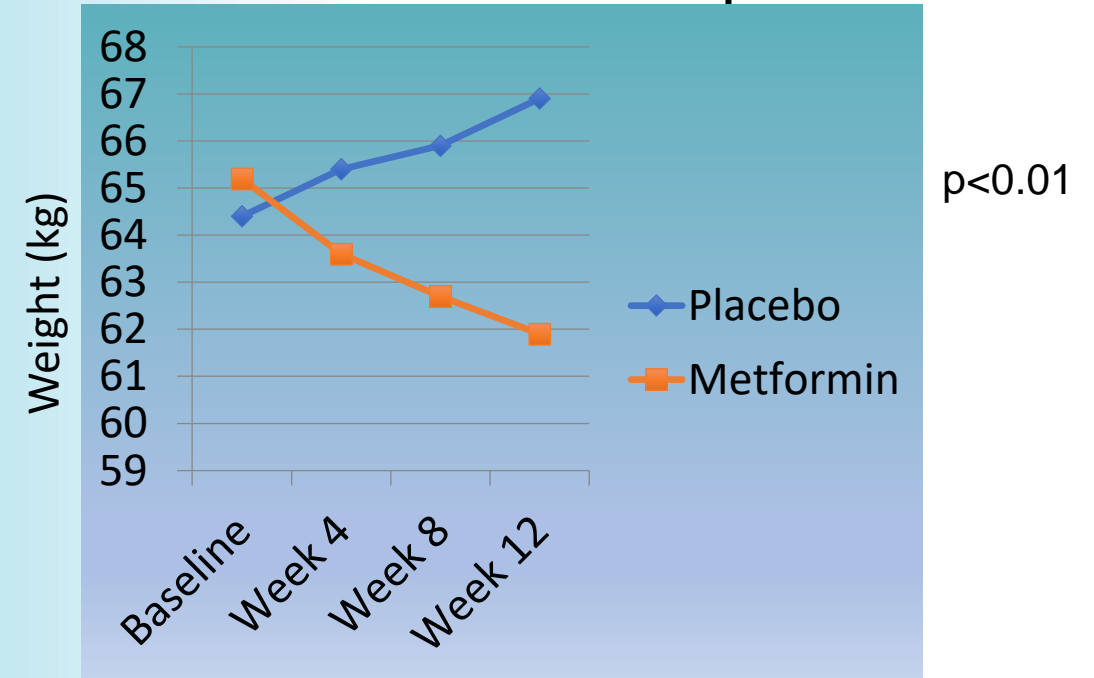
Monitor Physical Health

- All patients require medical monitoring
- Standardized system in the Electronic Medical Record to monitor:
 - Weight and BMI
 - Cholesterol panel
 - Blood sugar (HbA1c)
 - Therapeutic drug levels
 - Blood count, electrolytes, thyroid, liver function
 - Immunizations (flu, COVID, pneumonia)
 - Smoking status
- Adapting Coordinated Health and Medical Prevention Service (CHAMPS) program?
 - Dedicated visit/staff to focus on physical health parameters

Monitoring isn't enough

- Intervene for abnormalities
- We see some of our patients more frequently than their PCP
- We can competently make basic physical health interventions
 - Prescribe metformin, statins, beta blockers
 - Recommend exercise and nutrition programs
 - Refer to specialists when needed

Patients with schizophrenia prescribed metformin or placebo



Wang M et al. Schizophr Res 2012;138(1):54-57.



ROCC Patient Story

- Sam is a 21-year-old male who developed psychosis at age 17
- He enrolled in FEPP
- Symptoms gradually improved
- After 3 years, he transitioned to ROCC
- Taking college courses and working part-time
- Symptoms are stable at a low level
- In great physical health



Next Steps?



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*"I was wondering when you'd
notice there's lots more steps."*



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