Speaker Profiles

Brooke Kempf, PMHNP

**Position:** Ms. Kempf is a Psychiatric Mental Health Nurse Practitioner at the Hamilton Center, Inc. in Terre Haute, IN. She is also an adjunct lecturer, clinical preceptor coordinator/manager, and consultant at the Indiana University-Purdue University of Nursing in Indianapolis, IN.

**Education:** Ms. Kempf earned an MS degree in Adult Psychiatric Mental Health Nurse Practitioner from Stony Brook University (Stony Brook, NY). She received a BS degree from the Indiana State University School of Nursing (Terre Haute, IN).

Michael Townsend, LMSW

**Position:** Mr. Townsend is the Deputy Chief Executive Officer at Gateway Counseling Center, Inc. in Greater New York City, NY. He also serves on the Board of Directors for the Mental Health Association in New York State.

**Education:** Mr. Townsend earned a BA and MS degree in Forensic Psychology from John Jay College of Criminal Justice (New York City, NY). He also received a MS in Social Work (MSW) from Hunter College (New York City, NY) and a certification in Field Instruction from Lehman College (Bronx, NY).
Shauna Garris, PharmD, BCPP, BCPS

**Position:** Dr. Garris is a Pharmacy Clinical Specialist of Psychiatry at UNC Health Care in Chapel Hill, NC. She is also an Adjunct Assistant Professor in the Division of Practice Advancement and Clinical Education at UNC Eshelman School of Pharmacy in Chapel Hill, NC.

**Education:** Dr. Garris earned her PharmD from University of North Carolina at Chapel Hill (Chapel Hill, NC). She completed her Psychiatry Pharmacy Residency from the Medical University of South Carolina (Charleston, SC).
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Key Objectives

Provide a brief overview of schizophrenia and the importance of a multidisciplinary approach.

Impart the value of social worker, pharmacist, and nurse practitioner treatment perspectives by using patient cases.

Discuss the importance of: the transition from inpatient to outpatient care, treatment adherence, and medical risk management.
Schizophrenia is a lifelong condition that often requires ongoing treatment\(^1\)

- More than 80% of patients experienced relapse within 5 years following the onset of the disease\(^2\):
  - Relapses may be associated with clinical deterioration\(^2\)

- There are many reasons why patients relapse (eg, patients may no longer respond to the medication,\(^3\) poor adherence,\(^4\) or may relapse despite treatment adherence\(^5\))

- Relapse prevention is a major challenge in the care of patients with schizophrenia\(^2\)

- Patients with schizophrenia are typically prescribed several different antipsychotics throughout their lifetime\(^6\)

Nonadherence May Contribute to a Downward Spiral of Worsened Prognosis

- Nonadherence, even early and partial, may increase risk of hospitalization, relapse, attempted suicide, and impaired social and occupational functioning in SMI.

Illustration of the potential impact of continued partial or nonadherence on the patient diagnosed with schizophrenia and on the prognosis over time.

Impact on illness

- Full recovery
- Incomplete recovery
- Symptom exacerbation
- Relapse
- Danger to self/others

Potential impact on patient

- Full recovery
- Loss of confidence
- Demoralization
- Loss of job
- Family discord
- Rehospitalization
- Danger to self/others

Duration of nonadherence

Occasional
Days
Weeks
Months

Adapted with permission from Keith SJ, Kane JM. J Clin Psychiatry. 2003;64(11):1308–1315.


SMI, serious mental illness.
Increasing knowledge of the course of the illness and outcomes has led to more integrated multidisciplinary team approaches to schizophrenia management. 

PATIENT CASE STUDY 1

Case study is for illustrative purposes only.
Bob Davis: Profile and History

- Bob Davis, age 25 years, diagnosed at age 17 with schizophrenia
- Lives with his family, who are afraid of him, and have little understanding of his illness
- Mr. Davis required 16 previous admissions to local crisis units
- Low adherence to medications
- Employment unstable
- Several antipsychotics were tried with minimal success
- Mr. Davis is now hospitalized, stable on his new antipsychotic medication and will be discharged soon

Case study of fictional patient is for illustrative purposes only.
Many Patients With Schizophrenia Fail to Transition From Inpatient Settings to CMHCs

Nearly two-thirds of patients did not attend their initial outpatient appointment\(^1\)

\(~40\%\) of patients did not receive any outpatient visits within 30 days of discharge\(^2\)

CMHCs, community mental health centers.

The Discharge Plan Should Start at Hospital Admission

• Should be a collaborative process between hospital staff, the patient, the family, and the community aftercare agencies

• Services that are needed can include:
  – Assistance with finding adequate housing
  – Obtaining referrals for patients to enter vocational / prevocational planning
  – Obtaining referrals for patients into programs that offer social activities

• Recovery planning is a vital part of the discharge plan

• Based on 1 study, patient involvement in outpatient programs while still in the hospital had a significant impact on patients keeping scheduled appointments for outpatient services

• Identifies the patient’s plans and support that the patient and caregiver would require after discharge from the inpatient unit

1. Alghzawi HM. Int Scholarly Research Network. 2012;article ID 638943;
Effective Communication May Improve the Clinical Bridging of Patients from Acute to Outpatient Settings

Based on a study of 229 inpatients with a primary psychiatric diagnosis:
Patients whose discharge plans were discussed by inpatient and outpatient clinicians were more than twice as likely to keep their initial outpatient appointment (43% vs. 19%)¹

Pharmacists Can Fill Voids in Patient Care

- Treating serious mental illness poses many challenges for clinicians
  - **Primary care clinicians**¹
    - May lack the skills to treat this population
    - Time constraints
  - **Psychiatrists**¹,²
    - May not believe physical health is their responsibility
    - May lack physical medicine skills
    - Shortage of psychiatrists
- Pharmacists may help bridge some of the gaps and needs of primary care and health care systems³

### Top Actions Taken by Pharmacists to Resolve Medication-related Problems (Excluding Education)⁴

<table>
<thead>
<tr>
<th>Action</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Change Dose or Drug Interval</td>
<td>14,981</td>
</tr>
<tr>
<td>Add Medication</td>
<td>5554</td>
</tr>
<tr>
<td>Order Test</td>
<td>4230</td>
</tr>
<tr>
<td>Discontinue Medication</td>
<td>3847</td>
</tr>
<tr>
<td>Substitute Medication</td>
<td>2665</td>
</tr>
</tbody>
</table>

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*The information provided by PsychU is intended for your educational benefit only. It is not intended as, nor is it a substitute for medical care or advice or professional diagnosis. Users seeking medical advice should consult with their physician or other healthcare professional.*
## Bob Davis: Clinical Recommendations

<table>
<thead>
<tr>
<th>Social Worker</th>
<th>Pharmacist</th>
<th>Nurse Practitioner</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Provide psychosocial education to the patient and family</td>
<td>• Educate the patient about the medication and side effects</td>
<td>• Assess for previous gaps in patient care and problem-solve ways to make improvements</td>
</tr>
<tr>
<td>• Consider referral to a vocational program</td>
<td>• Assure medication is available upon discharge</td>
<td>• Evaluate precursors of symptom breakthrough</td>
</tr>
<tr>
<td>• Assist with the linkage between inpatient and outpatient care</td>
<td>• Evaluate the cohesiveness of inpatient and outpatient recommendations</td>
<td>• Incorporate family into discharge planning</td>
</tr>
<tr>
<td>• Assess patient motivation and insight into condition</td>
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</tr>
</tbody>
</table>
Adherence to Antipsychotic Medication in Patients With Schizophrenia

- A recent systematic review analyzed 38 studies of 51,796 patients*
  - Adherence ranged from 60% to 81% in studies measuring subjectively and objectively, and from 34% to 80% in studies measuring subjectively

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*Patients were diagnosed with bipolar disorder, schizophrenia, schizoaffective disorder, or schizophreniform disorder who were being treated with antipsychotics; 10,385 included patients had schizophrenia, 544 had schizoaffective disorder, 516 had schizophreniform disorders, and 53 had psychosis not otherwise specified.

PATIENT CASE STUDY II

Case study is for illustrative purposes only.
Marla Evers: Profile and History

- Marla Evers, age 45 years; diagnosed at age 24 with schizophrenia
- Was married; has 2 children
- Currently divorced, unemployed, and on SSDI; she has no contact with her children
- History of nonadherence with all medications
- Ms. Evers has had 40 crisis unit admissions and multiple arrests due to her aggressive behaviors
- History of alcohol and drug abuse
- Type II diabetes
- Limited financial resources; lacks support
- Lives at a shelter

1. SSDI=social security disability insurance.

Case study of fictional patient is for illustrative purposes only.
Schizophrenia Is Associated With an Increased Prevalence of Psychiatric Comorbidities


- Schizophrenia Population (%) N=26,279
- Control Population (%) N=1,936,876

- Schizophrenia patients also had longer hospitalizations

*Prevalence in control population ≤2%.

Patients With Schizophrenia Are More Likely to Have Physical Comorbidities

Prevalence of Physical Comorbidities in Schizophrenia Patients (mean age, 40.2 y) and Control Subjects (mean age, 37.7 y) from the Wellmark Blue Cross/Blue Shield of Iowa Database

- 33.2% of schizophrenia patients had ≥3 comorbidities compared with 12.1% of controls (P<0.0001)
- 29% of schizophrenia patients had no comorbidities compared with 54.7% of controls (P<0.0001)
- Schizophrenia patients required significantly more months of follow-up care and more healthcare visits

*The adjusted odds ratio was not significant (OR 0.99, 95% CI 0.81-1.20).
Important to Consider Clinical Benefits Against Side Effects Throughout the Course of Disease

Clinical benefits\(^{1,2}\):
- Efficacy against positive, negative, and cognitive symptoms
- \(\downarrow\) relapse risk
- \(\uparrow\) stability

Side effects (examples)\(^{1,2*}\):
- EPS (incl. akathisia)
- Sedation
- Weight gain
- Metabolic effects
- Hyperprolactinemia / sexual side effects

- Antipsychotics vary in their clinical efficacy and in their side-effect profiles\(^2\)
- In patients with schizophrenia, stable disease is associated with better quality of life, whereas relapse is strongly associated with reduced quality of life\(^3\)
- Side effects are associated with a reduced quality of life, with some side effects (eg, EPS, diabetes) having a more pronounced effect than others\(^3,4\)
- Treatment decisions change based on stage of disease and tolerability of current medication\(^1\)

*Prevalence dependent on class of antipsychotic being used.
Chronic Schizophrenia Patients on Established Antipsychotic Therapy Demonstrate Multiple Risk Factors for Metabolic Syndrome

Summary of individual metabolic syndrome risk factors in a meta-analysis of 21 studies of unmedicated schizophrenia patients (n = 8593), 26 studies of first-episode schizophrenia patients (n = 2548), and 78 studies of medicated patients with chronic schizophrenia (n = 24,892)

- Among patients with chronic schizophrenia:
  - 1 in 2 are overweight (waist size: men > 102 cm, women, > 88 cm)
  - 2 in 5 have high blood pressure (>130/85 mmHg)
  - 1 in 10 have diabetes
- First-episode schizophrenia patients had significantly fewer metabolic risk factors than those on established antipsychotic medication

*Data from a meta-analysis of 32 publications. BP, blood pressure; HDL, high-density lipoprotein; IFG, impaired fasting glucose.
### ADA/APA Monitoring Guidelines

<table>
<thead>
<tr>
<th></th>
<th>Baseline</th>
<th>4 Weeks</th>
<th>8 Weeks</th>
<th>12 Weeks</th>
<th>Quarterly</th>
<th>Annually</th>
<th>Every 5 Years</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personal/family history</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Weight (BMI)</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Waist circumference</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Blood pressure</td>
<td>X</td>
<td></td>
<td></td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
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<tr>
<td>Fasting plasma glucose</td>
<td>X</td>
<td></td>
<td></td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fasting lipid profile</td>
<td>X</td>
<td></td>
<td></td>
<td>X</td>
<td></td>
<td>X</td>
<td></td>
</tr>
</tbody>
</table>

If a patient gains ≥ 5% of his/her initial weight at any time during therapy, consider switching to a different antipsychotic. More frequent assessments may be warranted based on clinical status.

Note: These guidelines also rated available atypical antipsychotic agents according to their propensity to cause metabolic dysregulation (specifically, weight gain, risk for diabetes, and worsening lipid profile).

ADA, American Diabetes Association; APA, American Psychiatric Association; BMI, body mass index.

Medical Risk Management Strategies of Antipsychotic-treated Patients

**Treatment Initiation**
- Healthy lifestyle counseling
- Healthy lifestyle intervention
- Start with lower-risk antipsychotic

**If Adverse Effect Is Present**
- Healthy lifestyle counseling/intervention
- Consider changing to lower-risk antipsychotic
- Consider weight loss intervention

**If Adverse Effect Progresses/Serious**
- Healthy lifestyle counseling/intervention
- Considering changing to lower-risk antipsychotic
- Add targeted treatment for pathological values
- Consider referral to specialist

Correll CU. CNS Spectr. 2007;12(10) (suppl 17):12–20,35.
# Marla Evers: Clinical Recommendations

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</tr>
</thead>
<tbody>
<tr>
<td>• Provide psychosocial education to the patient</td>
<td>• Weigh pros and cons of a multi-drug regimen</td>
<td>• Provide education on diabetes management</td>
</tr>
<tr>
<td>• Explore alcohol and drug abuse history</td>
<td>• Evaluate barriers to medication adherence</td>
<td>• Help with development of support system</td>
</tr>
<tr>
<td>• Evaluate eligibility for food stamps</td>
<td>• Assist with patient access to medication</td>
<td>• Follow ADA/ APA monitoring guidelines</td>
</tr>
<tr>
<td>• Assist with finding stable housing</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>