Primary Care Providers Working in Mental Health Settings:
Improving Health Status in Persons with Mental Illness

Lori Raney, MD
With: Katie Friedebach, MD, Todd Wahrenburger, MD, Jeff Levine, MD, Susan Girois, MD

Module 4
Psychopharmacology for Common Illnesses and Working with Psychiatric Providers

Learning Objectives:
• Understand the most commonly used psychotropic medications and their potential side effects
• Discuss the problems associated with psychotropic prescribing and the role of the PCP-Psychiatric provider liaison in minimizing risk
• Appreciate the need to work with psychiatric provider colleagues on ownership of prescribing and rules of engagement
Pre Course Questions

1. Which SGAs lead to the most weight gain?
   1. Olanzapine (Zyprexa) and Quetiapine (Seroquel)
   2. Risperidone (Risperdal)
   3. Aripiprazol (Abilify) and Ziprasidone (Geodon)
   4. Haloperidol (Haldol) and Fluphenazine (Prolixin)

2. Which tests are recommended by the ADA/APA guidelines for SGAs?
   1. Lipid Panel
   2. Fasting Blood Sugar
   3. BMI
   4. All the above

3. What percentage of patients with Schizophrenia smoke?
   1. ~30 - 40%
   2. ~40 - 50%
   3. ~70 - 80%
   4. ~90%

4. What roles do the psychiatric providers play in the medical treatment of their patients?
   1. Minimize risk by selection of medications
   2. Screen for medical complications of medications
   3. Counsel on lifestyle modification
   4. All of the above

Overview Module 4

- Medication Classes
- Anxiety
- Sleep
- Smoking
- Substance Use
- Pain
- Working with Psychiatric Providers
Classes of Psychotropic Medications

Antipsychotics – 1st and 2nd Generation (SGA)

Antidepressants – TCA, SSRI, SNRI, SDRI

Mood Stabilizers

Anxiolytics

First Generation (FGA) Antipsychotics
Yes, we still use them….Potent D2 receptor blockade

High Potency – decanoate helpful for homeless, few social supports, frequent relapse
- Fluphenazine (Prolixin) has decanoate formulation – IM q 2 weeks
- Haloperidol (Haldol) also decanoate – IM monthly

Low Potency – dopamine + histamine, acetylcholine, muscarinic
- Thioridizine (Mellari)
- Loxapine (Loxatane)
- Chlorpromazine (Thorazine)
- Thiothixene (Navine)
- Perphenazine (Trilafon)
FGA Side Effects – think Parkinson’s

Dyskinesias – movement disorder (nigrostriatal dopamine pathway)
  - tongue, lips, eye, limbs, fingers
  - Tardive Dyskinesia – can be permanent
Dystonias – muscle tension
  - neck (torticollis), arms, legs – any body part
  - painful – benztropine, diphenhydramine to treat – IM available
Akisthesia – extreme restlessness
  - hard to sit still, pacing, shakiness – can be exhausting, reduce dose
Hyperprolactinemia – D2 blockade (tubuloinfundibular dopamine pathway)
  - amenorrhea, galactorrhea – lower the dose, switch, work with GYN

DECADE OF THE BRAIN

1990 – 1999

July 17, 1990

Now, Therefore, I, George Bush, President of the United States of America, do hereby proclaim the decade beginning January 1, 1990, as the Decade of the Brain.

Many new medications introduced with novel mechanisms of action during this time
### Decade of the Brain from the Trenches

#### Antidepressants
- 1987 – Prozac (fluoxetine)
- 1989 – Celexa (citalopram)
- 1989 – Wellbutrin (bupropion)
- 1992 – Zoloft (sertraline)
- 1992 – Paxil (paroxetine)
- 1993 – Luvox (fluvoxamine)
- 1993 – Effexor (venlafaxine)

#### Second Generation Antipsychotics (SGA/"Atypical")
- 1991 – Clozaril (clozapine)
- 1994 – Risperdal (risperidone)
- 1994 – Zyprexa (olanzapine)
- 1995 – Seroquel (quetiapine)
- 2001 – GeoDon (zisprazidone)
- 2002 – Abilify (aripiprizole)

We started to notice some problems…..

![Estimated Weight Change at 10 Weeks on “Standard” Dose](chart.png)
SGA Side Effects - “an epidemic within an epidemic”

<table>
<thead>
<tr>
<th>Medication</th>
<th>Diabetes</th>
<th>EPS</th>
<th>Prolactin</th>
<th>QT Interval</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aripiprazole</td>
<td>+/-</td>
<td>+</td>
<td>+/-</td>
<td>+/-</td>
<td>+</td>
</tr>
<tr>
<td>Asenapine</td>
<td>+</td>
<td>+++</td>
<td>++</td>
<td>+</td>
<td>++</td>
</tr>
<tr>
<td>Clozapine</td>
<td>++++</td>
<td>+/-</td>
<td>+/-</td>
<td>+</td>
<td>++++</td>
</tr>
<tr>
<td>Illoperidone</td>
<td>++</td>
<td>+</td>
<td>+/-</td>
<td>++</td>
<td>++</td>
</tr>
<tr>
<td>Lurasidone</td>
<td>+/-</td>
<td>++</td>
<td>+</td>
<td>+/-</td>
<td>+/-</td>
</tr>
<tr>
<td>Olanzapine</td>
<td>++++</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>++++</td>
</tr>
<tr>
<td>Paliperidone</td>
<td>++</td>
<td>+++</td>
<td>+++</td>
<td>+</td>
<td>+++</td>
</tr>
<tr>
<td>Quetiapine</td>
<td>++</td>
<td>+/-</td>
<td>+/-</td>
<td>+</td>
<td>+++</td>
</tr>
<tr>
<td>Risperidone</td>
<td>++</td>
<td>+++</td>
<td>+++</td>
<td>+</td>
<td>+++</td>
</tr>
<tr>
<td>Ziprasidone</td>
<td>+/-</td>
<td>+</td>
<td>+</td>
<td>+++</td>
<td>+/-</td>
</tr>
</tbody>
</table>

ADA/APA Screening Guidelines for Second Generation Antipsychotics

Newer SGAs

<table>
<thead>
<tr>
<th>Drug</th>
<th>Dose Range</th>
<th>Side Effects</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lurasidone (Latuda)</td>
<td>40 – 120 mg</td>
<td>Drowsiness, akisthesia, no weight gain/metabolic</td>
</tr>
<tr>
<td>Asenapine (Saphris)</td>
<td>20 – 80 mg</td>
<td>Drowsiness, no weight gain/metabolic</td>
</tr>
<tr>
<td>Iloperidone (Fanapt)</td>
<td>6 – 12 mg</td>
<td>Dizziness, dry mouth, fatigue</td>
</tr>
</tbody>
</table>

Long-acting Injectable SGAs

- Risperdal Consta  
- Invega Sustenna  
- Abilify Maintena  
- Zyprexa Relprevv  
  every 2 weeks  
  monthly  
  monthly  
  monthly - PDSS risk: Post-Injection Delirium Sedation Syndrome – 3 hour watch
**Clozapine (Clozaril)**

- SGA used in treatment resistant patients and can be life saving for those who respond
- However, used as last resort due to life threatening agranulocytosis
- Weekly CBC x 6 months, then q 2 weeks
- Only registered pharmacies may dispense and must have CBC at pharmacy or will not get drug
- Absolute Neutrophil Count (ANC) >2
- “Clozaril clinics” in some sites due to volume and monitoring
- Therapeutic level ~ 200 – 400 ng/ml
- Same APA/ADA screening guidelines apply due to CV risk

---

**CATIE Trial**

The NIMH-funded Clinical Antipsychotic Trials of Intervention Effectiveness (CATIE) Study was a nationwide public health-focused clinical trial that compared the effectiveness of older (first available in the 1950s) and newer (available since the 1990s) antipsychotic medications used to treat schizophrenia. $42.6 million study was conducted over a five-year period at 57 clinical sites across the country.

**Perphenazine:** Perphenazine (the older medication) equally as effective as the other three newer medications (risperidone, quetiapine, and ziprasidone) and was as well tolerated as the newer drugs. The three newer medications performed similarly to one another. Slight clinical advantage with olanzapine. No substantial advantage of newer medications.
So why did we continue to use SGAs with CATIE trial results?

- **Efficacy**
- **Less sedation/more sedation**
- **Patient preference**
- Low incidence of extra pyramidal symptoms
- Low incidence of tardive dyskinesia
- Cannot tolerate alternatives


Why Not Just Switch?

If switch could get weight loss, lower FBS, favorable lipid profile, right?

Problems that might occur:
- rebound worsening of psychotic symptoms,
- side effects, such as the addition of side effects of the old and new drugs, or side effects specific to the new drug, or
- differences in efficacy between the drugs and concerns about unequal efficacy
- problems might be specific to the discontinuation of the drug or to the drug to which the patient is switched.

The strategy (sometimes called ‘overlap and taper’)
- slow tapering of the initial antipsychotic after the new drug had been titrated to the full dose
- ensures that the patient is covered with an adequate plasma level of the added drug before the former drug is discontinued
- produces fewer problems during the switch than abrupt discontinuation or gradual discontinuation before starting a new drug.

BMCMedicine 2008, 6:18
### Mood Stabilizers

<table>
<thead>
<tr>
<th>Medication</th>
<th>Dose</th>
<th>Therapeutic Level</th>
<th>Side Effects</th>
<th>Labs</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lithium</td>
<td>Varies – start at 300 mg hs</td>
<td>Active 0.8 – 1.2 Maint 0.6 – 0.8 Toxic &gt;1.5</td>
<td>Polyuria, GI, renal, thyroid, wt, diuretics, NSAIDS</td>
<td>12 hr trough TSH Cr</td>
<td>$4</td>
</tr>
<tr>
<td></td>
<td></td>
<td>*narrow window</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Valproic Acid</td>
<td>Varies – start at 500 mg</td>
<td>Active 80 – 100 Maint 60 - 80</td>
<td>Hepatic, wt, Platelets,GI Sedation, PCOS</td>
<td>12 hr trough LFTs CBC</td>
<td>$4</td>
</tr>
<tr>
<td>Carbamazepine</td>
<td>Varies – start at 200 mg</td>
<td>none</td>
<td>Sedation, wt WBC, GI, Hepatic</td>
<td>12 hr trough WBC LFTs</td>
<td>$4</td>
</tr>
<tr>
<td>Lamotrigine (depression)</td>
<td>50 – 400</td>
<td>none</td>
<td>Rash, slow titration</td>
<td>none</td>
<td>$$</td>
</tr>
<tr>
<td>SGAs</td>
<td>varies</td>
<td>none</td>
<td>See previous</td>
<td>See previous</td>
<td>$$$</td>
</tr>
</tbody>
</table>

*Evidence based psychotherapy is first line for some – Cognitive Behavioral Therapy (CBT) has good evidence

**Electroconvulsive Therapy (ECT) – can be used for both

### Treatment of Depression

#### Unipolar

- Antidepressants
  - SGAs augmentation strategy: quetiapine, aripiprazole
  
*Evidence based psychotherapy is first line for some – Cognitive Behavioral Therapy (CBT) has good evidence

#### Bipolar Depression – mood stabilizer first

- lithium
- lamotrigine
- quetiapine
- aripiprazol
  antidepresants with caution – can trigger mania, do not give without a mood stabilizer on board

**Electroconvulsive Therapy (ECT) – can be used for both
Antidepressant Categories

<table>
<thead>
<tr>
<th>Category</th>
<th>Examples</th>
</tr>
</thead>
</table>
| Selective Serotonin Reuptake Inhibitors (SSRI)   | • fluoxetine, paroxetine, citalopram – all $4  
• sertraline, escitalopram |
| Selective Dopamine Reuptake Inhibitors (SDRI)    | • bupropion                     |
| Selective Norpinephrine Reuptake Inhibitors (SNRI)| • venlafaxine                   
• duloxetine                                |
| Tricyclic Antidepressants (TCA)                   | • nortriptyline, imipramine, desipramine  
• amitriptyline                                |
| Others                                           | • remeron, trazodone, vilazadone |

NIMH STAR*D, $35 MILLION, 6 YEAR “Real World” Study of Antidepressant Prescribing
### Side Effects Antidepressants

#### Serotonergic (SSRIs)
- insomnia
- sexual side effects
- weight gain
- activation
- nausea/diarrhea

#### Norepinephrine (TCAs)
- blood pressure
- sedation
- weight gain
- cardiac in overdose

#### Dopaminergic - bupropion
- activation
- insomnia
- no sexual SE
- no weight gain
- seizure risk

#### SNRI
- combo SSRI and TCA
- nausea
- weight gain
- blood pressure changes

### Approaches to Anxiety

**Relaxation Exercises** – deep breathing, progressive relaxation

**Cognitive Behavioral Therapy**

**SSRIs, SNRIs (first line med)**
- Fluoxetine, paroxetine, sertraline, citalopram
- Duloxetine, venlafaxine

**Others**
- Benzodiazepines –
  - Alprazolam (3hr half life)
  - lorazepam (8 hr half life), clonazepam (18 hr half life), diazepam (60 hr half life)
- Gabapentin – 300 – 3000 mg (wt gain, loopiness)
- Buspirone
- SGAs
- B blockers
  - NOT Bupropion - can worsen anxiety
Rational Approach to Benzodiazepines

- Efficacy, rapid onset make them desirable
- Acute stress, fluctuating anxiety, severe panic are indications
- Limit use to acute episode if possible (4 weeks max) – can become difficult to stop this though
- Use in conjunction with other strategies – SSRI, therapy
- Side effects include sedation, tolerance, cognitive impairment, concern with increased risk of dementia, early mortality
- Base choice by half-life:
  - short anxiety attacks, events – alprazolam (3 hours)
  - sleep, intermediate coverage – lorazepam (6-8 hour)
  - longer term coverage – clonazepam (18 hours)

SLEEP

Sleep hygiene (non pharmacologic approach) first!
Naps common due to medication side effects and interfere with normal sleep patterns

Trazodone 25 – 200 mg
Gabapentin 300 – 900 mg
Mirtazapine 15 mg
SGAs – especially quetiapine
Benzodiazepines
Zolpidem – generic, 5 mg for women
Obstructive Sleep Apnea (OSA)

15% of patients with schizophrenia with OSA
Common with obesity
Excessive daytime sleepiness overlaps with other symptoms of mental illness
Combination of sleep medications, sedating medications, narcotics, benzodiazepines on top of OSA a concern – don’t want to make the problem worse

Tips:
**Find a sleep lab willing to work with your patients**
**Train case managers in importance of testing so they can help with follow-through**


Chronic Pain

SNRIs – Venlafaxine, duloxetine – some additional benefit with chronic pain due to norepinephrine activity
Gabapentin – up to 3,000 mg – watch dizziness, weight gain, renal clearance
Narcotics are CNS depressants so interfere with antidepressant action. Many chronic pain patients are depressed so do not get antidepressant benefit
Polypharmacy

- 40% of patients with schizophrenia took 2 antipsychotics
  - Add on quetiapine for sleep common
- Common: 1 or 2 antipsychotics, med for side effects, antidepressant, anxiolytic
- **Reconciliation with other meds important and difficult to accomplish. Use your Care/Case managers, EMR**
- Work as a team with your psychiatric providers to avoid duplication
- Find non-pharmacologic interventions when possible

Day in the life of a psychiatric provider

49 yo female, Anxiety, citalopram 40 mg (the easy one – not SMI)
53 year old female, Bipolar I, lamotrigine 400 mg, Abilify 15 mg, chlorpromazine 300 mg, fluvoxamine 100 mg
33 year old male, Schizoaffective DO, Invega Sustenna, sertraline 100 mg, trazodone 100 mg, trileptal 300 bid
28 year old male, Schizoaffective DO, Invega Sustenna 234 mg, Invega 6 mg, Trazodone 100 mg, Depakote 1000 mg
41 year old female, Schizophrenia, olanzapine 10 mg, topomax 100 mg bid, trazodone 100 mg
53 year old male, Schizophrenia, Invega Sustenna, Bupropion SR 300 mg, trazodone 150 mg, citalopram 40 mg
Non Pharmacologic Approaches: Evidence Based Therapies

Cognitive Behavioral Therapy (CBT) for residual psychotic symptoms and anxiety disorders

Dialectical Behavioral Therapy (DBT) for personality disorders, chronically suicidal patients, teaches Distress Tolerance Skills

Motivational Interviewing – for health behavior change including smoking, weight loss, alcohol use, exercise

Behavioral Activation – great for patients that are “stuck”

SMOKING
Quantity of cigarettes consumed (packs per day) by smokers with schizophrenia, by year of study enrollment

<table>
<thead>
<tr>
<th>Year</th>
<th>Number of Smokers</th>
</tr>
</thead>
<tbody>
<tr>
<td>1999</td>
<td>10</td>
</tr>
<tr>
<td>2000</td>
<td>11</td>
</tr>
<tr>
<td>2001</td>
<td>5</td>
</tr>
<tr>
<td>2002</td>
<td>20</td>
</tr>
<tr>
<td>2003</td>
<td>20</td>
</tr>
<tr>
<td>2004</td>
<td>20</td>
</tr>
<tr>
<td>2005</td>
<td>10</td>
</tr>
<tr>
<td>2006</td>
<td>28</td>
</tr>
<tr>
<td>2007</td>
<td>13</td>
</tr>
<tr>
<td>2008</td>
<td>19</td>
</tr>
<tr>
<td>2009</td>
<td>30</td>
</tr>
<tr>
<td>2010</td>
<td>53</td>
</tr>
<tr>
<td>2011</td>
<td>24</td>
</tr>
<tr>
<td>2012</td>
<td>23</td>
</tr>
</tbody>
</table>

**Figure Legend:**

Same rate but decrease consumption (smoking fewer ppd) in patients with Schizophrenia.

**Smoking and Drug Metabolism**

- Increases metabolism at CP450 A12 so lowers drug level of olanzapine, clozapine
- 7-12 cigs to cause induction
- Need to watch if stop smoking or go to non smoking inpatient treatment setting

We give medications that block Dopamine and smoking increases dopamine so patients feel it makes them feel less “dull”. Depressed patients may find it helps their mood. Also – remember smoking is an appetite suppressant.
Tobacco Cessation – Use your Team – including the psychiatric providers

- **2 mg per day**
  - Watch for suicidal ideation
- **21 mg/day start for most**
  - Watch for smoking while using, may need breakthrough gum/lozenges
- **300 mg/day**
  - Watch for activation

Psychosocial Supports (Case Manager, Peers)


Alcohol Treatment

“Double Trouble”, Peer Run Groups, AA

- **Naltrexone** - 50 – 100 mg per day (watch hepatic functions)
- **Vivitrol** – injectable version of Naltrexone
- **Campral** - 333 mg, 2 tid (renal impairment)
- **Antabuse** - 250 mg per day
**Remember Motivational Interviewing!**

“People are generally better persuaded by the reasons that they themselves discovered than by those which have come into the mind of others.”

17th Century French Polymath Blaise Pascal – in *Pensées*

---

**Working with Psychiatric Providers**

<table>
<thead>
<tr>
<th>Co-Management</th>
<th>Manage with Primary Care Consult</th>
<th>Comprehensive Management</th>
</tr>
</thead>
<tbody>
<tr>
<td>- Each provider has their own caseload</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- PCP manages all medical problems</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Psychiatrist manages all mental health problems</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Work together to reinforce treatment plans</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Psychiatrist works with a care manager</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Manages a caseload of patients for BOTH mental health and basic medical health concerns using protocols from PCP</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- PCP available for consultation and stepped care as needed</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Typically dually trained psychiatrist – Psych/FP, Psych/IM, Child Psych/Peds</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Provider manages both medical and mental health problems</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Limited number of providers have this expertise</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*All psychiatrists are responsible for “not making people sicker”.*
Psychiatric Providers’ Responsibilities

- **Minimize**: Effects of SGAs and other psychotropic medications
- **Screen**: For Illness (APA/ADA Guidelines, etc.), others
- **Counsel**: Lifestyle Modification – smoking, weight loss
- **Treat**: Some chronic medical conditions with adequate training/consultation if desired

Engage Psychiatric Providers

- Shared patients, shared illnesses – they can counsel, switch meds, minimize side effects, treat – work in partnership with PCP
- Patients see them as their “doctor” and may want their approval first before starting medications from PCP
- Complications of psych meds and medical comorbidities require discussion among colleagues

**TIPS**
- *Staffing complicated patients together is encouraged*
- *Go to medical staff meetings – be part of their team*
- *Educate – help restore their skills in treating chronic medical problems – help them be more well-rounded medical providers*
Working with Psychiatric Providers

- Some places have no nurses, no MAs and psych feel stressed about trying to do this all themselves with scales and blood pressure cuffs
- Can be insecure about medical skills
- Uncomfortable treating other medical problems “out of my scope of practice”, “not safe”. Liability concerns.
- Check in with each other before changing each others meds, agree on changes
- May see this as intrusive meddling instead of much needed support? These are “their” pts
- We’re on the same team so lot of potential for successful partnerships!

Examples – Working with Psychiatric Providers

Psych A is community psychiatrist that has been working for the past 12 years with patients in an urban setting. She feels constrained by the 15 minute med check environment and wishes that she has more time to talk with her patient’s and develop a therapeutic alliance more often. She feels that checking vital signs, weighing the patient and talking about lifestyle changes is impossible without more staff and time for patient interaction. Her patients have a number of complex medical problems. She does not have time to call and discuss patients since she does not have a nurse or medical assistant. She has a 16 week back log for new patients.

** How might a partnership with this psychiatrist improve patient care?
Examples - continued

Psych B did a residency in internal medicine and then psychiatry. He has worked for the past 15 yrs only as a psychiatrist and never recertified for internal med. He feels comfortable refilling medications for blood pressure and diabetes in his patients that don't have a PCP however, recently, he is getting concerned about the new medications and new tests coming out for treatment of HTN and DM. He feels he has no other choice since his patients will only come to see him and no other doctor.

**How could you help this psychiatrist provide better care?**

Examples - continued

Psych 3 is a CRNP working in a community behavioral health center. She sees patients that are also managed in a federally qualified with center in the area. She admits that she is frustrated that the doctors at the FQHC seem to be giving her patients clonazepam for anxiety. She refers to the docs at the FQHC as "knuckle heads" that don't know drug addicts shouldn't be prescribed these kind of medications.

**What approach could be used to find a solution to this problem?**
Example - continued

Psych 4: has managed a CTT/ACT team for 5 years. She lost 4 patients last year to heart attack and cancer. She became frustrated by the lack of PCP's in her area that would see her patients or take the time to manage their medical problems. She has been working with two family practice doctors to develop a working relationship. She has exchanged secure email, and cell phone numbers with these providers and they talk about patient care regularly to coordinate medications and test results.

Working together for successful partnership

* Partners in Health - Primary Care/County Mental Health Collaboration Toolkit; Integrated Behavioral Health Project (IBHP), October 2009
Interactive Exercise: Reflections and Discussion

What do you see as the boundaries of care with your psychiatric colleagues?

What might be a best approach to discussing care concerns, such as a patient with cardiovascular disease on olanzapine, with psychiatric provider?

Who could you talk to if there is disagreement among the treating providers?

Pre Course Questions

1. Which SGAs lead to the most weight gain?
   1. Olanzapine (Zyprexa) and Quetiapine (Seroquel)
   2. Risperidone (Risperdal)
   3. Aripiprazol (Abilify) and Ziprasidone (Geodon)
   4. Haloperidol (Haldol) and Fluphenazine (Prolixin)

2. Which tests are recommended by the ADA/APA guidelines for SGAs?
   1. Lipid Panel
   2. Fasting Blood Sugar
   3. BMI
   4. All the above

3. What percentage of patients with Schizophrenia smoke?
   1. ~30 - 40%
   2. ~40 - 50%
   3. ~70 - 80%
   4. ~90%

4. What roles do the psychiatric providers play in the medical treatment of their patients?
   1. Minimize risk by selection of medications
   2. Screen for medical complications of medications
   3. Counsel on lifestyle modification
   4. All of the above
Pre Course Answers

1. Which SGAs lead to the most weight gain?
   1. Olanzapine (Zyprexa) and Quetiapine (Seroquel)
   2. Risperidone (Risperdal)
   3. ARipiprazole (Abilify) and Ziprasidone (Geodon)
   4. Haloperidol (Haldol) and Fluphenazine (Prolixin)

2. Which tests are recommended by the ADA/APA guidelines for SGAs?
   1. Lipid Panel
   2. Fasting Blood Sugar
   3. BMI
   4. All the above

3. What percentage of patients with Schizophrenia smoke?
   1. ~30 - 40%
   2. ~40 - 50%
   3. ~70 - 80%
   4. ~90%

4. What roles do the psychiatric providers play in the medical treatment of their patients?
   1. Minimize risk by selection of medications
   2. Screen for medical complications of medications
   3. Counsel on lifestyle modification
   4. All of the above

Resources

Jones AM et al. ACNP; 1999.
End of Module 4