Current Psychiatry

Med/Psych Update

Keeping patients physically well: A psychiatrist's 'CIVIC' duty

Watch for 5 common medical problems

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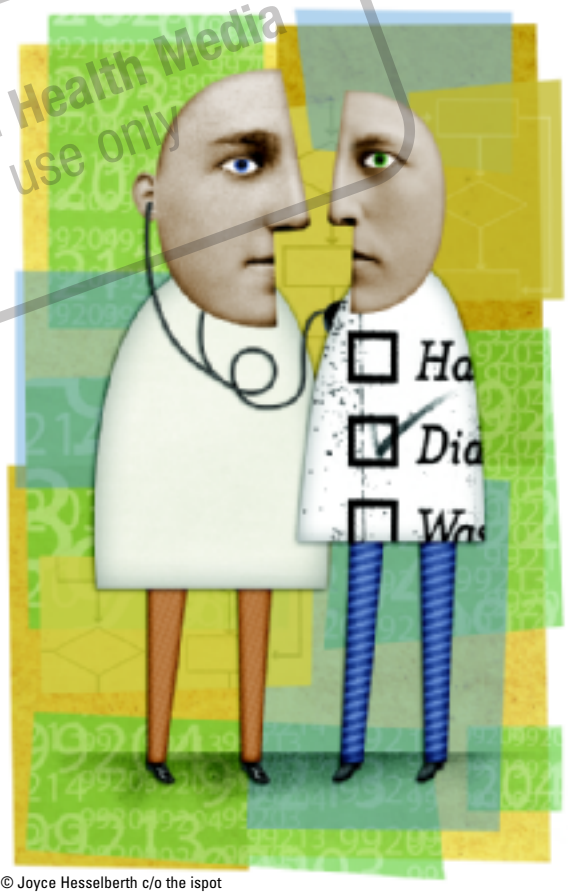

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Many patients with a severe mental disorder go years without preventive medical treatment, leaving them medically ill or at high risk for a medical illness.[1] These patients usually lack health insurance, mistrust doctors, or cannot navigate the health-care system because of mental disability (*Box 1, page 78*). Alcohol and/or drug abuse, obesity or malnourishment, lack of exercise, or other high-risk behaviors increase the danger for some.[2]

Many of these patients see no other doctor, leaving the psychiatrist to provide much-needed preventive care. This article explains:

- how frequently to screen psychiatric patients for medical problems
- when to refer them for further medical treatment
- how to ensure that they complete suggested tests.

CASE: NO CARE FOR 5 YEARS

Mrs. J, age 52, arrives for her bimonthly medication check. Her bipolar disorder is starting to stabilize, though in the past she has battled mixed episodes, difficulty with sleep, racing thoughts, and depression. She is taking olanzapine, 15 mg/d, and oxcarbazepine, 600 mg bid.

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Mrs. J, a widow, lives in subsidized housing with her daughter and grandson. While discussing her psychiatric care, She mentions that she last saw a primary care physician 5 years ago, when she still had insurance. Upon questioning, she says she has been smoking about a pack per day for 33 years. She also reveals that 6 years ago she was diagnosed with dyslipidemia that was left untreated. Her body mass index (BMI) is 36, indicating clinical obesity.

Table 1
CIVIC: Primary prevention objectives

Cardiovascular	Screen for risk factors such as dyslipidemia, tobacco abuse, and diabetes
Iatrogenic	Watch for complications from psychotropic use
Vaccinations / infections	Check immunization history; screen for common infectious diseases
Intake	Offer nutritional counseling to obese patients
Cancer	Screen for common cancers (colon, cervical, breast, prostate) that can be treated into remission if detected early

Discussion. For 5 years, disabling mood symptoms, lack of initiative, and loss of medical insurance have kept Mrs. J from getting proper preventive medical care. She is overdue for numerous recommended laboratory and other tests, and her weight and long-standing nicotine habit place her at significant risk for a comorbid medical illness. We also need to make sure olanzapine or oxcarbazepine are not causing serious medical problems.

The mnemonic CIVIC (*Table 1*) reminds us to check for specific risk factors. Because time is limited at each patient visit, measure these risk factors over several visits rather than all at once. Check first for cardiovascular risk factors, which are associated with the greatest morbidity and mortality. Prioritize other screenings based on signs and symptoms or patient or family medical history.

Mrs. J is overweight and has had dyslipidemia. We will gauge her cardiovascular risk, then ask about her diet and screen for medication-induced metabolic complications.

CARDIOVASCULAR RISK

Lifestyle, substance use, and complex genetics increase psychiatric patients' risk of cardiovascular disease (CVD).[3-5] Dyslipidemia, smoking, hypertension, and diabetes mellitus contribute to CVD.

Blood pressure. Check at each visit for patients with a history of hypertension and every 3 to 4 months for nonhypertensive patients. The Seventh Report of the Joint National Committee on Prevention, Detection, Evaluation, and Treatment of High Blood Pressure (JNC 7)[6] defines blood pressure <120/80 mm/HG as normal in patients with no history of CVD. Target blood pressure should be <130/80 mm/HG for patients with diabetes mellitus, renal disease, or other risk factors, and <140/90 mm/HG for hypertensive patients without these risk factors.

Lipid profiles. The National Heart, Lung, and Blood Institute recommends checking cholesterol and triglycerides every 5 years starting at age 35 for men and age 45 for women.[7] Presence of diabetes, hypertension, low high-density lipoprotein (HDL) cholesterol, family history of premature congenital heart disease, cigarette use, and older age (≥ 55 for women, ≥ 45 for men) are major risk factors that warrant more-aggressive surveillance.[8]

Total cholesterol ≥ 200 mg/dL, low-density lipoprotein (LDL) cholesterol ≥ 130 mg/dL, HDL cholesterol <40 mg/dL, and triglycerides ≥ 150 mg/dL are considered abnormal lipid values (*Table 2*). Modify lipid goals for patients with the major risk factors mentioned above. The greater the risk factors, the more stringent the lipid levels.[8]

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Box 1

Why psychiatric patients do not receive preventative medical care

- **Lack** of health insurance
- **Mistrust** of physicians; paranoia can exacerbate mistrust
- **Lack** of motivation because of depression or cognitive dysfunction
- **Inability** to navigate health care system; cognitive dysfunction can contribute
- **Distractibility** secondary to psychosis can impede follow-up, lead to missed appointments
- **Reluctance** of some medical physicians to treat psychiatric patients

Blood glucose. Screen for diabetes by testing nonfasting plasma glucose, fasting plasma glucose, or glucose tolerance in patients age ≥ 45, with special attention to those with BMI ≥ 25 kg/m.[2] If initial results are normal, order another test in 3 years.[8] Persons with BMI >25 kg/m^2 and other risk factors should be tested before age 45.[9]

The American Diabetes Association's (ADA) 2005 clinical practice recommendations[10] state that nonfasting plasma glucose ≥ 200 mg/dL, fasting plasma glucose ≥ 120 mg/dL, and glucose tolerance ≥ 200 mg/dL could indicate diabetes mellitus, particularly if coupled with unexplained weight loss and symptoms of polyuria and polydipsia. Refer the patient to a primary care doctor, endocrinologist, or community indigent clinic.

Glycosylated hemoglobin. Because testing patients while fasting may be difficult, glycosylated hemoglobin (Hb A1c) testing estimates serum glucose over the previous 3 months. Although not considered a standard diagnostic tool, the Hb A1c test offers some information about the patient's glycemic control and risk of end-organ damage. Refer patients with Hb A1c ≥ 6 mg/dL and classic diabetes signs/symptoms or patients with and Hb A1c ≥ 7 mg/dL to a primary care doctor or endocrinologist.

If you do not have a registered nurse on staff, a private or hospital laboratory can perform lipid, blood glucose, and Hb A1c testing. Alternately, you can use an office glucose meter to measure random glucose.

Cigarette smoking is more prevalent among the mentally ill than among the general population.[11] Psychiatric patients thus face higher risk of hypertension, stroke, and myocardial infarction.[12]

Ask the patient whether he or she smokes. If yes, ask him/her to identify triggers for smoking and to describe previous attempts to quit. Suggest that the patient quit, and ask at every visit if he or she has reduced or stopped cigarette use. If the patient does not smoke, encourage continued abstinence[13] (see *Related resources,* page 84, for U.S. Public Health Service guidelines).

When to refer. Refer patients with two or more cardiovascular risk factors or symptoms (high blood pressure, high-risk cholesterol ratio, elevated blood glucose, and/or cigarette use) to a primary care physician, endocrinologist, or hospital clinic for management.

IATROGENIC COMPLICATIONS

Often the medications we prescribe heal mental anguish with the risk of physical complications

No clear consensus exists for monitoring anticonvulsant use. We suggest that you order CBCs and liver function tests (LFTs) when starting an anticonvulsant, as these agents can cause hepatic complications and blood dyscrasias. Lithium can impair renal function and cause significant hypothyroidism.

Clinical impression should dictate need for further laboratory testing. With anticonvulsants, order CBCs, LFTs, ammonia, and carnitine test-

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Table 2

At what point do lipid levels indicate cardiovascular risk?

	Safe	Borderline*	Needs treatment †	Treatment options
Total cholesterol	<200	200-239	> 240	See LDL cholesterol treatment options
LDL cholesterol	<129	130-159	> 160	Lifestyle changes Statins Bile sequestrants Nicotinic acid Fibrate
HDL cholesterol	>60¶	59-39	<40	Lifestyle changes Treat triglycerides Add nicotinic acid or fibrate
Triglycerides	<150	150-199	> 200	Lifestyle changes Statins Consider nicotinic acid or fibrate

*Treat according to risk factors. See Adult Treatment Panel III guidelines for specific regimens and cautions.

†Three- to 6-month trial of lifestyle changes may be warranted in most cases. Urge patients to reduce saturated fat and cholesterol, eat more soluble fiber, and exercise more.

¶ Removes one risk factor

Source: Adapted from the Third Report of the Expert Panel on Detection, Evaluation, and Treatment of High Blood Cholesterol in Adults (Adult Treatment Panel III) (www.nhlbi.nih.gov/guidelines/cholesterol)

ing semiannually or when clinically indicated for patients with biochemical or hematologic disorders, neurodegenerative diseases, or hepatic compromise.[14] Consider ordering creatinine and T4, T3, free T4, and thyroid-stimulating hormone at baseline and 6 months after starting lithium. Check creatinine every 6 months or more frequently if risk factors are present.[15]

Monitor patients taking atypical antipsychotics for metabolic changes. Check lipids, serum glucose, blood pressure, weight, and waist circumference at regular intervals as suggested by the ADA Development Conference on Antipsychotic Drugs and Obesity and Diabetes.[16]

When to refer. Multiple abnormal readings—such as high blood glucose, low HDL cholesterol, large abdominal girth, and high blood pressure—suggest an evolving metabolic syndrome.

Refer patients with suspected metabolic syndrome to a primary care physician or endocrinologist for management. Refer patients taking anticonvulsants if readings or symptoms suggest hepatitis or dyscrasia. Significant abnormalites include leukocites $<2x10^9$, platelets <100,000, new-onset anemia, bruising, bleeding, rash, abdominal pain, jaundice, lethargy, and seizure activity.[14]

VACCINATION HISTORY/INFECTION RISK

Vaccinations. Many psychiatric patients are not up to date with vaccinations against hepatitis, influenza, or pneumonia. Ask the patient to recall his or her vaccination history as accurately as possible. If he or she cannot, contact the primary care physician the patient visited most recently.

If you cannot obtain the history, refer the patient to the municipal health department for influenza

Table 3

Who needs which vaccines—and how often

Vaccine	Targeted group/frequency
Tetanus	Two-vaccine series for intravenous drug abusers; vaccine series for adults who did not receive primary series; boosters if ≥10 years since vaccination
Hepatitis A	Intravenous drug users, institutionalized persons, homosexual men, and those living or working where hepatitis A is endemic
Hepatitis B	Three-vaccine series for health care workers, sexually active heterosexual men and women, homosexual/bisexual men, hemodialysis patients, intravenous drug abusers, institutionalized persons
Influenza	Annual vaccination for persons age ≥50; patients with CVD, diabetes, HIV, renal disease, or pulmonary disease; and others who are immunosuppressed, pregnant, or in a nursing home. Check updates from CDC throughout flu season
Pneumococcal	Persons age ≥65; institutionalized patients age ≥50; those with alcohol dependence, asplenia, HIV, chronic CVD, chronic lung disease, diabetes, chronic liver disease, renal insufficiency, or who live in settings where pneumococcal disease can spread. Repeat dose on or about 65th birthday if immunized ≥5 years earlier

COPD: Chronic obstructive pulmonary disease

STD: Sexually transmitted disease

Source: U.S. Centers for Disease Control and Prevention. Recommended adult immunization schedule, by vaccine and age group (www.cdc.gov/nip/recs/adult-schedule.pdf)

vaccine and a blood test to verify hepatitis B immunization. Educate patients on the benefits of vaccination, and coordinate with a primary care doctor or case manager to ensure the patient's immunization.

Guidelines from the U.S. Preventive Services Task Force (USPSTF) spell out who should receive tetanus, hepatitis A or B, influenza, or pneumonia vaccines—and how often they should receive them (*Table 3*). In many states, municipal health departments offer these immunizations. Alternately, refer patients to a local indigent clinic.

Sexually transmitted disease. Neglected general health or malnourishment can weaken the immune system and increase susceptibility to infections. Patients who live in urban areas or public housing—where infections tend to spread—are especially vulnerable.

In addition, mentally ill persons are more likely than the general population to have a sexually transmitted disease (STD)[17,18] because:

- mental illness can cloud judgment; for example, patients with bipolar mania are at risk for impulsive, hypersexual behavior
- some mentally ill patients support themselves with prostitution.

While taking a complete history during the initial visit, ask patients how often they have sex and with whom. If the patient acknowledges sexual activity with multiple partners, ask periodically about current sexual activity. Explore the patient's understanding of the motivations and risks associated with dangerous sexual behavior, then educate him or her about safe sexual practices.

Refer sexually active patients to a hospital or private laboratory for an HIV test and an RPR to test for syphilis. Refer sexually active women age ≤ 25 for DNA cervical probes for gonorrhea and chlamydia. Evidence is equivocal for screening anymptomatic women age >25 for chlamydia or gonorrhea infection. Sexually inactive women or those in monogamous relationships may not need routine screening. For sexually active men, urine testing to screen for chlamydia or gonorrhea is available.[19]

Consult a local health clinic or gynecologist for

the DNA probe, although some clinical laboratories can check urine for signs of cervical problems. Ask sexually active patients if/when they were immunized against hepatitis B. If needed, refer for vaccination.

MANAGING DIETARY INTAKE

Obesity—defined by the National Institutes of Health as BMI ≥ 30 kg/m^2—often precedes preventable chronic diseases and cancer. Persons with chronic severe mental illness tend to be more sedentary than nonmentally ill persons,[20] and research suggests that obesity is more common among patients with severe mental illness than among the general population.[21] Also, poorer patients have trouble maintaining a balanced diet.

Calculate BMI using the National Heart, Lung and Blood Institute BMI calculator (http://www.nhlbisupport.com/bmi/bmicalc.htm). Encourage patients with BMI >25 kg/m^2 to eat more fruits and vegetables, eliminate empty calories (alcohol, soda pop, juices, candy), and decrease fat consumption (especially fast food). Suggest to patients age ≥ 50 that they incorporate calcium, 1,200 mg/d, and vitamin D, 400 to 800 IU/d, in their diet to prevent osteoporosis.[22]

Also encourage patients to exercise moderately for a half-hour daily, 5 days a week, to burn calories. Supplement nutritional counseling with behavioral therapy, focusing on changing eating patterns.[23]

CANCER PREVENTION

Many patients with chronic mental illness are not regularly screened for colon, cervical, breast, or other common early-stage cancers. In addition, their cancer rates are significantly higher than those of the general population.[24]

Ask men at the initial visit when they were last screened for colon or prostate cancer. Ask women when they were last screened for colon, cervical or breast cancer (*Table 4*). Ask again once yearly.

Colon cancer. Colonoscopy, done by a gastroenterologist, is indicated for patients age >50 every 5 to 10 years, depending on endoscopic findings. In-office fecal occult blood tests (FOBT), per-

Table 4
Recommended intervals for cancer screening

Type of cancer	Recommended test frequency
Colon	Asymptomatic persons age >50 should receive colonoscopy every 5 to 10 years, as directed by the gastroenterologist, and annual fecal occult blood tests
Cervical	Annual Pap smears for women who have ever been sexually active and still have a cervix
Breast	Mammography every 1 to 2 years after age 40
Lung	Evidence does not support routine chest x-rays or sputum cytology in asymptomatic patients
Prostate	Refer men age >50 to primary care physician or hospital laboratory for PSA test; counsel patients about the results and treatment

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Related resources

- U.S. Preventative Services Task Force. Continually updated, evidence-based screening recommendations for a range of medical problems. www.ahrq.gov/clinic/uspstfix.htm.
- U.S. Public Health Service. Clinical practice guideline: treating tobacco use and dependence. www.surgeongeneral.gov/tobacco/treating_tobacco_use.pdf.

DRUG BRAND NAMES

Olanzapine • Zyprexa

Oxcarbazepine • Trileptal

DISCLOSURE

Dr. Moss recevies research/grant support from the National Institutes of Health and is a speaker for Janssen Pharmaceutica and Pfizer.

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formed annually between colonoscopies, can identify patients who may need closer follow-up. You can do in-office FOBT or refer to a primary care physician.[25]

Cervical cancer is thought to be caused by human papilloma virus (HPV). Refer women with an intact cervix annually to a gynecologist or hospital clinic for a Pap smear, which usually includes testing for high-risk HPV if atypical cells are discovered. Some guidelines suggest decreasing screening frequency after several negative Pap smears for women in a monogamous sexual relationship.

Breast cancer affects 1 in 8 women, and having a first-degree relative with breast cancer increases the risk. Women should receive annual mammograms starting at age 40. The USPSTF notes that mammography's benefits improve with increasing age between ages 40 and 70.[26]

Many hospital radiology departments or community health centers provide mammograms on a rotating schedule. Refer patients with abnormal findings to a general surgeon or breast center.

CASE CONTINUED: TESTING BEGINS

We schedule a battery of laboratory tests for Mrs. J at the local hospital, including a fasting plasma glucose test and lipid profile to gauge her cardiovascular risk and potential effects from olanzapine, and CBC and LFTs to check for adverse effects from oxcarbazepine.

Box 2

How to effectively coach patients who resist preventive care

Check with patients at each visit to ensure they are following through on their test referrals. If they are not, find out why.

If the patient is procrastinating, try to uncover an underlying cause. If the patient says he or she is pressed for time, ask: "Are you going through stressful life events? Are you afraid the test will hurt or will reveal a serious disease? Did you have this test before? If so, did it make you uncomfortable?

Tell the patent, "I understand your concerns, but this test is important. You need to make it a higher priority." To work through the patient's resistance, start by educating him or her about preventable chronic diseases and screening or treatment resources. Then try problem-solving techniques, motivational interviewing, or dissecting cognitive distortions.

Collaboration with a case manager is key when managing an indigent mentally ill patient. Open communication, setting well-defined goals, and a clear understanding of each other's treatment roles is crucial. Inform the case manager which target tasks, tests, or appointments the patient has agreed to. The case manager can use this information to help the patient navigate the health care system and encourage full participation in care

Finally, build a referral base for indigent and uninsured patients. Look for a nearby internist, gastroenterologist, and OB/GYN who accept uninsured patients.

We ask Mrs. J whether she engages in high-risk sexual activity, which she denies. She cannot recall her vaccination history, so we contact the primary care physician she had seen 5 years ago. Depending on her other comorbidities, housing situation, an early pneumococcal vaccine may be indicated.

We also suggest that Mrs. J quit smoking, but she appears to be at a pre-contemplative stage.

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We hope to promote a change in her attitude by discussing smoking cessation at each visit

To address Mrs. J's obesity, we briefly review a dietary plan augmented with increased physical activity. She will bring a 3-day food diary to her next visit and promises to walk 30 minutes four to five times weekly. She says she enjoys mall walking with her children.

We strongly urge Mrs. J to schedule a mammogram, as she is past age 50 and says she has never received one. We try to refer her to a primary care physician to arrange a Pap smear and colonoscopy, but she resists, fearing the results. With continued education, exploration, and encouragement, we will briefly follow up with Mrs. J at each visit to ensure that she gets these needed tests (*Box 2, page 84*).

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Some psychiatric patients go years without crucial preventive care and testing for cardiovascular risk, infectious diseases, medication effects, obesity, and cancer. As the primary physician for many mentally ill patients, you can improve their overall health by watching for risk factors and referring them for needed tests.

Bottom Line

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