

## **Medical Co-Morbidity and Schizophrenia**

### **In this module, participants will learn to:**

- 1) Understand the interplay between psychotic illness processes and risk factors for cardiac and respiratory conditions.**
- 2) Begin to assess how patient and caregiver education on preventative cardiac care may impact individuals.**

### **Questions for Discussion:**

After completion of the film’s credits, ask the questions which appear below. After each question you will see points to amplify and develop during the discussion.

- 1. What are the principle medical risks facing people like Millie?**
- 2. What barriers exist to quality medical care for persons like Millie?**

### **TEACHING POINTS:**

The increasing recognition that there is a fundamental connection between mind/brain and body has led to a research base that documents increased medical risks for people with schizophrenia and other major mental illnesses. A complex interaction of biologic predisposition, lifestyle choices, self-medication, side effects of newer medications and inconsistent medical care contribute to this risk profile. Medical caregivers are in an excellent if time-pressured position to offer screening and counseling related to these medical risks.

## **I. HEARTS AND MINDS: INCREASED RISK FOR CARDIAC MORTALITY**

Cardiovascular risks are particularly salient for this population. A 2000 study in the Massachusetts Department of Mental Health (DMH) found highly elevated risk of cardiovascular death in the DMH population of persons with severe and persistent mental illnesses. The most common psychiatric diagnoses in these studies were schizophrenia and bipolar illness. People have increased risk for morbidity and mortality from cardiovascular problems as early as age 30, and the risk is persistently elevated across the life span. The relative risk of cardiovascular death was 4 to 6 times higher for the DMH population compared to the Massachusetts age-matched population. It was not possible to identify which common risk factors were more pronounced in the DMH population, but there are many plausible contributing 'suspects', and as they are added together, the risk to the individual becomes progressively greater.

A brief review of common cardiovascular risks and how schizophrenia can interact with them:

### **a. SMOKING**

Research shows smoking helps to address the memory deficits associated with schizophrenia, which is a core deficit in the disorder for most individuals. In this way smoking serves a "self medication" function. Smoking for some also has antidepressant and anti-anxiety effects, at least in the short term. Nicotinic receptors activated by smoking have become the focus of research into the mechanism of psychosis as a result of this finding. Research has also shown motivated people with schizophrenia can reduce and quit smoking, particularly with the support of a group and nicotine replacement treatment and in some cases bupropion (Wellbutrin/Zyban).

### **b. DIABETES**

Newer atypical anti-psychotic agents (for example: Clozapine/Clozaril, Olanzapine/ Zyprexa, Risperidone/Resperdal, Quetiapine/Seroquel, Ziprezone/ Geodon, Aripirazole/Abilify) have recently been given a "black box" warning by the FDA because of an association with diabetes in people taking these compounds. This risk is thought to be mostly, though not entirely, explained by weight gain leading to type 2 diabetes, which occurs in association with the compounds. The American Diabetes Association (ADA) and American Psychiatric Association (APA) wrote Consensus Guidelines on this important topic. This risk exists on top

of a pre-existing risk for diabetes that accompanies schizophrenia--this may be the result of central endocrinologic dysregulation. Preventive strategies related to nutrition and exercise are a key part of the approach to people who face this increased risk.

### **c. OBESITY**

People with schizophrenia are at substantially higher risk for obesity, even before anti-psychotics are introduced. This is likely to be multi-factorial as obesity is an interface of psychology, behavior and physiology. The newer anti-psychotic compounds have been shown to increase risk of weight gain in varying amounts--this is an important consideration as concern about weight gain is now cited as the number one reason for non-adherence to medication regimens. A family history of weight problems or diabetes should be considered when prescribing medications, as the risks of weight gain vary between the compounds. The ADA/APA Consensus Guidelines review the relative risk of weight gain for each of these compounds. People often respond to physician recommendations to exercise.

### **d. ALCOHOL ABUSE / DEPENDENCE**

The mental health field has been slow to appreciate the common co-occurring use of alcohol and other drugs as drivers for psychiatric and medical morbidity and mortality. It is now known in the mental health field that about half the patients with severe psychiatric illness abuse or are dependent upon alcohol or drugs. Service changes are slowly evolving to deal with substance abuse by those with mental illnesses. Whether the underlying cause is self medication, escape, or deficits in judgment varies from person to person, but this use is thought to be a key contributor to cardiovascular risk. The difficulty in integrating services is also seen from the substance use end of the spectrum: some AA groups encourage people to stop all psychiatric medicines as part of their pledge to sobriety—obviously, this is a grave threat for people with severe mental illnesses. The choice of support groups should be carefully considered-- patients should shop for one that meets all their needs, as many are less dogmatic about the use of psychiatric medications. Some locations have "Double Trouble" groups that emphasize adherence to psychiatric treatment and sobriety.

#### **e. STRESS AND DEPRESSION**

Clinical depression has been cited as an independent risk factor for cardiovascular morbidity. People with schizophrenia have an elevated risk of clinical depression. A depressive episode often follows for people after their first few psychotic episodes when they come to realize what they have lost. Also, those with schizo-affective disorder have mood dysregulation as part of their illness process and so have increased risk for depressive episodes, and depression commonly accompanies the stress of having schizophrenia. For many people with these illnesses the difficulties in engaging and sustaining supportive relationships compounds their risk as relationships have been shown to reduce stress and the impact of depression.

#### **f. NUTRITION**

People with schizophrenia are typically poor. Poverty commonly correlates with poor nutrition. Difficulties in planning and carrying out tasks complicate efforts to shop for and cook healthy, budget conscious foods. Additionally, the service system has been slow to highlight nutritional and wellness oriented strategies for people with serious mental illnesses. Fortunately, there is increasing recognition that some psychiatric treatments may compound this nutritional risk, including elevating triglyceride levels. Proper nutrition and dietary counseling must be better integrated into our mental health culture. This is an area where primary caregivers can lead the way, as they are well versed in advocating healthy lifestyle choices to the general population.

#### **g. LACK OF EXERCISE**

Negative symptoms of schizophrenia such as lack of motivation can lead to severely limited exercise. Fortunately, Drop-in centers and Clubhouses are taking a leadership role in promoting activity across the country and this has helped the mental health service system move towards a wellness perspective in serving people with mental illnesses. Physicians are leaders in this area, and over the years have increasingly embraced their role as promoters of exercise. Studies show that when they do advise people to exercise it has an impact.

#### **h. ACCESS TO CARDIAC INTERVENTION**

Benjamin Druss, MD has demonstrated that mentally ill people are less likely to

get access to angiogram and angioplasty procedures following a myocardial infarction. He concludes that deficits in the quality of medical care correlate with increased mortality for this population. This raises questions about how our medical care system works for people who present behavioral challenges, and challenges medical providers to examine their attitudes towards people with severe mental illnesses.

## **II. INCREASED RISK OF INFECTIOUS DISEASE**

### **a. HIV/AIDS**

People with major mental illnesses have a higher rate of HIV infection than the general population, and may, due to difficulties with cognition, need much more support to take antiviral therapies. Simple preventive teaching strategies are essential to reduce the rate of infection for this at-risk population. An important aspect of this risk is a particular vulnerability of some women with mental illness, particularly with co-occurring substance abuse, to be sexually victimized. Another study showed that a substantial subset of sexually active individuals with schizophrenia have traded sex for money or goods, obviously increasing their risk of contracting HIV. Younger and more impaired people had more partners and therefore were exposed to more risk.

### **b. HEPATITIS C**

Dubbed the silent epidemic, Hepatitis C is a growing concern for people with schizophrenia and is often contracted through sex and/or drug use, much like HIV. Hep C can cause serious complications in the liver's ability to metabolize medications, making drinking alcohol even riskier, and can lead to many long-term problems, including liver failure and liver cancer. New cutting edge treatments are emerging for Hep C, but these have a complex risk/benefit assessment. They can cause depression and suicidal feelings and so must be used with great caution in this population.

## **III. PROVIDING RESOURCES**

Because mentally ill people can be challenging to communicate with, some insurance plans allow extra time and compensation for these patients. In addition to your efforts in primary care settings, resources for people with schizophrenia to

address co-morbid health problems can be found at clubhouses and drop-in centers. In many states, a person does not need eligibility into the state's department of mental health to access cardiovascular education and support through these avenues.

*Hearts and Minds* is a videotape and brochure project illustrating that people with major mental illnesses can improve their lifestyle choices while staying connected to their service system. In the video, real people with schizophrenia and other illnesses discuss their efforts to address the risk factors discussed above. It can be accessed at [www.nami.org](http://www.nami.org)

#### **IV. MODELS FOR BETTER PSYCHIATRIC CARE INTEGRATION**

As stated in the President's New Freedom Commission's Report (2004), the American health care system is "fragmented and in disarray." Mental health care is "carved out" as a distinct network from primary care and the rest of specialty care. This often has negative effects on the provision of mental health care and can serve as a service barrier to referrals from the primary care office. This separation has a history in the "asylum" component of traditional inpatient state hospital care--removed from society and medicine--but also more recently in cost-containment strategies and managed care. Mental health services have been among the most privatized and managed of medical services, but there have been efforts to integrate medical and mental health care. An excellent review of the problem and possible models to promote more integrated care is found at the Judge Bazelon Center's website (see References).

## **References**

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