HIV and Delirium

What is delirium?

Delirium is a generic name for a common mental state with multiple possible causes. As many as 30% to 40% of hospitalized HIV+ people with advanced illness (AIDS) are at increased risk for developing delirium. Unlike dementia, delirium usually occurs fairly quickly and an individual is brought to the hospital because of an obvious change in mental status.

A delirious person has a confused relationship to the environment, and the confusion waxes and wanes. S/he may seem to go in and out of a disoriented state, showing confusion about time of day and location (believing s/he is at home rather than in a hospital), misinterpreting the physical environment (seeing certain objects as things they clearly are not), and even experiencing hallucinations and illusions. Behavioral disturbances such as agitation and aggression are common.

Delirium generally develops rapidly over a short period of time (usually hours to days) and fluctuates throughout the day. Delirium, if left untreated, can lead to stupor, coma, and even death. Mortality can be as high as 20%. It is considered a medical emergency. Finding the cause(s) of a delirium can be lifesaving.

What are the signs of delirium?

Delirium is characterized by changes in alertness or cognition and an inability to concentrate or process external stimuli. Delirium can cause rapid and unpredictable shifts from one emotional state to another. Someone having problems with the sleep-wake cycle, including daytime sleepiness, nighttime agitation, and disturbances in sleep continuity should be evaluated for delirium. Emotional disturbances, such as anxiety, fear, depression, irritability, anger, euphoria, and apathy should also trigger an assessment.

Delirium often brings with it changes in energy level. Delirium subtypes that affect psychomotor activity include "hyperactive" (or agitated, hyperalert), and "hypoactive" (lethargic, hypoalert) or "mixed" delirium.

In the days before onset of delirium, a patient may experience restlessness, anxiety, irritability, distractibility or sleep disturbances. These prodromal signs usually develop into full-blown delirium within one to three days.

Why are people with advanced HIV disease (AIDS) at highest risk?

A number of factors make people with AIDS A number of factors make an HIV+ person with advanced disease (AIDS) especially vulnerable to delirium. First, delirium generally occurs in the medically ill, and is more likely with severe illness. Many HIV-related brain illnesses and most HIV medications can also cause delirium. Moreover, two subtypes of delirium, substance intoxication delirium and substance withdrawal delirium may be more prevalent in people with HIV.

In some cases, complications of the central nervous system (CNS)—including psychiatric syndromes, delirium, seizures and cognitive impairment—may be the result of antiretroviral drugs that penetrate the CNS. Zidovudine and efavirenz, both of which are used to treat CNS complications because of their ability to penetrate the "blood-brain barrier," are themselves associated with potentially significant neuropsychiatric complications.

How common is delirium?

Delirium is the most common neuropsychiatric diagnosis in hospitalized or critically ill HIV+ patients. The rates of delirium in HIV+ patients are estimated to range from 43% to greater than 65% in late-stage AIDS.

What causes it?

Delirium in HIV+ people with advanced illness (AIDS) can be caused by any number of factors in combination including metabolic abnormalities, sepsis, hypoxemia, anemia, CNS infections and malignancies, almost all HIV-related drugs, opioids, and illicit substances. Initial HIV infection may also cause delirium.

Any time a patient is diagnosed with delirium s/he should be given a full neurodiagnostic workup to exclude various general medical complications associated with HIV infection.

How is delirium diagnosed?

The major challenge in diagnosing delirium is to distinguish delirium from dementia. This is especially true when treating people with advanced HIV disease (AIDS) because HIV-related dementia is so prevalent. Delirium has an abrupt onset, in a matter of hours, while dementia must have memory problems with decreased functioning for at least one month.

A clinician must differentiate delirium from dementia and also determine whether a patient has delirium alone, or has delirium superimposed on dementia. It is also important to distinguish delirium from other psychiatric conditions, including depression, hypomania, and even psychosis, and to remember that a demented patient can also develop delirium.

The key to making these distinctions is to interview the patient and the patient's family, and carefully review the patient's medical history.

The basic features of delirium and dementia are compared in the table below:

Delirium	Dementia
Acute or subacute onset	Insidious onset, comes on slowly.
Lasts days to weeks	Potentially reversible
Drugs, withdrawal, or systemic illness always present.	No systemic factors are necessary for dementia to be present.
Delirium almost always worsens at night.	Dementia often worsens at night.
Hard time paying attention.	Attention is relatively unaffected.
Personal appearance may be slovenly.	Appearance can be neat.
Arousal level (alertness) fluctuates from lethargy to agitation.	Arousal level normal.
Orientation invariably impaired, almost always regarding time.	Orientation impaired as disease progresses.
Thought processes disorganized, hallucinations and illusions common.	Thought processes impoverished, delusions common.
Language dysathric, slow, often poorly coherent and inappropriate.	In speaking, patient may exhibit nominal amnesia; less often aphasia.
Sleep-wake rhythms irregular; often excessive napping.	Noctural sleep commonly interrupted.
Memory confused—immediate, long- and short-term all impaired.	Recent memory lost; remote memory impaired, but can be intact in early stages.
Adapted from a chart appearing in the Merck Manual, 16th edition	

How is delirium treated?

The first priority in treating delirium is to address the underlying cause (hypoxemia, medications, etc). Disorientation and other symptoms of delirium can be treated with antipsychotic medications as tolerated by the patient. Delirious patients are managed in the hospital, usually with constant observation, because of the ever-changing aspect of this illness and to reduce external stimuli.

Delirium is a frightening experience for the patient and for family and friends. Every effort should be made to repeatedly reassure and re-orient the patient, explaining procedures and establishing a calm and constant environment. Providing a clock that the patient can easily see, and keeping the patient's room well-lighted during the day are helpful strategies to encourage orientation.

Following recovery, all patients who have experienced delirium should be educated about the apparent cause of their delirium (when it can be identified) so that the patient, family, and subsequent physicians can be made aware of risk factors that may lead to delirium in the future. Psychotherapy focused on working through the experience of the delirium may, at times, be necessary to resolve anxiety, guilt, anger, depression, or other emotional states.

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About this Fact Sheet

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