



# HIV and Delirium

### What is delirium?

A delirious person has a confused relationship to the environment, and that confusion waxes and wanes. The patient may seem to go in and out of a disoriented state, showing confusion over time of day and location (believing 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 follows a fluctuating course over 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 life saving.

### What are the signs of delirium?

A person who is 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 can cause rapid and unpredictable shifts from one emotional state to another.

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 AIDS at highest risk?

A number of factors make people with AIDS especially vulnerable to delirium. First, delirium occurs frequently in the medically ill and is more likely

when a patient's illness is more severe. Many HIV-related brain illnesses and most HIV related drugs can also cause delirium. Moreover, two subtypes of delirium, substance intoxication delirium and substance withdrawal delirium may be more prevalent in people with HIV. Finally, HIV-Associated Dementia, a common complication of AIDS, predisposes patients to dementia.

### How common is delirium?

Delirium is the most common neuropsychiatric diagnosis in hospitalized or critically ill HIV -1 infected patients. Estimates of rates of delirium in HIV patients range from 43% to greater than 65% in late-stage AIDS.

### What causes it?

Delirium in people living with 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 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 in distinguishing delirium from dementia. This is especially true when treating people with AIDS because HIV-related dementia is so prevalent. A clinician must differentiate delirium from dementia and must also determine whether a patient has delirium alone, or has delirium superimposed on dementia. The key to making those distinctions is in interviewing the patient, the patient's family, and in careful review of the patient's medical history. Delirium has an abrupt onset in a matter of hours, while dementia must have memory problems with decreased functioning for at least one month. The basic features of delirium and dementia are compared in the chart below.



It is also important to distinguish delirium from other psychiatric conditions, including depression, hypoma-

<b>Delirium</b>	<b>Dementia</b>
Onset is acute or subacute.	Onset is insidious, 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 nocturnally.
Attention poorly maintained.	Attention is relatively unaffected.
A delirious person's appearance may be slovenly.	The patient's 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; napping often excessive.	Nocturnal sleep commonly interrupted.
Memory Confused— immediate, long- and short-term all impaired.	Recent memory lost; remote memory impaired, but in early stages can be intact.

*Adapted from a chart appearing in the Merck Manual, 16<sup>th</sup> edition*

nia, and even psychosis. It is important to remember that a demented patient can also develop delirium.

### **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.

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 this could 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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