



**Medical
Blueprints**

DELIRIUM OR DEMENTIA: KNOW THE DIFFERENCE REPORT #2815

BACKGROUND: Dementia is a progressive decline in memory and at least one other cognitive area like attention, orientation, judgment, abstract thinking, and personality. Dementia is rare in under 50 years of age and the incidence increases with age. In order to make a diagnosis of dementia, delirium must be ruled out. However, patients with dementia are at increased risk of delirium and may have both. Delirium is an acute disorder of attention and global cognition (memory and perception) and is treatable. The diagnosis is missed in more than 50% of cases. The risk factors for delirium include age, pre-existing brain disease, and medications. There are many causes like dementia; electrolyte disorders; infection; prescription drugs; injury, pain, or stress; and unfamiliar environment. Prevention of delirium includes the avoidance of psychoactive drugs, quiet environment, daytime activity, dark and quiet at night, visual and hearing assistive devices, orientation devices, and avoidance of restraints.

(Source: <https://www.hopkinsmedicine.org/gec/series/dementia.html>)

COVID AND DELIRIUM: With COVID cases again increasing, a symptom of the virus, delirium, is gaining new notice. One study reports between 20 to 30% of hospitalized COVID patients develop delirium while another study indicates as many as 70% of critically ill patients are affected. There are two types of delirium. Hyperactive delirium is the overactive form in which a patient can be aggressive and restless, sometimes suffering delusions or hallucinations. Hypoactive delirium is the underactive form in which patients may appear sleepy, slow to respond, withdrawn, and not communicating with others. According to neurocritical care specialist Pravin George, DO, Cleveland Clinic, one cause of delirium in COVID patients could be a lack of oxygen because of how the virus attacks the lungs. Another cause could be the body's reaction to the virus. "Inflammation caused by the way the body's immune system overreacts to the virus could block blood to a patient's brain," says Dr. George.

(Source: <https://health.clevelandclinic.org/coronavirus-symptom-delirium/>)

A POSSIBLE NEW DRUG: The FDA will decide early this year, based on its own analysis of clinical trial data and an advisory panel's review of the evidence, whether aducanumab will be approved for use in Alzheimer's patients. Aducanumab is a monoclonal antibody engineered in a lab to stick to the amyloid molecule that forms plaques in the brains of people with Alzheimer's. Most researchers believe the plaques form first and damage brain cells, causing tau tangles to form inside them, ultimately killing the cells. Once aducanumab has stuck to the plaque, your body's immune system will come in and remove the plaque. The hope and expectation is once the plaques are removed, the brain cells will stop dying, and thinking, memory, function, and behavior will stop deteriorating. If this works, aducanumab would be the first drug that actually slows down the progression of Alzheimer's. That means we could turn Alzheimer's from a fatal disease into one that people could live with for many years. And for researchers, it means that more than 20 years of scientific work, suggesting that removing amyloid from the brain can cure Alzheimer's, may be correct.

(Source: <https://www.health.harvard.edu/blog/a-new-alzheimers-drug-from-advisory-panel-to-fda-whats-at-stake-here-2020111221380>)

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