

## 1. Name: Anticholinergic

### ➤ Effect:

An anticholinergic agent is a substance that blocks the action of the neurotransmitter acetylcholine at synapses in the central and the peripheral nervous system. These agents inhibit parasympathetic nerve impulses by selectively blocking the binding of the neurotransmitter acetylcholine to its receptor in nerve cells. The nerve fibers of the parasympathetic system are responsible for the involuntary movement of smooth muscles present in the gastrointestinal tract, urinary tract, lungs, and many other parts of the body. Anticholinergics are divided into three categories in accordance with their specific targets in the central and peripheral nervous system: antimuscarinic agents, ganglionic blockers, and neuromuscular blockers.

### ➤ Usage:

- Medical uses
- Recreational uses

### ➤ Subject affect:

Anticholinergic drugs are used to treat a variety of conditions:

- Dizziness (including vertigo and motion sickness-related symptoms)
- Extrapyrarnidal symptoms, a potential side-effect of antipsychotic medications.
- Gastrointestinal disorders (e.g., peptic ulcers, diarrhea, pylorospasm, diverticulitis, ulcerative colitis, nausea, and vomiting)
- Genitourinary disorders (e.g., cystitis, urethritis, and prostatitis)
- Insomnia, although usually only on a short-term basis
- Respiratory disorders (e.g., asthma, chronic bronchitis, and chronic obstructive pulmonary disease [COPD])
- Sinus bradycardia due to a hypersensitive vagus nerve

### ➤ Side effect:

Possible effects of anticholinergics include:

- Poor coordination
- Dementia
- Decreased mucus production in the nose and throat; consequent dry, sore throat
- Dry-mouth with possible acceleration of dental caries
- Cessation of sweating; consequent decreased epidermal thermal

dissipation leading to warm, blotchy, or red skin

- Increased body temperature
- Pupil dilation; consequent sensitivity to bright light (photophobia)
- Loss of accommodation (loss of focusing ability, blurred vision – cycloplegia)
- Double-vision
- Increased heart rate
- Tendency to be easily startled
- Urinary retention
- Urinary incontinence while sleeping
- Diminished bowel movement, sometimes ileus (decreases motility via the vagus nerve)
- Possible effects in the central nervous system resemble those

Associated with delirium, and may include:

- Confusion
- Disorientation
- Agitation
- Euphoria or dysphoria
- Respiratory depression
- Memory problems
- Inability to concentrate
- Wandering thoughts; inability to sustain a train of thought
- Incoherent speech
- Irritability
- Mental confusion (brain fog)
- Wakeful myoclonic jerking
- Unusual sensitivity to sudden sounds
- Illogical thinking
- Photophobia
- Visual disturbances
- Periodic flashes of light
- Periodic changes in visual field
- Visual snow[citation needed]
- Restricted or "tunnel vision"
- Visual, auditory, or other sensory hallucinations
- Warping or waving of surfaces and edges
- Textured surfaces

- "Dancing" lines; "spiders", insects; form constants
- Lifelike objects indistinguishable from reality
- Phantom smoking
- Hallucinated presence of people not actually there
- Rarely: seizures, coma, and death

➤ Precautions:

Older patients are at a higher risk of experiencing CNS side effects.

Orthostatic hypotension (severe drop in systolic blood pressure when standing up suddenly) and significantly increased risk of falls in the elderly population.

Increased intraocular pressure; dangerous for people with narrow-angle glaucoma.