Psychiatric Disorders
Secondary to Medical Conditions
According to the Diagnostic and Statistical Manual of Mental Disorders, the psychiatric presentation of a medical condition can be defined as “the presence of mental symptoms that are judged to be the direct physiological consequences of a general medical condition.”

Evaluation of patients who present with altered behavior can often be difficult and at times may lead to pre-mature psychiatric diagnosis.

The failure to identify the medical cause of psychiatric symptoms can be potentially dangerous because serious and frequently reversible diseases often get overlooked.
Features of Medical Origin

The following features suggest a medical origin for psychiatric symptoms:

> Late Onset of Initial Presentation
> Known Underlying Medical Condition
> Atypical Presentation of a Specific Psychiatric Diagnosis
> Absence of Personal and Family History of Psychiatric Illnesses
> Illicit Substance Abuse
> Medication Use
> Treatment Resistance or Unusual response to Treatment
> Sudden Onset of Symptoms
> Abnormal Vital Signs
> Waxing and Waning Mental Status
# Medical Disorders that can Induce Psychiatric Symptoms

## Medical and Toxic Effects
- Alcohol
- Cocaine
- Marijuana
- Phencyclidine (PCP)
- Lysergic acid diethylamide (LSD)
- Heroin
- Amphetamines
- Jimson weed
- Gamma-hydroxybutyrate (GHB)
- Benzodiazepines
- Prescription drugs

## Central Nervous System
- Subdural hematoma
- Tumor
- Aneurysm
- Severe hypertension
- Meningitis
- Encephalitis
- Normal-pressure hydrocephalus
- Seizure disorder
- Multiple sclerosis

## Infectious
- Pneumonia
- Urinary tract infection
- Sepsis
- Malaria
- Legionnaire disease
- Syphilis
- Typhoid
- Diphtheria
- Human immunodeficiency virus (HIV)
- Rheumatic fever
- Herpes

## Metabolic/Endocrine
- Thyroid disorder
- Adrenal disorder
- Renal disorder
- Hepatic disorder
- Wilson disease
- Hyperglycemia
- Hypoglycemia
- Vitamin deficiency
- Electrolyte imbalances
- Porphyria

## Cardiopulmonary
- Myocardial infarction
- Congestive heart failure
- Hypoxia
- Hypercarbia

## Other
- Systemic lupus erythematosus
- Anemia
- Vasculitis

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# Mental Disorders

## Due to a General Medical Condition

<table>
<thead>
<tr>
<th>DSM-IV-TR Category</th>
<th>Mental Disorders Due to a General Medical Condition</th>
</tr>
</thead>
<tbody>
<tr>
<td>Delirium, dementia, amnestic and other cognitive disorders</td>
<td>Delirium due to a general medical condition</td>
</tr>
<tr>
<td></td>
<td>Dementia due to other general medical conditions</td>
</tr>
<tr>
<td></td>
<td>Amnestic disorder due to a general medical condition</td>
</tr>
<tr>
<td>Schizophrenia and other psychotic disorders</td>
<td>Psychotic disorder due to a general medical condition</td>
</tr>
<tr>
<td>Mood disorders</td>
<td>Mood disorder due to a general medical condition</td>
</tr>
<tr>
<td>Anxiety disorders</td>
<td>Anxiety disorder due to a general medical condition</td>
</tr>
<tr>
<td>Sexual disorders</td>
<td>Sexual dysfunction due to a general medical condition</td>
</tr>
<tr>
<td>Sleep disorders</td>
<td>Sleep disorder due to a general medical condition</td>
</tr>
<tr>
<td>Mental disorders due to a general medical condition not elsewhere classified</td>
<td>Catatonic disorder due to a general medical condition</td>
</tr>
<tr>
<td></td>
<td>Personality change due to a general medical condition</td>
</tr>
<tr>
<td></td>
<td>Mental disorder not otherwise specified due to a general medical condition</td>
</tr>
</tbody>
</table>
Mood Disorder due to Obstructive Pulmonary Disease (COPD)

DUE TO GENERAL MEDICAL CONDITION

1. A prominent and persistent disturbance in mood predominates in the clinical picture and is characterized by either (or both) of the following:
   a) Depressed mood or markedly diminished pleasure in all, or almost all, activities
   b) Elevated, expansive, or irritable mood.

2. There is evidence from the history, physical examination, or laboratory findings that the disturbance is the direct physiological consequence of a general medical condition.

3. The disturbance is not better accounted for by another mental disorder (e.g., adjustment disorder with depressed mood in response to the stress of having a general medical condition).

4. The disturbance does not occur exclusively during the course of a delirium.

5. The symptoms cause clinically significant distress or impairment in social, occupational, or other important areas of functioning.
Mood Disorder
DUE TO GENERAL MEDICAL CONDITION

> **Specifiers:**

> **With depressive features:** if the predominant mood is depressed, but the full criteria are not met for a major depressive disorder

> **With major depressive-like episode:** if all criteria for major depressive episode are met, except, clearly, for the criterion that the symptoms are not due to the physiological effects of a substance or a general medical condition

> **With manic features:** if the predominant mood is elevated, euphoric, or irritable

> **With mixed features:** if the symptoms of mania and depression are present, but neither predominates
Psychotic Disorder
Due to a General Medical Condition

1. Prominent hallucinations or delusions.
2. There is evidence from the history, physical examination, or laboratory findings that the disturbance is the direct physiological consequence of a general medical condition.
3. The disturbance is not better accounted for by another mental disorder.
4. The disturbance does not occur exclusively during the course of a delirium.

> Specifiers:

> With delusions: if delusions are the predominant symptom

> With hallucinations: if hallucinations are the predominant symptom
## Psychotic Symptoms

Due to a General Medical Condition

<table>
<thead>
<tr>
<th>Symptoms</th>
<th>Site</th>
<th>Laterality</th>
</tr>
</thead>
<tbody>
<tr>
<td>First-rank symptoms</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Thoughts spoken aloud</td>
<td>Temporal lobe</td>
<td>Dominant hemisphere</td>
</tr>
<tr>
<td>• Voices commenting</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Third-person voices arguing</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Made actions</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Made feelings</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Thought withdrawal</td>
<td></td>
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<tr>
<td>• Thought diffusion</td>
<td></td>
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<tr>
<td>• Delusional perception</td>
<td></td>
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<tr>
<td>Complex delusions</td>
<td>Subcortical or limbic</td>
<td></td>
</tr>
<tr>
<td>Anton syndrome</td>
<td>Occipital lobe, optic tract</td>
<td>Bilateral</td>
</tr>
<tr>
<td>Anosognosia</td>
<td>Parietal lobe</td>
<td>Non-dominant hemisphere</td>
</tr>
<tr>
<td>Misidentification syndromes</td>
<td>Parietal, temporal, frontal lobe</td>
<td>Non-dominant hemisphere, bilateral</td>
</tr>
<tr>
<td>Capgras syndrome</td>
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<tr>
<td>Reduplicative par amnesia</td>
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<tr>
<td>Fregoli syndrome</td>
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<tr>
<td>Intermetamorphosis syndrome</td>
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</tbody>
</table>
Anxiety Disorder
DUE TO A GENERAL MEDICAL CONDITION

1. Prominent anxiety, panic attacks, or obsessions or compulsions predominate in the clinical picture.

2. There is evidence from the history, physical examination, or laboratory findings that the disturbance is the direct physiological consequence of a general medical condition.

3. The disturbance is not better accounted for by another mental disorder (e.g., adjustment disorder with anxiety in which the stressor is a serious general medical condition).

4. The disturbance does not occur exclusively during the course of a delirium.

5. The disturbance causes clinical significant distress or impairment in social, occupational, or other important areas of functioning.
Anxiety Disorder
DUE TO A GENERAL MEDICAL CONDITION

Specifiers:

> With generalized anxiety: if excessive anxiety or worry about a number of events or activities predominates in the clinical presentation

> With panic attacks: if panic attacks predominate in the clinical presentation

> With obsessive and compulsive symptoms: if obsessions or compulsions predominate in the clinical presentation
Sleep Disorder
Due to a General Medical Condition

1. A prominent disturbance in sleep that is sufficiently severe to warrant independent clinical attention.

2. There is evidence from the history, physical examination, or laboratory findings that the sleep disturbance is the direct physiological consequence of a general medical condition.

3. The disturbance is not better accounted for by another mental disorder (e.g., an adjustment disorder in which the stressor is a serious medical illness).

4. The disturbance does not occur exclusively during the course of a delirium.

5. The disturbance does not meet the criteria for breathing-related sleep disorder or narcolepsy.

6. The sleep disturbance causes clinically significant distress or impairment in social, occupational, or other important areas of functioning.
Sleep Disorder
Due to a General Medical Condition

Specify type:

> **Insomnia type:** if the predominant sleep disturbance is insomnia

> **Hypersomnia type:** if the predominant sleep disturbance is hypersomnia

> **Parasomnia type:** if the predominant sleep disturbance is a parasomnia

> **Mixed type:** if more than one sleep disturbance is present and none predominate of comparable sexual dysfunction that was not substance-induced
Medical Conditions Commonly Associated with a Secondary Sleep Disorder

<table>
<thead>
<tr>
<th>Condition</th>
<th>Sleep Symptoms</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parkinsonism</td>
<td>Frequent awakenings, disturbance of circadian rhythms</td>
</tr>
<tr>
<td>Dementia</td>
<td>Sundowning, frequent awakenings</td>
</tr>
<tr>
<td>Epilepsy</td>
<td>Difficulty initiating sleep, frequent awakenings, parasomnias</td>
</tr>
<tr>
<td>Cerebrovascular disease</td>
<td>Difficulty initiating sleep, frequent awakenings</td>
</tr>
<tr>
<td>Huntington’s disease</td>
<td>Frequent awakening</td>
</tr>
<tr>
<td>Kleine-Levin syndrome</td>
<td>Hypersomnia</td>
</tr>
<tr>
<td>Uremia</td>
<td>Restless legs, nocturnal myoclonus</td>
</tr>
</tbody>
</table>
Diagnostic Criteria for Personality Change
DUE TO A GENERAL MEDICAL CONDITION

1. A persistent personality disturbance that represents a change from the individual’s previous characteristic personality pattern. (In children, the disturbance involves a marked deviation from normal development or a significant change in the child’s usual behavior patterns lasting at least 1 year.)

2. There is evidence from the history, physical examination, or laboratory findings that the disturbance is the direct physiological consequence of a general medical condition.

3. The disturbance is not better accounted for by another mental disorder (including other mental disorders due to a general medical condition).

4. The disturbance does not occur exclusively during the course of a delirium.

5. The disturbance causes clinically significant distress or impairment in social, occupational, or other important areas of functioning.
Diagnostic Criteria for Personality Change

DUE TO A GENERAL MEDICAL CONDITION

Specify type:

- **Labile type**: if the predominant feature is affective lability
- **Disinhibited type**: if the predominant feature is poor impulse control as evidenced by sexual indiscretions, etc.
- **Aggressive type**: if the predominant feature is aggressive behavior
- **Apathetic type**: if the predominant feature is marked apathy and indifference
- **Paranoid type**: if the predominant feature is suspiciousness or paranoid ideation
- **Other type**: if the presentation is not characterized by any of the above subtypes
- **Combined type**: if more than one feature predominates in the clinical picture
- **Unspecified type**

- **Coding note**: Include the name of the general medical condition on Axis I, e.g., Personality change due to temporal lobe epilepsy; also code the general medical condition on Axis III.
Sexual Dysfunction
DUE TO GENERAL MEDICAL CONDITION

1. Clinically significant sexual dysfunction that results in marked distress or interpersonal difficulty predominates in the clinical picture.

2. There is evidence from the history, physical examination, or laboratory findings that the sexual dysfunction is fully explained by the direct physiological effects of a general medical condition.

3. The disturbance is not better accounted for by another mental disorder (e.g., major depressive disorder).
Sexual Dysfunction
DUE TO A GENERAL MEDICAL CONDITION

> Select code and term based on the predominant sexual dysfunction:
> **Female hypoactive sexual desire disorder due to a [insert general medical condition here]:** if deficient or absent sexual desire is the predominant feature.
> **Male hypoactive sexual desire disorder due to a [insert general medical condition here]:** if deficient or absent sexual desire is the predominant feature.
> **Male erectile disorder due to a [insert general medical condition here]:** if male erectile dysfunction is the predominant feature.
> **Female dyspareunia due to a [insert general medical condition here]:** if pain associated with intercourse is the predominant feature.
> **Male dyspareunia due to a [insert general medical condition here]:** if pain associated with intercourse is the predominant feature.
> **Other female sexual dysfunction due to a [insert general medical condition here]:** if some other feature is predominant (e.g., orgasmic disorder) or if no feature predominates.
> **Other male sexual dysfunction due to a [insert general medical condition here]:** if some other feature is predominant (e.g., orgasmic disorder) or if no feature predominates.
Causes of Secondary Sexual Dysfunctions

Medications
> Cardiac drugs, antihypertensive
> H₂-receptor blockers
> Carbonic anhydrase inhibitors
> Anticholinergic
> Anticonvulsants (e.g., carbamazepine, phenytoin, pyrimidine)
> Antipsychotics
> Antidepressants (e.g., tricyclic drugs, MAO inhibitors, trazodone, SSRIs)
> Sedative-hypnotics

Substances of abuse
> Alcohol
> Opioids
> Stimulants
> Cannabis
> Sedative-hypnotics
Causes of Secondary Sexual Dysfunctions

Local disease processes that affect primary or secondary sexual organs

- Congenital anomalies or malformations
- Trauma
- Tumor
- Infection
- Postsurgical or post irradiation local neurological and vascular pathology

Systemic disease processes

- Neurological
- Central nervous system (e.g., strokes, multiple sclerosis)
- Peripheral nervous system (e.g., peripheral neuropathy)
- Vascular
- Atherosclerosis, vasculitis (as examples)
- Endocrine
- Diabetes mellitus, alterations in function of thyroid, adrenal cortex, gonadotropins, gonadal hormones (as examples)
Catatonic Disorder
DUE TO A GENERAL MEDICAL CONDITION

1. The presence of catatonia as manifested by motoric immobility, excessive motor activity (that is apparently purposeless and not influenced by external stimuli), extreme negativism or mutism, peculiarities of voluntary movement, or echolalia or echopraxia.
2. There is evidence from the history, physical examination, or laboratory findings that the disturbance is the direct physiological consequence of a general medical condition.
3. The disturbance is not better accounted for by another mental disorder (e.g., a manic episode).
4. The disturbance does not occur exclusively during the course of a delirium.

Coding note: Include the name of the general medical condition on Axis I, e.g., Catatonic disorder due to hepatic encephalopathy; also code the general medical condition on Axis III.
Diagnostic Considerations

> Before attributing symptoms to a psychiatric disorder, all medical conditions need to be investigated and ruled out for causation.

> A general physical examination and blood tests should be performed by a PCP prior to or in addition to a psychiatric consultation.
References

