Acute confusional syndrome

**Characteristics**
- **Acute confusional syndrome (ACS)** is a clinical pathology of rapid onset (hours or days) and fluctuating course (usually improving during the day and worsening at night). Clinically it presents with **altered levels of consciousness** in the form of hypopacitivity (lethargy) or hyperactivity (agitation), and with **cognitive disorders** such as attention deficit disorder, altered sleep-wake rhythms, and temporal and spatial disorientation.
- **The origin** is most often organic. If the cause is treated, it is usually reversible, but may have lasting after-effects in the form of permanent cognitive defects.

**Etiology**

<table>
<thead>
<tr>
<th>Type</th>
<th>Cause</th>
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| Systemic      | - Metabolic: hypoglycemia; uremia; dehydration; altered Na⁺, Ca²⁺, K⁺, and phosphorus; acidosis; alkalosis; hypoxemia; hypercapnia; porphyria; vitamin deficits  
|               | - Immunologic: systemic lupus erythematosus, anaphylaxis, vasculitis  
|               | - Infectious: anemia, polycythemia                                     
|               | - Cardiologic: heart failure, myocardial infarction, arrhythmia, pulmonary embolism  
|               | - Endocrinologic: thyroid dysfunction, panhypopituitarism, hypo-and hyperparathyroidism, Cushing’s, Addison’s  |
| Deprivation   | Alcohol, benzodiazepines, cocaine, heroin                              |
| Drug-related  | Benzodiazepines, digoxin, anticonvulsants, corticosteroids, drugs with anticholinergic effects (antidepressants, antispasmodics, anti-Parkinson’s, antihistaminic) |
| Neurologic    | Head trauma, hydrocephalus, meningitis, encephalitis, stroke, tumor, abscess |

**Evaluation and management**
- **Therapeutic measures** must be taken simultaneously with the relevant studies to identify the precipitating factor.
- **Environmental support measures**: adequate lighting, noise removal, repeated and concise communication with the patient about where he/she is, the time, and the identity of those accompanying him/her.
- **Complementary tests** (after medical history and physical examination):
  - **Digital blood glucose tests**.
  - **CBC and biochemistry** with urea, creatinine, ions.
  - **O₂ saturation**: if <90%, request arterial blood gasometry and administer O₂ at 2 L/min.
  - **Blood and urine culture**: if there is fever.
  - **Cranial CT**: if there is a neurological source or a history of trauma.
  - **Spinal puncture**: if there is fever and the source has not been identified.
  - **Thyroid hormones, folic acid, B₁₂, determination of toxics, EEG** if cause is unknown.
- **Treatment**: Suspension of possible precipitating drugs and iv administration of fluids.

<table>
<thead>
<tr>
<th>Generic name</th>
<th>Brand name/®</th>
<th>Dose</th>
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<tbody>
<tr>
<td>Thiamine</td>
<td>BENERVA solution 100</td>
<td>100 mg 30 min iv</td>
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<tr>
<td>Cefotaxime</td>
<td>CLAFORAN</td>
<td>1 g/6 h/iv if the patient has fever</td>
</tr>
<tr>
<td>Haloperidol</td>
<td>HALOPERIDOL oral drops HALOPERIDOL Sol inj 5 mg</td>
<td>1 mL (2 mg)/8 h qd 5 mg/6 h iv or im</td>
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<tr>
<td>Midazolam</td>
<td>DORMICUM 7.5 mg tablets DORMICUM 5 mg solution</td>
<td>7.5 mg qd 2.5 mg iv slowly</td>
</tr>
<tr>
<td>Clomethiazole</td>
<td>HEMINEVRIN 300 mg capsules</td>
<td>300 mg before bedtime</td>
</tr>
<tr>
<td>Tiapride</td>
<td>TIAPRIZAL</td>
<td>100-200 mg/oa/day (in cases of hypoventilation)</td>
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</table>
Drug management of ACS

If the integrity of the patient is compromised or if there is difficulty in making diagnosis

**Haloperidol 2.5 mg/iv bolus**

After 30 min: agitation persists or difficult to manage

**Haloperidol 5 mg/iv bolus**

After 30 min: agitation persists or difficult to manage

**Haloperidol 10 mg/iv bolus**

After 30 min: agitation persists or difficult to manage

**Midazolam 2.5 mg iv**

From this time on, after 30 min, alternate doses of Haloperidol and Midazolam

Improvement in symptoms

**Haloperidol**

mg total previously used in 500 mL of saline at a rate of 21 mL/h/24 hours. On day 2, reduce dose by 50%