

STOP!

Serotonin syndrome (SS) also known as Serotonin Toxicity is a potentially life-threatening drug-induced condition caused by increased serotonergic activity in the brain's synaptic clefts.*

COMMON DRUGS CAUSING SS

- **Antidepressants:**
e.g. SSRI, SNRI, TCA, MAOI
- **Analgesics:**
e.g. Tramadol, OTC preparations
- **Antiemetics:**
e.g. Ondansetron, Metoclopramide
- **Recreational:** e.g. Cocaine, MDMA

THE TRIAD OF SS

1. **Altered mental status:** e.g. Agitation, Confusion, Decreased GCS
2. **Autonomic hyperactivity:**
e.g. Tachycardia, Fever and Flushing, Dry mucous membranes, hyper or Hypotension
3. **Neuromuscular abnormality:**
e.g. Tremor, Hyperreflexia, Myoclonus, Shivering

LOOK

In patients presenting in the context of an increased dose, overdose or suspected drug interaction involving any serotonergic agent, **serotonin syndrome is likely if any of the following are found:**

- Spontaneous clonus
- Tremor WITH hyperreflexia
- Ocular or inducible clonus AND agitation, sweating or hypertonia WITH fever

THINK OF OTHER DIFFERENTIALS

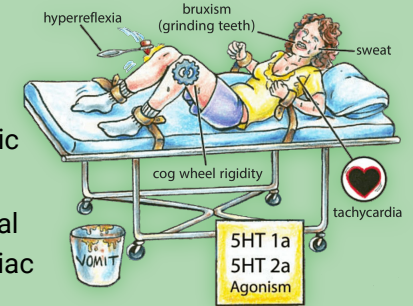
1. **Other toxidromes**
e.g. Anticholinergic toxicity
2. **Sepsis**
3. **Hyperthermia syndromes**
e.g. Neuroleptic malignant syndrome, Malignant hyperthermia
4. **Thyrotoxicosis**

THERE IS A RISK OF DEATH DUE TO HYPERPYREXIA CAUSING MULTIORGAN FAILURE

LEARN

MANAGEMENT**

1. Consult TOXBASE
2. Stop all serotonergic agents
3. Monitor vital signs, cardiac monitor
4. 12-lead ECG
5. Bloods: e.g. VBG, FBC, U&E, LFT, Coag, CK
6. Supportive treatments: e.g. IV fluids
7. Agitation: consider Benzodiazepines, e.g. Diazepam or Midazolam
8. Hyperthermia: e.g. fan, ice packs



Kloss & Bruce <http://bit.ly/389xaVF>

REMEMBER! The differential diagnosis for agitation, e.g. Hypoxia, Hypoglycaemia. In severe cases of SS consider the use of Cyproheptadine and Chlorpromazine as per TOXBASE. **Most mild cases of SS resolve within 24 hours.**

REFERENCES

- * <http://bit.ly/2S7Uu0t> (Patient.Info)
- ** <http://bit.ly/2H53m0I> (TOXBASE)