

Serotonin Syndrome

PLT 25th January 2017

By Dr James Mills



Serotonin Syndrome

No test available it is a symptom based diagnosis.

Wide range of symptoms and signs.

Symptoms

- Anxiety
- Agitation
- Panic attacks
- Confusion

Signs

- Tachycardia
- Shivering
- Myoclonus
- High blood pressure



Drugs involved

Anti depressants

- TCAs
- SSRIs
- SNRIs
- Trazodone
- Mirtazapine
- Plus others

Opioids

- Tramadol
- Pethidine
- Oxycodone
- Buprenorphine
- Fentanyl
- Plus others

5 HT antagonists

- Triptans

Antipsychotics

- Olanzapine



Use medicines information

Serotonin Syndrome

Serotonin toxicity (increase in CNS 5HT efflux*)	CNS excitation	Mental state	Autonomic excitation	Typical cause
Severe (10-100x)	Rigidity, respiratory failure	Coma Confusion	Severe hyperthermia	MAOI plus SSRI combination
Moderate (5-10x)	Opsiclonus, sustained clonus, myoclonus, tremor	Agitation	Mydriasis, flushing, diaphoresis, low fever ($<38.5^{\circ}\text{C}$)	SSRI overdose
Mild (3-5x)	Inducible clonus, hyper-reflexia	Anxiety	Hypertension, tachycardia	Ecstasy use
($<3x$)	Brisk reflexes	Insomnia	Nausea, diarrhoea	SSRI in therapeutic use

CNS = central nervous system; 5HT = 5-hydroxytryptamine; MAOI = monoamine oxidase inhibitor;
SSRI = selective serotonin reuptake inhibitor

*Approximate extent of increase in CNS 5HT efflux seen with animal models