

**FAST FACTS AND CONCEPTS #61
USE OF PSYCHO-STIMULANTS IN PALLIATIVE CARE**

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Background More than 95% of patients experience fatigue near the end of life. Chemotherapy, radiation, and administration of opioids all tend to increase tiredness. Depression is also a common cause of suffering at the end of life; about 25% of cancer patients with early stage disease develop depression, in advanced illness more than three-quarters of all patients have symptoms of depression. See also *Fast Fact #259* on modafinil.

Uses of Psycho-stimulants Both fatigue and depression can be treated with one of the psycho-stimulants: dextroamphetamine, methylphenidate, or pemoline. Psycho-stimulants act rapidly and are well-tolerated. These medications have 6 potentially beneficial effects for patients with terminal illness:

- Mood elevation: a Cochrane analysis suggested that psychostimulants significantly reduce symptoms of depression, but long term efficacy is not established.
- Improved energy: a meta-analysis showed a small benefit of psychostimulants for cancer related fatigue and demonstrated little adverse effects.
- Potentiate analgesic effect of opioids
- Counter opioid-induced sedation
- Increase appetite
- Improve cognition

Practical Tips For depression, psycho-stimulants are the drug of choice for patients with a relatively short life expectancy of weeks to months because they act quickly, usually within 24-48 hours. Psycho-stimulants are generally safe. However, they should be used with caution in patients with heart disease or cognitive disturbances (e.g. delirium). Pemoline, a milder psycho-stimulant, can rarely cause hepatotoxicity, requiring regular monitoring of hepatic function. Some patients with severe depression and a longer life expectancy benefit from starting a psycho-stimulant and then transitioning to a selective serotonin reuptake inhibitor anti-depressant (SSRI). Psycho-stimulants are also useful to augment the action of SSRIs in patients with severe depression.

Drug	Onset of action	Starting dose	Usual Daily Dose	Maximal Daily Dose	Schedule
Dextroamphetamine, Methylphenidate	<24hrs <24hrs	2.5-5 mg 2.5 mg	10-20 mg 5-10 mg	60-90mg 60-90mg	8am and noon*
Pemoline	1-2 days	18.75mg	37.5mg	150mg	Twice daily

*some patients may need a late afternoon booster dose (usually ½ the am dose)

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