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## ARMODAFINIL (Nuvigil) Fact Sheet [G]

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### Bottom Line:

Armodafinil is an effective wake-promoting agent with some potential for abuse and for drug interactions. It lasts a bit longer than modafinil.

### FDA Indications:

**Excessive sleepiness associated with obstructive sleep apnea, narcolepsy, or shift-work sleep disorder.**

### Off-Label Uses:

ADHD; fatigue; treatment-resistant depression.

### Dosage Forms:

**Tablets (G):** 50 mg, 150 mg, 200 mg, 250 mg.

### Dosage Guidance:

- Obstructive sleep apnea or narcolepsy: 150–250 mg QAM.
- Shift-work sleep disorder: 150 mg QD, one hour before start of work shift.

**Monitoring:** No routine monitoring recommended unless clinical picture warrants.

**Cost:** \$

### Side Effects:

- Most common: Headache, nausea, dizziness, insomnia, anxiety, irritability.
- Serious but rare: Serious rash, including Stevens-Johnson syndrome, multi-organ hypersensitivity reaction, angioedema, and anaphylaxis reported rarely. Rare cases of mania, psychosis, and agitation reported.
- Pregnancy/breastfeeding: Risk for major malformations, not recommended in pregnancy; not enough data in breastfeeding to recommend.

### Mechanism, Pharmacokinetics, and Drug Interactions:

- Dopamine reuptake inhibitor.
- Metabolized primarily by non-CYP450 liver pathways, but also to some degree by CYP3A4;  $t_{1/2}$ : 15 hours.
- Duration of action about eight hours.
- Potentially induces CYP1A2 and 3A4 and inhibits 2C19. Avoid concomitant use with steroidal contraceptives (hormone levels may be decreased due to 3A4 induction) and with CYP2C19 substrates (eg, omeprazole, phenytoin, diazepam); levels of these medications may be increased.

### Clinical Pearls:

- Armodafinil is, as the name implies, the r-modafinil enantiomer (modafinil is a 1:1 mixture of both r- and s-enantiomers).
- Schedule IV controlled substance due to abuse potential, mostly for euphoric and stimulant-like effects.
- Increased heart rate and blood pressure may occur, particularly in patients who don't suffer from excessive sedation or fatigue and when used at higher doses.

### Fun Fact:

In 2010, the FDA declined to approve use of Nuvigil to treat jet lag.