



QUEEN'S UNIVERSITY DEPARTMENT OF ANESTHESIOLOGY

Subject: Perioperative Management of Monoamine Oxidase Inhibitors (MAOI)

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Trade Name

Parnate
Nardil
Manerix

Generic Name

Tranlycypromine
Phenelzine
Moclobemide

Introduction:

The classic MAOI, phenelzine and tranlycypromine, irreversibly inhibit MAO for 2 to 3 weeks until new enzyme is synthesized.¹ Moclobemide, a reversible inhibitor of MAO-A (RIMA) causes enzyme inhibition for less than 24 hours.^{2,3} Due to potential drug interactions, discontinuation of classic MAOI 2 to 3 weeks before surgery has been recommended¹ and suitability of these patients for ambulatory anesthesia has been controversial.

Reactions to meperidine (including agitation, hyper/hypotension, convulsions, hyperthermia, and coma.³) have been described for all MAOI^{1,4,5} and RIMA^{2,3} medications. Cocaine also may cause excitatory reactions.⁶ Patients may have an exaggerated response to indirect-acting sympathomimetics as long as 3 weeks after classic MAOI are discontinued.¹ Regarding RIMA's, a patient taking moclobemide had a normal response to both phenylephrine and ephedrine after omitting the morning dose.² Vasopressors at concentrations contained in local anesthetics are not likely to be significantly potentiated in otherwise healthy patients on an MAOI.¹¹

Multiple case reports describe using a variety of general and regional anesthetic techniques for patients on MAOIs without complications⁷⁻¹⁵. Withdrawal of MAOI 2 weeks prior to elective surgery is not without risks and acute exacerbation of depression with suicidal ideation has been reported.¹⁷

Although adverse drug interactions are possible and have been reported in a minority of patients on MAOI, a wide range of anesthetic agents

has been described that permit the safe administration of anesthesia. Therefore, patients taking either classic or selective MAOI are suitable for ambulatory anesthesia without discontinuing their MAOI preoperatively if careful attention is paid to their anesthetic management.

Policy:

1. Patients taking MAOIs may continue taking their medication throughout the perioperative period.
2. Meperidine, cocaine and indirect-acting catecholamines should be avoided in these patients.

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