

## Selegiline Transdermal System: In the Treatment of Major Depressive Disorder

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During the decade that spanned the late 1950s to the late 1960s, the clinical common sense view was that there were two types of patient with medication-responsive depression: those who needed a tricyclic antidepressant (TCA); and those who needed a monoamine oxidase (MAO) inhibitor. Thereafter, use of MAO inhibitors declined sharply when it was discovered that they had a potentially fatal hypertensive interaction with foods with high tyramine content. As such, the vast majority of potential MAO inhibitor responders over the last 35 years have not been prescribed their medication of choice.

TCAs have subsequently been refined into selective serotonin and, more recently, mixed serotonin-norepinephrine reuptake inhibitors, which are associated with fewer adverse effects and are vastly safer in overdose than TCAs; these medications now completely dominate the antidepressant drug market. While this has represented a welcome development for the potential TCA responder, it is unclear whether there has been any benefit to the potential MAO inhibitor responder (for whom the mechanism of increased intraneuronal monoamine stores may

be more beneficial than the mechanism of reuptake inhibition). Despite published evidence of MAO inhibitor therapy being more effective than serotonin and norepinephrine reuptake inhibition in several common depressive subtypes (atypical depression,<sup>[1]</sup> anergic bipolar depression<sup>[2]</sup> and treatment-resistant depression<sup>[3]</sup>), only 0.1% of all antidepressant prescriptions in the US in 2005 were for an MAO inhibitor.<sup>[4]</sup>

However, with the advent of the selegiline transdermal system, which removes the necessity for tyramine dietary restrictions at the lowest (and typically target) dosage and greatly lightens the burden of adverse events that often accompany therapy with older MAO inhibitors, it seems quite possible that a substantial portion of depressed patients who need an MAO inhibitor will now be able to receive one. ▲

## References

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