

VBlock Antinausea Drug*

The Food and Drug Administration is about to approve Vblock as a safe and effective antinausea drug. Your job is to determine the appropriate price range. The value of antinausea drugs for post-surgical use is quite high for two reasons. One source of value is clinical - vomiting while the patient is under anesthesia can cause the patient to choke and have other serious complications. The second source of value is purely economic - the quicker patients' postsurgical nausea can be brought under control, the quicker they can be removed from the recovery room. The charge for use of the recovery room is \$150/hour. Without the use of an antinausea drug, time in the recovery room would be approximately three hours. With current antinausea drugs, the time in recovery can be reduced by one-third.

Vblock is no more effective in reducing nausea than the current substitutes, the most popular of which is Nobarf, which sells for \$12 per dose. However, because Vblock works through a different biological process, it offers advantages to this market that the substitutes do not:

- There is no interaction between Vblock and other drugs that the patient might be given. Approximately 30% of all surgeries require other drugs with which Nobarf and other antinausea drugs could interact, thus precluding their use. Consequently, the patient is at risk of postsurgical nausea and must be kept in recovery for the full three hours. Because Vblock works differently (on the gage reflex in the brain), it does not interact with other drugs and so can be used in all types of surgery.
- Nobarf needs to be administered before surgery and hourly thereafter. The typical surgery requires three separate doses of Nobarf. Vblock, however, is administered only once (before surgery). Its action continues for at least six hours. This is important for hospitals, since the cost of storing and administering a drug, in addition to the cost of the drug itself, is approximately \$10/dose.
- While Nobarf has a sedative effect, contributing to postsurgical patients' feeling sleepy and disoriented, Vblock has no sedative effect. Consequently, controlled studies have confirmed that patients receiving Vblock spend an average of 20 minutes less time in the recovery room when compared with patients receiving the current antinausea drugs.

What is the relative economic value of Vblock in the surgical market?