



Drug Monitor

Levonorgestrel Added to DoD Basic Core Formulary

All U.S. military health facilities will now carry the emergency contraception pill levonorgestrel (Plan B One-Step, Duramed Pharmaceuticals, Inc, Cincinnati, OH). This decision was based on a recommendation from the DoD's Pharmacy & Therapeutics (P&T) Committee—a suggestion that was previously rejected in 2002.

In 2006, the FDA approved Plan B to be sold without a prescription, prompting the DoD to add the drug to its Uniform Formulary, a list of drugs that are covered by TRICARE but are optional for military medical treatment facilities (MTFs) to keep in stock. Last fall, the P&T Committee voted 13 to two to add levonorgestrel to the Basic Core Formulary, a list of drugs that must be carried at all full-service MTFs—including bases in Iraq and Afghanistan. Under current DoD policy, female service members who become pregnant while serving in a war zone are removed immediately and sent back to the United States.

Levonorgestrel works by preventing ovulation or fertilization and does not allow a fertilized egg to embed into the uterus and start a pregnancy. This drug has incited much controversy between antiabortion advocates and abortion rights groups. The former argue that use of the drug amounts to “legal abortion” (the ability of MTFs to perform abortion is limited by law) and warn that compelling military providers to offer the drug may cause those who object to the concept of emergency contraception to leave the military. The National Institutes of Health, however, has emphasized that the drug will not end an existing pregnancy, and Planned Parenthood

President Cecile Richards has said her group “applaud[s] the Pentagon for ensuring that [female service members] and spouses of military personnel stationed around the world will have access to the same basic reproductive health care available to women in the United States.” The DoD does not recommend using levonorgestrel as a primary form of birth control and notes that all MTFs carry other contraception options, including condoms and birth control pills.

Sources: CNN news article. February 5, 2010. <http://www.cnn.com/2010/US/02/05/military.morning.after.pill/index.html>.

Army Times news article. http://www.armytimes.com/benefits/health/military_emergency_contraception_bases_021610w/.

Morphine Use After Combat Injury

Multiple studies have suggested such drugs as opiates, anxiolytics, and beta-adrenergic antagonists may help reduce or prevent the symptoms of posttraumatic stress disorder (PTSD) after major trauma by impeding memory consolidation and the conditioned response of fear. Now, researchers from the Naval Health Research Center, San Diego, CA have found the use of morphine after serious combat-related injury to be associated with a significantly reduced risk of PTSD.

Using the U.S. Navy–Marine Corps Combat Trauma Registry Expeditionary Medical Encounter Database (CTR EMED), the researchers identified 696 U.S. service members injured in Iraq between January 2004 and December 2006 who had complete medication-related data available. Of these, 243 were diagnosed with PTSD from one to 24 months after the date of injury—61% of whom

had received morphine during resuscitation and trauma care. Of the 453 patients who did not develop PTSD, 76% had received morphine. The use of morphine directly after injury was associated significantly with a reduced risk of PTSD (odds ratio, 0.47; $P < .001$). This association persisted even after adjustment for injury severity, mechanism of injury, presence of mild traumatic brain injury, amputation status, intubation status, and use of benzodiazepines.

The researchers found no evidence that morphine's effects were dose dependent. PTSD was diagnosed in 40% of patients who received low doses of morphine (2 mg to 9 mg), 40% of those who received moderate doses (10 mg to 20 mg), and 23% of those who received high doses (greater than 20 mg).

The researchers cite other studies that have found opiates to protect against PTSD. One study reported that giving morphine to children with burn injuries significantly protected against PTSD six months after hospitalization. Another found a significant association between self-reported pain level and PTSD symptom severity in adults with trauma. The researchers conclude from these findings that “a reduction in perceived pain levels through the use of morphine or other opiates as part of trauma care may lower the rate of PTSD onset after major trauma.”

Source: *N Engl J Med*. 2010;362(2):110–117.