## **Appropriate Use of Doxycycline During Drug Shortage**

Drug shortages are always a challenging barrier to overcome in caring for patients. Currently, doxycycline, a commonly prescribed antibiotic, is in short supply. This shortage has been ongoing since January 2013 and is worsening. The Centers for Disease Control and Prevention is urging health care professionals to only prescribe this medication when no other alternative is available. The list of indicated uses with no alternative includes: treatment of rickettsial infections, prophylaxis against Lyme disease following a tick bite, and prophylaxis and treatment of malaria "according to the standard recommendations." Several other antibiotic options exist for many conditions commonly treated with doxycycline, such as sexually transmitted infections, and these alternatives should be considered first. Amoxicillin and cefuroxime axetil are alternatives for the treatment of Lyme disease, although they may not be as effective as doxycycline. Treatment alternatives for malaria include quinine, quinidine, clindamycin, mefloquine, and choroquine. Doctors must use clinical judgment and consider the benefit to risk on a patient specific basis to decide if doxycycline is necessary.

To prevent further shortages and price increases in doxycycline, a combined effort is needed among health care professionals. Physicians should only prescribe doxycycline when other options do not exist, or when it is clearly the superior therapy. Pharmacists need to verify the clinical indication for doxycycline prescriptions presented at the pharmacy by calling the physician and should recommend therapeutic alternatives when appropriate. Calling to verify prescriptions will also help educate unaware physicians about the current drug shortage. Planning ahead to minimize the impact of this drug shortage is extremely important until manufacturing issues have been resolved. This will ensure patients receive the best care and have continued access to doxycycline when needed.

## References:

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