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Treatments for dry eye disease: A comparison analysis

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Description: The purpose of this meeting is to examine and discuss the evidence-based comparisons of the current treatments for Dry Eye Disease (DED).

Introduction: Dry Eye Disease (DED) affects up to 30% of the global population (2.25 Billion people) and this inflammatory condition of ocular surfaces has symptoms of visual disturbances, eye discomfort, tear film instability, etc. In the United States the average cost of treating this anomaly is over \$6,500 with incidence rate of up to 20 million patients. This meeting will discuss three primary treatments of Cyclosporine 5%, Lixtegrast, and studies showing significance and differences between these treatments. A recent Systematic Review with meta-analysis was conducted on studies of Topical Cyclosporine 5% (Restasis Allergan, Inc., Irvine, CA). The 12 studies (mean 25 weeks) included 629 subjects receiving treatment of Restasis. The outcome measure shared between these studies was the Schirmer #1 test and the mean score reduction was 2.7mm. A retrospective controlled study was conducted, measuring efficacy of Lixtegrast (Xiidra® Shire, Inc. Lexington, MA) versus other treatments in over 2,000 eyes. The mechanism of action is different than Cyclosporine because Lixtegrast reduces ocular inflammation as an integrin antagonist that blocks binding of ICAM-1 to LFA-1 on the T-cell surfaces. Testing in this investigation was accomplished with Schirmer's tests, Corneal staining, and tear film Break Up Time (tBUT) in different sub populations. Even with different testing mechanisms, these Lixtegrast patients showed significant changes, particularly in short-term follow ups.

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