

SAMPLE

WILDERNESS MEDICAL SOCIETY
ABSTRACT FORM
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Instructions for Abstract Preparation

The abstract should be word processed, using MS Word, in 12-point Times New Roman font. The title should be in bold. **List authors' full names with middle initials and degrees. List authors' affiliations with a limit of one affiliation per author.** The body of the abstract should be no more than 300 words and must be limited to the space of this page. Do not include references, illustrations, funding sources, tables, or figures. Abstracts should include a brief introduction describing the background for the research, the objectives, methods, results, and conclusion. An example abstract is shown below.

The Effects of a 5-Lipoxygenase Inhibitor on Acute Mountain Sickness and Urinary Leukotriene E4 After Ascent to High Altitude

Colin K. Grissom, M.D.¹, Lori D. Richer, M.D.², and Mark R. Elstad, M.D.³

¹LDS Hospital and the University of Utah, Salt Lake City, Utah

²Dartmouth Family Practice Residency, Concord Hospital, Concord, New Hampshire

³University of Utah and the Department of Veteran's Affairs Medical Center, Salt Lake City, Utah

Elevated urine and blood leukotriene levels have been reported after ascent to high altitude in association with acute mountain sickness (AMS) and high altitude pulmonary edema (HAPE). Zileuton is an inhibitor of the enzyme 5-lipoxygenase that catalyzes conversion of arachidonic acid to leukotrienes.

The objectives of this randomized double-blind placebo-controlled clinical trial were to determine whether zileuton (600 mg orally four times a day) is effective prophylaxis for AMS and to measure the effect of ascent to high altitude and zileuton on urinary leukotriene E4 levels.

The study group consisted of volunteers from among climbers on the West Buttress of Mt. McKinley (Denali), Alaska. After baseline urine samples at sea level, subjects flew by airplane to 2300 m, and then ascended to the 4200 m camp in 5 to 10 days.

Using an enzyme immunoassay, urinary leukotriene E4 was found to decrease after ascent to high altitude in both the zileuton and placebo groups. Urinary leukotriene E4 in the zileuton group (n=9) decreased from 67 ±35 pg/mg creatinine at sea level to 33 ±22 pg/mg creatinine at high altitude (p=0.003). Urinary leukotriene E4 in the placebo group (n=9) decreased from 97 ±82 pg/mg creatinine at sea level to 44 ±21 pg/mg creatinine at high altitude (p=0.045). One subject in the zileuton group and 3 subjects in the placebo group met Lake Louise criteria for AMS after arriving at 4200 m (p=0.257).

Elevated leukotrienes are not associated with ascent to high altitude. In subjects with AMS urinary leukotrienes were not elevated, suggesting that leukotrienes may not be a component of the pathophysiology of AMS. The low incidence of AMS and the small sample size in this study prevented determination of whether zileuton is effective prophylaxis for AMS.