## **Food and Drug Administration**

Center for Drug Evaluation and Research (CDER)

## Arthritis Advisory Committee June 2, 2004

### **Questions to the Committee**

- I. Please discuss the utility of serum uric acid as a surrogate marker for the chronic treatment of gout.
  - If it is an appropriate surrogate, what level of serum uric acid or amount of change in serum uric acid level would be considered adequate evidence of efficacy?
  - Would an analysis comparing the mean change in serum uric acid level for the treatment populations adequately reflect efficacy?
  - Would an analysis comparing the number of individuals in each treatment arm reaching a prespecified level or amount of change adequately reflect efficacy?
  - Are there advantages to choosing an analysis of either the uric acid levels at last visit or the uric acid levels over time (based on the area under the curve)?
  - Does the choice of a surrogate as the efficacy endpoint influence the decision of what is considered acceptable risk?
- II. For a drug to be approved for the treatment of hyperuricemia associated with gout, what additional information besides uric acid levels are important to collect?
  - Please discuss the clinical endpoints of a reduced number of gout attacks and decreased size of tophi in trials of uric acid lowering drugs.
  - Are there preferred methods for measuring tophi (i.e. exam or imaging)?
  - Is there more value in evaluating either the absolute number of gout attacks or the relative reduction in number of attacks?
- III. Individuals with gout may demonstrate a broad range of uric acid levels.
  - Please discuss the range of uric acid levels that would reflect meaningful inclusion or exclusion criteria.
  - Are there any advantages to recruiting patients with uric acid in a specified range such as 8-12 mg/dL (representing similar total body load of uric acid)?
  - Please discuss whether there a rationale for studying individuals with values of uric acid over 12 mg/dL.
  - Is there value in stratifying patients by uric acid level?
- IV. Patients with gout may have renal insufficiency.
  - Discuss the value of including or excluding such patients in clinical trials.
  - If they are to be included, what range of serum creatinine levels would be important to consider for inclusion?

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### **Questions to the Committee (cont.)**

- V. Uric acid lowering drugs such as allopurinol are sometimes used at doses higher than those labeled.
  - Discuss the utility of studying multiples (such as 2x the highest dose) of the proposed maximum efficacious dose of a new drug.
- VI. Please discuss what could be considered an optimal duration for these trials.
- VII. Please discuss the implications of placebo vs. active controls and superiority vs. non-inferiority designs for clinical trials of uric acid lowering drugs.
  - Is there sufficient data available in the literature to establish a generally accepted response rate for allopurinol that could be used for calculating a non-inferiority margin?

VIII. Please discuss the implications of concomitant therapies.

- Can concomitant drugs such as colchicine or NSAIDs be continued during clinical trials for chronic gout?
- Please discuss the implications of permitting or prohibiting the use of concomitant diuretics or low dose ASA.
- Is there value in recommending or prohibiting a particular diet?
- Is it appropriate to restrict alcohol use?
- Please discuss issues concerning the enrollment of patients with kidney stones.
- Please discuss inclusion of heart/renal transplant patients, especially those on drugs such as cyclosporine?