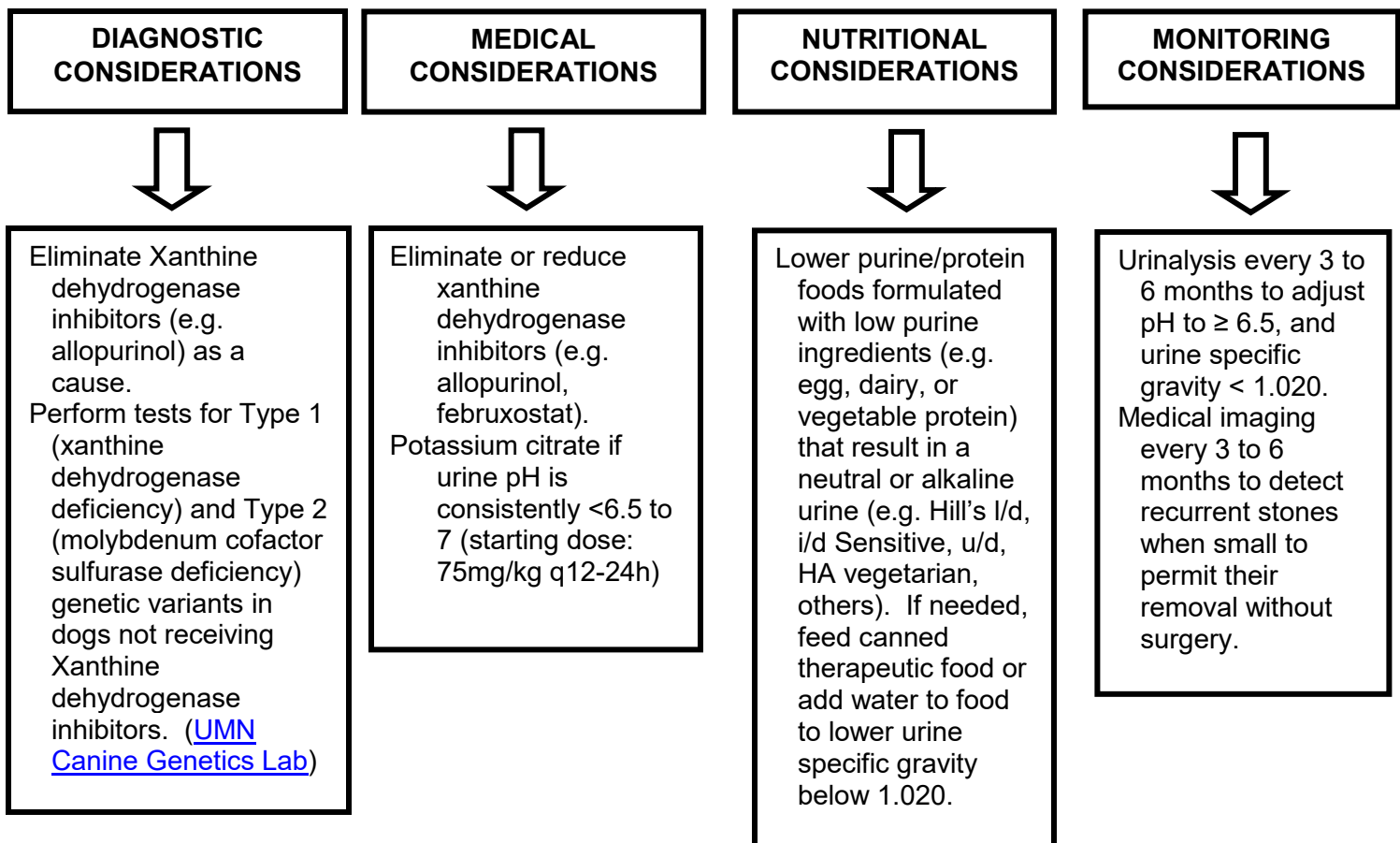




## CANINE XANTHINE

Hereditary xanthinuria is a rare autosomal recessive disorder of purine metabolism caused by mutations in xanthine dehydrogenase (Type I) or molybdenum cofactor sulfarase (Type II) genes, and causes xanthine uroliths. Breeds with hereditary xanthinuria include Toy Manchester Terrier, Cavalier King Charles Spaniel, English Cocker Spaniel, Dachshund, Chihuahua, and mixed breed dogs. Xanthine uroliths can also develop as an adverse consequence of xanthine dehydrogenase inhibitors (allopurinol), especially when given in higher doses and without dietary purine/protein reduction.

### MINIMIZING RECURRENCE



\*\* Review manufacturer's therapeutic food literature to determine indications/contraindications. For pets with multiple health concerns, consult a veterinary nutritionist to select an optimal food.