Grape Toxicity:

Very little is known regarding grape toxicity in dogs. It causes acute renal failure in dogs and the pathphysiology is unclear. Possibilities include contamination of grapes with mold toxins such as ochratoxins, present of high amounts of vitmamin D3 or similar compounds, contamination with pesticides, unknown intrinsic toxins such as the flavonoids and tannins. Toxic dose range is 14 to 57g/kg but each dog can have a different level of sensitivity to the toxin.

Clinical signs include vomiting, diarrhea, anorexia, lethargy, and abdominal pain. Can come on in 3 days to several weeks. Blood work changes include azotemia, hypercalcemia, and hyperphosphatemia. Can lead to oliguria and anuria. On histopathology can see acute renal tubular necrosis. The tubular necrosis is thought be caused either directly by the toxin or due to ischemic injury. If the basement membranes remains intact and the tubular epithelial cells remain healthy there is a good chance of tubular recovery.

Negative prognostic indicators include decreased urine out put, ataxia(trouble walking), weakenss, increased initial total calcium, increase in total calcium, increased calcium phosphorous ratio at time of presenation or increase in calcium phosphorus ratio.

Currently therapeutic recommendations include baseline kidney values, Ca and P, IV fluid diueresis, and repeating blood values.