Pretreatment of patients with tumor lysis

- Baseline labs: CMP, UA, phosphorus, LDH
- Identify individual patient risk factors

High risk
- Monitor for TLS and complications
- Daily labs to include CMP, phosphorus, calcium, LDH, and UA every 6-8 h
- Hydration: 2-3 L/m²/d (unless renal insufficiency or oliguria present)
- Single-dose rasburicase 0.1-0.2 mg/kg IV; more if needed (except in patients with G6PD)

Intermediate risk
- Monitor for TLS and complications
- Hydration: 2-3 L/m²/d
- Allopurinol prophylaxis (100-300 mg, PO, q8h, daily). If hyperuricemia develops, treat with rasburicase

Low risk
- Monitor for TLS and complications
- Normal hydration
- No prophylaxis for hyperuricemia except where signs of metabolic change, bulky and/or advanced disease and/or high proliferative disease occur (in these cases, allopurinol should be considered)

Acute TLS
- Transfer to special care unit; treat specific metabolic complications; monitor as warranted

Hyperuricemia
- Aggressive hydration for intermediate and high risk except in renal failure or oliguria
- Urine output monitored closely
- Allopurinol in intermediate risk
- In high or intermediate risk, rasburicase if allopurinol fails or if allergic to allopurinol
- Diuretics may be used where no obstructive uropathy or hypovolemia are present
- Alkalization is not warranted except in patients with signs of metabolic acidosis

Hyperkalemia
- Intervention required in >7 mEq/L (or where EKG shows widening of QRS)
  - Asymptomatic: Sodium polystyrene sulfonate
  - Symptomatic: For treatment of life-threatening arrhythmias, calcium gluconate via slow infusion can be given
- Regular insulin with glucose
- Albuterol by nebulizer

Hyperphosphatemia
- Eliminate phosphate from IV solutions, adequate hydration, phosphate binders may be utilized
- Sevelamer carbonate or calcium acetate (Titrate as needed)
- Calcium carbonate contraindicated where high calcium levels present
- Hemodialysis, peritoneal dialysis, or continuous venovenous hemofiltration

Hypocalcemia
- Calcium gluconate, administered slowly with EKG monitoring
- Careful consideration should be warranted in cases of high phosphate levels