**30S Protein Synthesis Inhibitors**

* Toxicity to tetracyclines include chelation with calcium which can affect teeth and bone formation
  + Magnesium, sodium, potassium, calcium
* Tetracyclines can cause drug induced renal Fanconi syndrome so caution in renally impaired patients
  + Renal Fanconi syndrome, renal failure, kidney stones, CKD
* Contraindicated in patients less than eight years old or pregnant
  + Diabetic, asthmatic, pregnant, lactating
* Aminoglycosides have toxicity problems such as ototoxicity and nephrotoxocity.
  + Neurotoxicity, retinal toxicity, nephrotoxicity, hepatotoxicity
* Can be deadly due to respiratory failure
  + Respiratory, renal, liver
* Prolonged exposure to aminoglycosides can cause toxic side effects so “pulse dosing” is used to give the dose once daily
  + Extended interval dosing, pulse dosing, dosing pump
* The most toxic aminoglycoside that is used therapeutically is Neomycin but it is only used topically
  + Bleomycin, Neomycin, Streptomycin
  + Orally, intravenously, topically
* Two disorders that put patients at higher risk for neurotoxicity with aminoglycosides are Myasthenia Gravis and Parkinson’s disease
  + Parkinson’s disease, epilepsy, dementia, multiple sclerosis