Plasma Cell Disorders

	MGUS	Multiple myeloma	Waldenstrom's Macroglobulinemia	Amyloidosis (1° or 2°)
		excessive production of kappa/lambda light chain	**IgM** monoclonal gammopathy	AL –monoclonal light-chain fragments AA – serum amyloid A. Assd with chronic inflammatory diseases (eg RA), infections, neoplasms
Sx	Mild sx or Asymptomatic	• Anemia + bone pain with mvt • Lethargy, wt loss • **Hypercalcemia** • **Renal failure** - Bence-Jones • **Lytic bone lesions** • **Dec anion gap** • Infxns by encapsulated bacteria • >40yo • African American 2x incidence	• Anemia + bone pain • Lethargy, wt loss • **Hyperviscosity** syndrome = stroke, retinopathy, CHF, sensorimotor peripheral neuropathy • Splenomegaly • Coagulation abnormalities • Cold agglutinin (AIHA)	
Labs		• Urine – Bence Jones • ESR >55 • Rouleaux RBCs		
Dx		**+ M spike (IgG or IgA) on SPEP or + UPEP** AND **plasma cells in bone marrow** OR **Osteolytic bone lesions** OR **Bence-jones proteinuria**	**M spike (IgM) on SPEP**	Congo red staining (apple green birefringence under polarized light) on tissue bx
Rx		Chemo – Metastatic Radiation - Isolated lesions BMT to prolong survival	Chemo Plasmaphoresis	Chemo

SCREENING FOR ADRENAL INSUFFICIENCY

Symptoms of Adenal Insufficiency **Fatigue, weight loss, low BP, eosinophelia, hyponatremia, brown bigmentation (especially in skin creases/oral mucous membranes)**		**Diagnostic Screening Tests for Adrenal Insufficiency**			
		Basal Cortisol Level (early morning)	**ACTH**	**Cortisol Response to cosyntropic**	**Origin of disease**
Result of screening test	**Primary Adrenal Insufficiency**	LOW (<5ug/dL)	HIGH	Minimal Response	Adrenal gland disease/ Addison's Disease
	Secondary or tertiary adrenal insufficiency	LOW (<5ug/dL)	LOW	Minimal or suboptimal response	Pituitary or hypothalamic disease
	Unlikely to be adrenal insufficiency	>15ug/dL		Normal response >20 ug/dL	
	Indeterminate	5-15 ug/dL			

What is cosyntropic?	Cosyntropin is an ACTH synthetic analogue.
What does this test show?	Cortisol level is measured 30-60 min to help distinguish primary AI (adrenal disease/Addison's Disease) vs. central AI (pituitary/ hypothalamic)
Why do this test?	Could make the diagnosis with cortisol and ACTH but the results of ACTH take