Iron Def ->miccy hypoch Anemia, low ferritin+iron -> find etiology first -> 6month iron + transfusin (Hb<7)

Hemolytic Anemia -> normoc normoch anemia + incr. Reticulo + high indirect bili+LDH -> Coombs -> streroids (other immunosupressiva), IVIG, Transfusin(Hb<7)

B12 Anemia -> maccy hyperch + normal Reticulo -> Lifelong B12

Thalassemia -> *severe* microcytic -> target cells + erythroblast -> electrophoresis -> transfusion hb<8

ITP -> isolated low Thrombos -> secondary causes -> steroids, IVIG, splenectomy, TPO R agonist

TTP -> hemolytic anemia + low thrombos + 2of: fever, RF, CNS + schizocytes -> ADAMTS13 -> steroids, plasma exchange, rituximab

Polycytemia vera -> Hb>16,5/16 + incr. other lines -> Jak2 mut? -> BM biopsy: trilineage hypercell (-> EPO low) => Phlebotomy, Asprin, hydroxyurea, jak2-inhib

ET -> inc. Thrombos -> rule out sec (iron def, inf, malig, myelodyspl.) -> Jak2 mut? -> BM biopsy: prolif. Megakaryocytes (-> +clonal markers/evidence of reactive) => <1,5mio<40 aspirin; <1,5mio40-60 aspirin (+-hydroxyurea); >1,5mio aspiron+hydroxurea

Primary myelofibrosis -> left shift/leucoerythroblastic pic + dacryocytes + splenomegaly -> rule out other myeloprolif. -> Jak2 mut? -> bonemarrow: myelofibrosis -> A-watch + wait; B+C-Jak2 inhib+hydroxyurea; D- Stem cell transplant (>65y, Hb<10, L>25k; Blast>1%); [Criteria: 1.Myelofibr+Prolif atypical megakaryocytes; 2.no evidence myeloprolif, myelodyspl, neoplasm; 3.Jak2 mut; Minor:::Anemia, Leukocytosis, Splenomegaly, LDH inc., Leukoerythroblasti pic

CML -> Leukocytosis+Basophils+Left Shift -> Philadelphia+(BCR-ABL) => Chronic: TKI (only cure: BM transplant); Blastic: TKI + chemo(depending if AML or ALL)

AML -> Blast>20 -> BM aspiration: blast>20%&peroxidase+ -> Immunophenotyping: Lymphoid vs. myeloid surface AG -> 7+3; isolation, hygiene, Transfusion (low Hb+Plt); Hydroxyurea, Alluprinol (prev. tumur lysis synd)

CLL -> Anemia (evtl. Hemolytic->coombs) + lymphocytosis+low Neutros + nuclear shadows -> immunophenotyping=B-cell surface AG -> BM->lymphocytes => 0,1,2 -> watch+wait; 3+4 (anemia+thrombocytopenia) -> FCR (fit<65); R-COP (unfit); TKI; young+hemolytic anemia -> steroids -> R-COP

Myelodysplastic disorders -> non regen. Anemia (no signs for classic or hemolytic) -> BM: 1. Ring sideroblasts => HB>10: nothing; Hb8-10: EPO; Hb<8 transfusion;;;; 2.Excess blast=>HB<8+Thrombos<20k transfusion; EPO+G-CSF; AB; Demethylating agents

Aplastic Anemia -> non-reg. Anemia + low Plt + low WBC + leucoerythroblastic pic -> BM aspiration: low cellularity -> BM biopsy: <30% cellularity => HB<8+Plt<20k transfusion; AB; Steroids; Stem cell (young+severe)

Multiple Myeloma -> back pain + Anemia, CRAB-signs; 1 Ig incr + hyperviscosity snd -> BM biopsy: >30% plasma cells -> Electrophoresis immunofix: Ig-chains present -> check beta2-microglobulin (staging: <3,5; >3,5; >5,5) -> xray: osteolytic lesions => BCD x6 + STEM transpl or x8 w/o SCT for 28days +++ Plasmapheresis, Rehydration/dialysis, Biophosphonates, EPO+transfusion

Waldenstrom -> Anemia + Lympocytosis + RF-signs + IgM incr. -> electrophoresis immunofix: IgM+ -> BM aspirate: Lymphoplasmocytes -> BM biopsy: confirms -> R-COP x6 (21d) ++ Plasmapheresis, IV-rehydration/dialysis, transfusion