Review Session Material for Final

A. General Hemostasis
1. Know phases of hemostasis and the order in which they occur
2. Know definitions – coagulation, hemostasis, etc.
3. Vascular system
   a. structure
   b. diagnosing a vascular problem (petechiae and purpura)
   c. what see clinically
4. primary hemostasis vs. secondary hemostasis

B. platelets
1. general information
2. zones and ultrastructure
3. different receptors, platelet factors
4. distinguish adhesion and aggregation; process of plug formation
5. know aggregation
   a. monophasic/biphasic
   b. primary wave/secondary wave – what each means
   c. patterns in various disorders
5. aspirin
6. tests
   a. PFA
   b. Ristocetin cofactor
   c. Platelet aggregation
   d. ~~other~~
7. disorders – vWD, BS, Glanzmann's, ITP, TTP, HIT
   - causes/defect
   - how diagnosed/what results look like – aggregation patterns, if applicable

C. Fibrin Formation/Fibrinolysis
1. nomenclature + families – fibrinogen, prothrombin, contact
2. know cascade – both in vivo and in vitro
3. know fibrin formation → fibrinogen to soluble fibrin monomer, etc.
4. degradation of fibrinogen and fibrin
5. how heparin and coumadin work
6. disorders of bleeding – how and when diagnosed; what lab results look like

D. Naturally Occurring Inhibitors/Regulators
- know these, plus some characteristics of each

E. Lab Testing
1. know various tests, principles, what you are measuring, what used for
2. INR/ISI
3. Factor assay
   a. primary dilution is what we report
   b. calculation of % activity based on dilution
   c. interp of dilution results
~~4. which tests have standard curves; directly or indirectly proportional~~
5. know NR for PT, PTT, fibrinogen, TT, D-Dimer

PT = 11.8-14.5s
PTT = 23.4-36.2s
Fibrinogen = 200-400mg/dL
TT = 15-20s
D-dimer = 0-200ng/mL

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6. know about heparin monitoring

F. Thrombotic disorders
1. How common are they?
2. What do we see?
3. Names and characteristics of inherited ones
4. LA – know lab testing and results
5. LA theory → how works in vivo and in vitro → what we see
6. Drugs for therapy, plus how unfractionated and LMW heparin work
7. Relate the hemostatic process to the progression of heart disease; various at-risk markers; prevalence and prevention of heart disease

G. DIC
1. Triggers
2. What lab results we would expect to see

H. Given various lab results, distinguish deficiencies, inhibitors, type of inhibitors

I. Specimen for coag testing – anticoagulant, anticoagulant/blood ratio, other aspects of the sample

J. QC – definitions, understanding, interpreting QC runs

→ plasma must be platelet poor (<10K)
- if you don't have platelet poor plasma, PF_3 could be present
- When thawed, PF_3 could neutralize LA causing a false negative
- If PF_4 was present, heparin would be neutralized causing a falsely low heparin