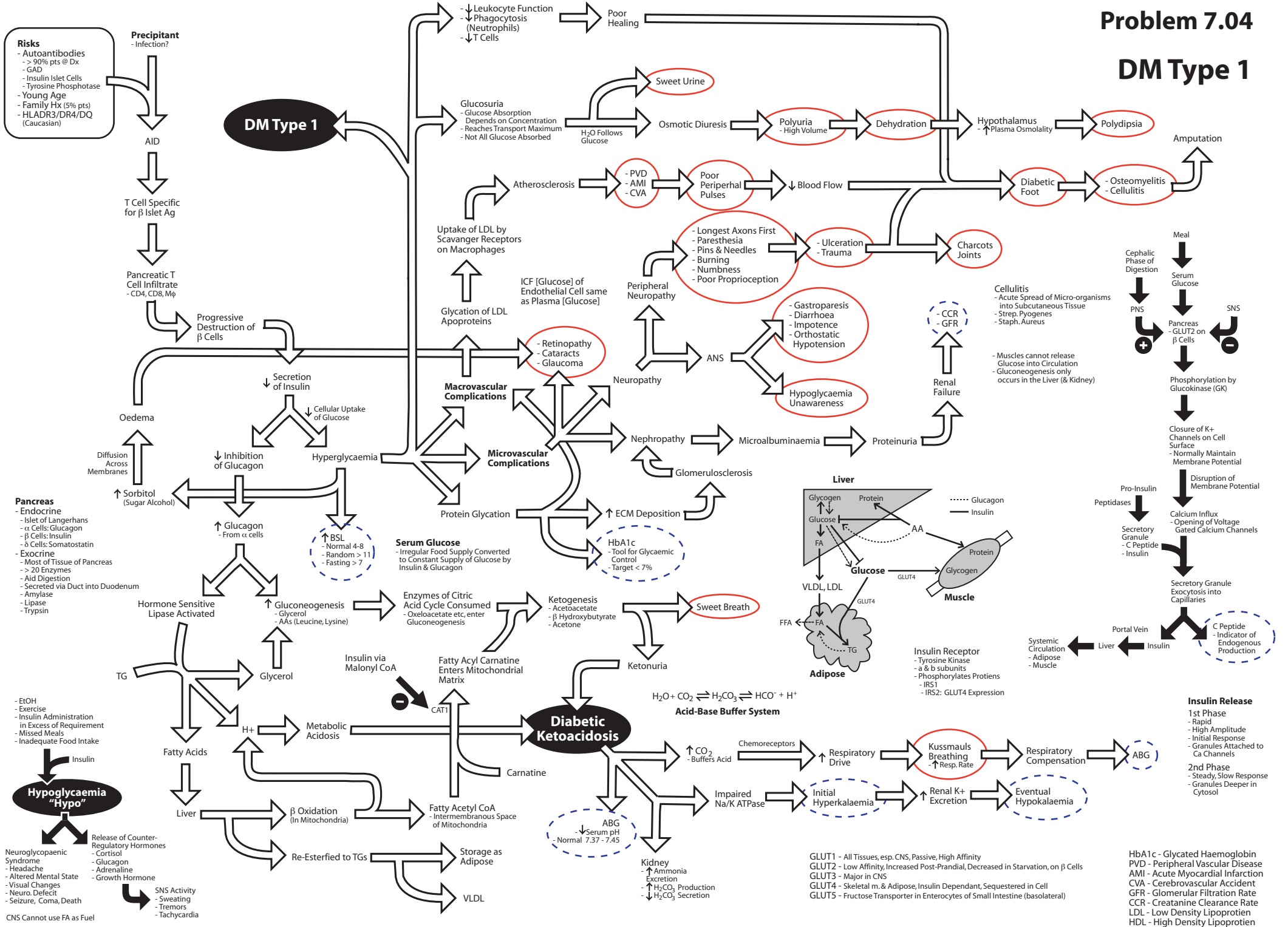


Problem 7.04

DM Type 1



- Risks**
- Autoantibodies
 - > 90% pts @ Dx
 - GAD
 - Insulin Islet Cells
 - Tyrosine Phosphatase
 - Young Age
 - Family Hx (5% pts)
 - HLA DR3/DR4/DQ (Caucasian)

DM Type 1

- Pancreas**
- Endocrine
 - Islet of Langerhans
 - α Cells: Glucagon
 - β Cells: Insulin
 - δ Cells: Somatostatin
 - Exocrine
 - Most of Tissue of Pancreas
 - > 20 Enzymes
 - Aid Digestion
 - Secreted via Duct into Duodenum
 - Amylase
 - Lipase
 - Trypsin

- Hypoglycaemia "Hypo"**
- EtOH
 - Exercise
 - Insulin Administration
 - In Excess of Requirement
 - Missed Meals
 - Inadequate Food Intake

- Neuroglycopenic Syndrome**
- Headache
 - Altered Mental State
 - Visual Changes
 - Neuro Defect
 - Seizure, Coma, Death
- SNS Activity**
- Sweating
 - Tremors
 - Tachycardia
- CNS Cannot use FA as Fuel

- Insulin Release**
- 1st Phase
 - Rapid
 - High Amplitude
 - Initial Response
 - Granules Attached to Ca Channels
 - 2nd Phase
 - Steady, Slow Response
 - Granules Deeper in Cytosol

HbA1c - Glycated Haemoglobin
PVD - Peripheral Vascular Disease
AMI - Acute Myocardial Infarction
CVA - Cerebrovascular Accident
GFR - Glomerular Filtration Rate
CCR - Creatinine Clearance Rate
LDL - Low Density Lipoprotein
HDL - High Density Lipoprotein

GLUT1 - All Tissues, esp. CNS, Passive, High Affinity
GLUT2 - Low Affinity, Increased Post-Prandial, Decreased in Starvation, on β Cells
GLUT3 - Major in CNS
GLUT4 - Skeletal m. & Adipose, Insulin Dependant, Sequestered in Cell
GLUT5 - Fructose Transporter in Enterocytes of Small Intestine (basolateral)