**CAUSES OF INTERFERENCE IN ASSAYS**

+/++/+++ = positive interference  -/--/--- = negative interference

**Haemolysis:**
- Albumin +; AST +; bilirubin – total and conjugated ---; bilirubin – neonatal ++;
- chloride +; cholesterol – total +; CRP – urgent ---; iron ++; LD +++; Mg^{++} +++;
- potassium +++; PO_{4} +; protein – total ++; triglyceride +; urate ++.

**Bilirubin:**
- Cholesterol – total ---; triglyceride +++.

**Lipid:**
- Albumin +; bilirubin – neonatal +++; Mg^{++} +++; protein – total +.

**Ascorbate:**
- APL; cholesterol – total; triglyceride, urate.

**Direct sunlight:**
- Avoid in total, conjugated and neonatal bilirubins.

**Macroenzymes:**
- Total amylase (but not pancreatic amylase), LD, CK.

**Air bubbles:**
- pH; PO_{2}; PCO_{2}.

**Heterophile antibodies and rheumatoid factors:**
- cTNI; cTNT, and most immunoassays.

**Others:**
- **Amylase – total:** (performed on fluid only) – contribution of salivary amylase component.
- **Albumin:** high serum protein, venous stasis at time of collection.
- **Creatitine:** acetoacetate, cephalosporins, frusemide and other drugs, glucose, proteins
- **Glucose:** delayed processing if not in fluoride tube; severe leucocytosis
- **HDL cholesterol:** not reported if triglycerides > 10
- **Ionised calcium:** not reported if pH < 7.2 or > 7.7: use only designated blood gas syringe; do not fill dead space of syringe with heparin; aerobic collection.
- **Iron:** iron therapy
- **LDL cholesterol:** not reported if triglyceride > 5; glycerol.
- **O_{2}sat %:** estimated value unless requested – does not measure carboxy-, met-, sulphaemoglobins nor congenital haemoglobin variants.
- **Potassium:** severe leucocytosis, fist clenching with tourniquet; prolonged delay in processing.
- **Sodium:** prone to electrolyte exclusion effect of high protein or triglycerides; prolonged delay in processing.
- **Total protein:** venous stasis at time of collection.
- **Urate:** glucose, paracetamol

**Not usually affected:** lactate, GGT, ALT, lipase, pancreatic amylase, pro BNP (marginally affected by renal failure), urea.

**NB:**
- Lipid reporting subject to change.
- Avoid collecting blood from drip arm; contamination by wrong anticoagulant; delayed separation.