Top Tips for Avoiding Haemolysis

- **Use a 20-22 gauge needle for routine collection.**
  Too small a needle results in excess force, while too large a needle can cause stress on the cell walls. Avoid using narrow gauge ‘butterfly’ needles where possible.

- **Do not leave the tourniquet on for longer than three minutes.**
  The longer the tourniquet remains on the arm, the higher the incidence of haemolysis.

- **Place the needle correctly in the vein.**
  If the bevel of the needle is crowded by the inner wall of the vein, this exerts force on the cells. This is typically indicated by too slow a blood flow.

- **When using a syringe, pull the plunger gently.**
  Pulling too quickly exerts excess pressure and will rupture the cell walls.

- **Avoid transferring blood between tubes whenever possible.**
  If you must, don’t push hard on the syringe plunger, as this causes excess pressure, and can also cause loss of the sample if the stopper comes off.

- **Warm up the puncture site**
  Warming increases blood flow and prevents the need to “milk” the site.

- **Fill tubes to the correct volume**
  Under-filling tubes containing anticoagulant results in a higher than recommended concentration of the additive, which promotes haemolysis.
  Use a smaller tube for difficult draws.

- **Alcohol damages cells:**
  Allow the venipuncture site to completely air dry after cleaning it with alcohol.

And after collection:
- **Be Gentle!** – Gently invert sample five times
- **Allow serum samples to stand for 30 minutes** in a vertical position for clot to form
- **Note that transport of samples via the pneumatic tube system** (in the hospital) shakes the sample and can break up cells