* Determine assay range and compare to result (if given a numerical result).
* Determine what dilution would lower result into assay range.
  + Can consult sheet explaining what the analyzer auto dilutes to for a good reference point.
* Determine what diluent is needed for the dilution by consulting the fast facts binder.
* Perform the manual dilution using a calibrated pipette.
  + The less steps the better ie when doing a 1:6 for instance and using a pipette set to 100 uL, place 100 uL of patient sample in tube, change the setting on the pipette to 500 uL and use that setting to transfer diluent to the dilution tube
    - Most pipettes are calibrated to be within +/- N per aspiration. The fewer steps in the pipetting process the less potential error is introduced into the equation. A two step dilution could be off by N x 2, while a dilution that stays on the previously discussed 100 uL for the 1:6 dilution and pipettes 100 uL of diluent 5 times in addition to the patient could be off by N x 6.
* Put the dilution factor into the software when manually programming the diluted specimen to run. Very Important.
  + If the dilution factor isn’t put in then the possibility of resulting the incorrect result increases dramatically.
    - We don’t want to have to rely on the tech to take the result and manually calculate it based off the result.
    - Our paper records won’t match what’s in Meditech if the calculation is performed offline and input correctly.
    - Having multiple techs in the lab when this is done increases the risk of the other tech resulting the result without calculating it based on the dilution factor, since it ships the result over in meditech with no indication it has been diluted. (Has happened once that I know of).
    - If the dilution factor isn’t put in, the analyzer may auto dilute the specimen further which adds another layer of potential error. Just not a good lab practice to dilute dilutions.
  + So put the dilution factor in.
* A higher dilution may be required if the first dilution remains outside of the assay range.
  + Start from scratch and use the patient sample and recommended diluent.
    - Please don’t dilute the dilution.