Ultrasound A-scan Biometry (Take Home Points)

1. Principle: Axial length measured based on time taken by ultrasound waves traversing through each ocular structure in the visual axis

2. Frequency of ultrasound : 8-10MHz

3. Spikes seen on the ultrasound scan arise from each interface i.e. junction between two different media and not the ocular tissue as a whole

4. Keratometry data can be entered from any available instruments.

5. While doing immersion biometry, the probe should be fixed only upto the demarcated line on the pregger's shell

6. Contact method should be performed in sitting while immersion should be performed in lying down position

7. While choosing best scans for axial length average always compare the axial length value and compare the spikes as well

8. Immersion biometry will give an extra spike in the start which comes from the probe-saline interface and gives C1 and C2 spikes from the corneal interface

9. Contact biometry gives one spike from the corneal interface only

10. Always make sure to change vitreous velocity of sound in silicone filled eye. Failing to do so can overestimate the axial length and underestimates the IOL power.