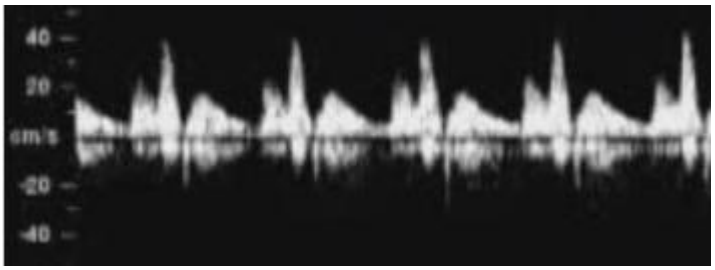
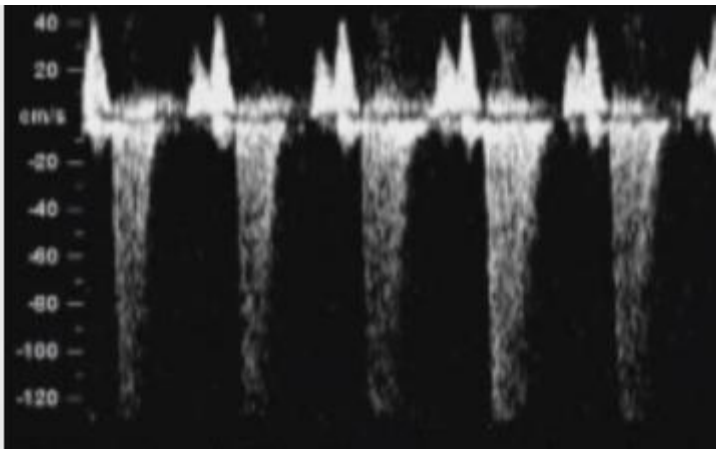
Fetal Medicine Foundation
Assessment of Fetal Tricuspid Flow

- The gestational period must be 11 to 13 weeks and 6 days.
- The magnification of the image should be such that the fetal thorax occupies most of the image.
- An apical four-chamber view of the fetal heart should be obtained.
- A pulsed-wave Doppler sample volume of 2.0 to 3.0 mm should be positioned across the tricuspid valve so that the angle to the direction of flow is less than 30 degrees from the direction of the inter-ventricular septum.
- Tricuspid regurgitation is diagnosed if reversed flow lasting at least half of the systole is seen. The velocity should be over 60 cm/s. Aortic or pulmonary arterial blood flow can contaminate the Doppler waveform and produce a maximum velocity of 50 cm/s.
- The tricuspid valve could be insufficient in one or more of its three cusps, and therefore the sample volume should be placed across the valve at least three times, in an attempt to interrogate the complete valve.

Normal tricuspid flow



Tricuspid regurgitation



Requirements for accreditation in the first trimester assessment of the fetal tricuspid flow:

- FMF accreditation in the measurement of nuchal translucency.
- Attendance of the internet based course on the internet based course on the 11-13 weeks scan
- Submission of a logbook of three images demonstrating tricuspid flow