Neonatal cranial ultrasound scanning for the pilot feasibility study of whole body cooling for neonatal encephalopathy at Mulago University Hospital

Imperial College London

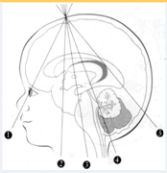
UCL

Make space between the baby's head and the end of the cot so you can move the probe in all directions

Feel fontanelle, place probe gently on

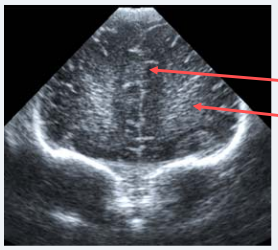
Point the marker on the side of the probe to the right side of the baby

Standard coronal views



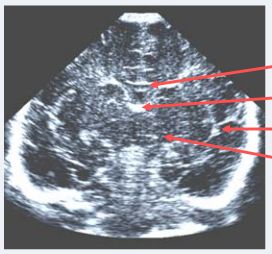
Scan protocol

1. on admission
2. day 3
3. day 7



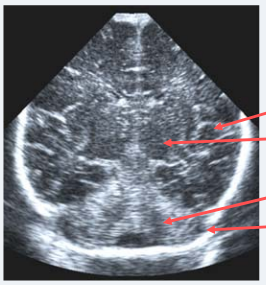
Anterior coronal

- interhemispheric fissure
- white matter



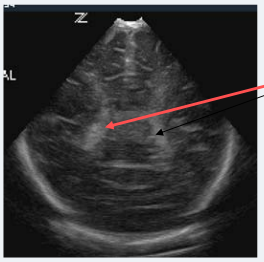
Mid-coronal

- corpus callosum
- choroid at foramen of Monro
- Sylvian fissure (insula)
- basal ganglia



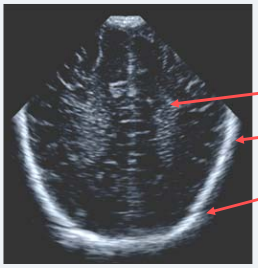
Thalamic view at maximum width of the cerebellum

- Sylvian fissure (insula)
- thalamus
- cerebellum
- lambdoid suture



Postero-lateral venticles

To show the full length of the choroid plexus



Posterior to the ventricles

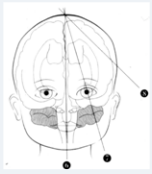
- white matter
- interhemispheric fissure
- lambdoid suture

Always try to be symmetrical

If you see something unusual take an image of it that shows it best in coronal and sagittal views if possible

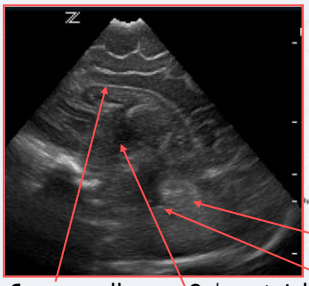
Always freeze and save the images

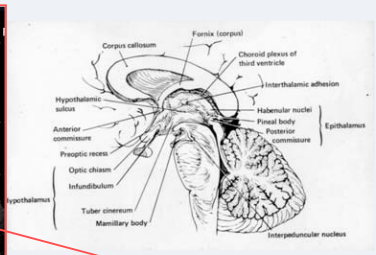
Standard sagittal / parasagittal views



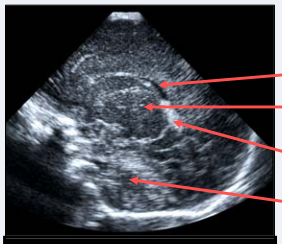
Turn probe so side mark points to front (nose) of the baby

Mid-sagittal view



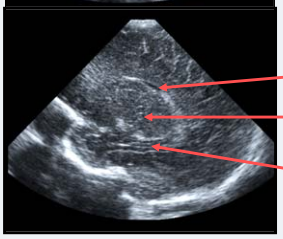


Corpus callosum, 3rd ventricle, 4th ventricle cerebellar vermis



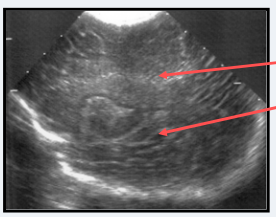
Parasagittal view 1

- caudothalamic notch
- thalamus
- choroid plexus in ventricle
- body of cerebellum



Parasagittal view 2

- ventricle
- thalamus
- medial insula (Sylvian fiss.)



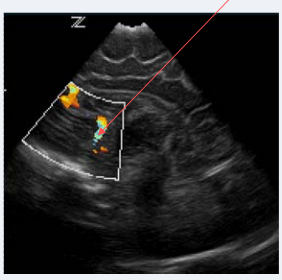
Parasagittal 3

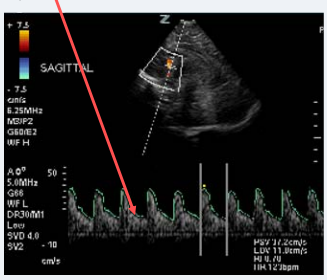
- white matter
- lateral insula (Sylvian fiss.)

Doppler measurements

Anterior cerebral artery

Spectra





Mid-sagittal view. press C to get green box on screen

Move box over vessel, turn up gain if vessel not seen

Press PW to get spectra . Remember to change the scale if the spectra do not fit on the graph