**US Abdomen Complete**

Image the following in longitudinal and transverse planes.

- Liver
- Kidneys - Renal Fossa if removed
- Spleen - Splenic Fossa if removed
- Pancreas - Pancreas area if not visualized
- Gallbladder - GB Fossa if contracted or removed, include decub images
- Urinary Bladder - Bladder area if empty

- Longitudinal images of the upper IVC and aorta, proximal, mid, and distal
- Measure the kidneys in longitudinal, AP, and transverse
- Measure the spleen in longitudinal
- Measure the CBD & MPV, aorta proximal, mid, distal
- Image the MPV in gray scale and color
- Document AREA if you are unable to visualize an organ

If the indication is for increased LFT's, fatty liver, eval for cirrhosis include images taken with the linear probe to evaluate the liver capsule.

If there are liver lesions present indicate location as to right or left lobe. Obtain a cine through the abnormal area.

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**US Abdomen Limited**

- Single organ, dedicated area (HPS study, appendicitis, ascites, hernia) or anything missing from the above study.

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**US Abdomen w/Doppler**

Same as IMG13400 Abdomen Complete as above, with the addition of an organ Doppler to include color and spectral waveforms.

- In most cases this will be a liver Doppler but could be any organ Doppler specified by the provider.

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**US Organ Doppler**

- Documentation of venous and arterial flow with color and spectral Doppler within an organ.
- This exam MUST be accompanied by an order for a body part such as RUQ, Abd ltd, etc.

See page 2 for the following:

*Doppler Instructions* for Portal HTN, Pre and Post Liver Transplant, Ascites, and Post TIPS Placement.
Abdominal Doppler for Portal HTN, Pre-liver Transplant, and Ascites

- Doppler all of the branches of the portal vein. MPV, RPV, LPV with the use of color and spectral Doppler.
- Make every attempt to show color flow in the entire MPV.
- Include color and spectral Doppler of all branches of the hepatic arteries, MHA, RHA, and LHA.
- Image the IVC, and all hepatic veins, RHV, MHV, LHV with color and spectral Doppler.
- Show color and spectral Doppler of the splenic vein. Try to show this as it comes under the pancreas and at the splenic hilum.
- Make sure to evaluate for a splenorenal shunt, recanalized periumbilical vein, and for varices. Document with color imaging.

Abdominal Doppler in the Setting of Post TIPS Placement

All of the above with the inclusion of documenting the velocity of the MPV. Make sure the spectral Doppler cursor has an angle correction of 60 or less and is parallel to the MPV. This velocity is taken distal to the PV end of the TIPS.

- Using color Doppler, image the entire TIPS.
- Include spectral Doppler images recording the velocity of the TIPS at the level of the hepatic vein end, mid TIPS, and portal vein end. Only use spectral Doppler, not color. Make sure the cursor has an angle correction of 60 or less and is parallel to the TIPS.
- The velocity of the TIPS is usually three times that of the portal vein.

Abdominal Doppler in the Setting of Post Liver Transplant

Same as for pre liver transplant with the following inclusions.

- The MPV velocity is taken at the level of pre-anastomosis, at the anastomosis, and post anastomosis using an angle correction of 60 or less and parallel to the MPV.
- Take an RI and an acceleration of all hepatic arteries, MHA, RHA, and LHA.