Supplementary

Table S1 Recommendations for dynamic contrast-enhanced CT of the liver (1,2)

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Feature	CT scans should meet the below specifications
Scanner type	Multidetector row scanner
Detector type	Minimum of 8 detector rows and must be able to image the entire liver during brief late arterial phase time window
Slice thickness	Minimum of 5 mm reconstructed slice thickness; thinner slices are preferable especially if multiplanar reconstructions are performed
Injector	Power injector, preferably dual chamber injector with saline flush and bolus tracking recommended
Contrast injection rate	3 mL/sec minimum, better 4–6 mL/sec with minimum of 300 mg l/mL or higher, for dose of 1.5 mL/kg body weight
Mandatory dynamic phases on contrast-enhanced MDCT	(I) Late arterial phase: artery fully enhanced, beginning contrast enhancement of portal vein
	(II) Portal venous phase: portal vein enhanced, peak liver parenchymal enhancement, beginning contrast enhancement of hepatic veins
	(III) Delayed phase variable appearance, greater than 120 seconds after initial injection of contrast
Dynamic phases (timing)	Use the bolus tracking or timing bolus

Table S2 Recommendations for dynamic contrast-enhanced MRI of the liver (1,2)

Feature	MRI scans should meet the below specifications
Scanner type	1.5T Tesla or greater main magnetic field strength. Low field magnets are not suitable
Coil type	Phased array multichannel torso coil, unless patient-related factors preclude its use
Minimum sequences	Pre-contrast and dynamic post gadolinium T1-weighted gradient echo sequence (3D preferable), T2 (with and without fat saturation), T1-weighted in and out of phase imaging
Injector	Dual chamber power injector with bolus tracking recommended
Contrast injection rate	2-3 mL/sec of extracellular gadolinium chelate that does not have dominant biliary excretion, preferably resulting in vendor recommended total dose
Mandatory dynamic phases on contrast-enhanced MRI	(I) Pre-contrast T1W: do not change scan parameters for post contrast imaging
	(II) Late arterial phase: artery fully enhanced, beginning contrast enhancement of portal vein
	(III) Portal venous phase: portal vein enhanced, peak liver parenchymal enhancement, beginning contrast enhancement of hepatic veins
	(IV) Delayed phase: variable appearance, greater than 120 seconds after initial injection of contrast
Dynamic phases (timing)	The use of the bolus tracking method for timing contrast arrival for late arterial phase imaging is preferable. Portal vein phase images should be acquired 35 to 55 seconds after initiation of late arterial phase. Delayed phase images should be acquired 120 to 180 seconds after the initial contrast injection
Slice thickness	5 mm or less for dynamic series, 8 mm or less for other imaging
Breath-holding	Maximum length of series requiring breath-holding should be about 20 seconds with a minimum matrix of 128×256. Technologists must understand the importance of patient instruction about breath holding before and during scan

References

- 1. Organ Procurement and Transplantation Network. 18th, July, 2024. Available online: https://optn.transplant.hrsa.gov/media/gqlnhrtn/20200804_nlrb_adult_hcc_guidance.pdf.
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