

MRCP

Preparation:

- Fast at least 4 hours prior to exam
- Coil: body array coil (modify based on child's age)
- Coverage: inferior lung bases through iliac crest

Optional:

- Secretin – may improve visualization of pancreatic duct; dose - 0.2-
µgm/kg IV [1]
- Negative oral contrast agent – Acai/Blueberry/Pineapple juice [2] or
other commercially available agent

Sequence Name	Vendor Specific Name	Plane (s)	Fat Saturation	Motion Correction	Additional info
T2 single shot	T2 Haste, SSFSE, SSH-TSE	Ax, Cor	Yes	FB	
T2 FSE radial	BLADE, PROPELLER, MultiVane	Axial	Yes	RT, BH	
Balanced steady state free precession	TrueFISP, FIESTA, balanced FFE	Axial/Coronal	Yes	RT, BH	
3D MRCP		Coronal Oblique	Yes	RT	MIPs of biliary tree with rotating tumble TE: 500-1000 msec
OPTIONAL : T1 FS 3D GRE	VIBE, LAVA, THRIVE	Axial, Coronal	Yes	Pre-post contrast BH	Optional: 1) evaluation for focal liver lesions or 2) contrast enhanced MRCP in hepatobiliary phase looking for bile leaks or strictures See dynamic liver protocol for specific contrast agents and timing

					If giving IV contrast, perform MRCP after contrast
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FB = free breathing, RT = respiratory triggered, BH = breath hold

References:

1. Chavon GB, Babyn PS, Manson D, et al (2008) Pediatric MR Cholangiopancreatography: Principles, Techniques, and Clinical Applications
2. Bittman ME, Callahan MJ (2014) The effective use of acai juice, blueberry juice, and pineapple juice as negative oral contrast agents for magnetic resonance cholangiopancreatography in children. *Pediatr Radiol* 44: 883-887