

# MR Protocol – Rectal carcinoma

System: minimum 1.0T

Coil: Phased array surface coil

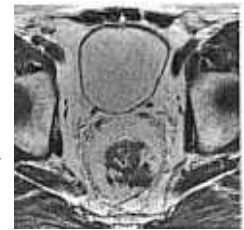
## Sagittal FSE/TSE T2W:

FOV:	20-24 cm
Slice thickness	4-5 mm
Intersection gap	1 mm
Matrix	≥256x256
TE	85-120 ms
TR	>3000 ms
NEX/NSA	≥2



## Axial /transversal FSE/TSE T2W: From pelvic floor to promontorium

FOV:	20-24 cm
Slice thickness	4-5 mm
Intersection gap	1 mm
Matrix	≥256x256
TE	85-120 ms
TR	>3000 ms
NEX/NSA	≥2



## Axial /transversal FSE/TSE T1W: identical slices as T2W

FOV:	20-24 cm
Slice thickness	4-5 mm
Intersection gap	1 mm
Matrix	≥256x256
TE	minimum
TR	400-700 ms
NEX/NSA	1-2

## High resolution oblique FSE/TSE T2W: Perpendicular to the axis/axes of the rectum

FOV:	16 cm
Slice thickness	3-4 mm
Intersection gap	0-1 mm
Matrix	≥256x256
TE	85-120 ms
TR	>3000 ms
NEX/NSA	≥6



## Sag + Coronal FSE/TSE T2W:

FOV:	16-20 cm
Slice thickness	3-4 mm
Intersection gap	0-1 mm
Matrix	≥256x256
TE	85-120 ms
TR	>3000 ms
NEX/NSA	≥4



The scan parameters are based on 1.5T system. More NEX/NSA may be necessary on 1.0T

\* 0 mm intersection gap may cause crosstalk on some MR-systems. Crosstalk can be avoided by true interleaved (concatenation) scanning, but the total scan time will be substantial prolonged. 4 mm slice thickness with 1 mm intersection gap produces images with superior signal-to-noise ratio in a much shorter scan time, but the spatial resolution is inferior to 3/0mm.