## Rectal Cancer (Pre-operative staging of rectal cancer - Cancer Care Ontario)

Rectal surgeons have increasingly been using complex MRI criteria to help determine their surgical and therapeutic approaches. This module provides entry fields for such criteria, including tumor position, appearance and length, extramural invasion, relationship to the anal verge and sphincter and several other parameters. This module provides structure for assuring that all data has been included and entered with the proper terminology. This module is based on a categorization and diagnosis system that has been provided by Cancer Care Ontario in a user's guide published in 2015, and is available online.

(Ref: Al-Sukhni, et al. User's Guide for the Synoptic MRI Report for Pre-Operative Staging of Rectal Cancer 2015 - Cancer Care Ontario)

T1 or T2	Tumor invades submucosa and/or muscularis propria without invasion beyond rectal wall. Disruption of muscularis propria from penetrating vessels should not be staged as T3.	T3/ Possible T4	Tumor invades through muscularis propria with possible invasion of external structures.	posturous
T2/ Early T3	Possible invasion of the mesorectal fat. Spiculation of the mesorectal fat caused by benign desmoplastic reaction, seen as low signal intensity on T2-weighted images (T2 tumor), can be difficult to distinguish from tumor extension, seen as intermediate signal intensity on T2-weighted images (early T3 tumor).	T4a	Tumor penetrates to surface of visceral peritoneum.  On T2-images, the peritoneal reflection is a thin, hypointense line connecting the bladder with the anterosuperior rectum.	
Т3	Tumor invades through muscularis propria to pericolorectal tissues. Must measure extramural depth of invasion as well as distance between tumor and mesorectal fascia (MRF).	T4b	Tumor directly invades or is adherent to other organs or structures.  Tumor invasion is defined as loss of the intervening fat plane and corresponding T2 signal abnormality within the involved surrounding structure.	