Manchester Cancer

Short course pre-operative patients
Proposed pathway for Manchester Cancer Colorectal Pathway

Authors: Lucy Davidson, Colorectal specialist radiographer, The Christie NHS FT
Dr Mark Saunders, Consultant clinical oncologist, The Christie NHS FT
Dr Vivek Misra, Consultant clinical oncologist, The Christie NHS FT
Mrs Sarah Duff, Consultant colorectal surgeon, UHSM

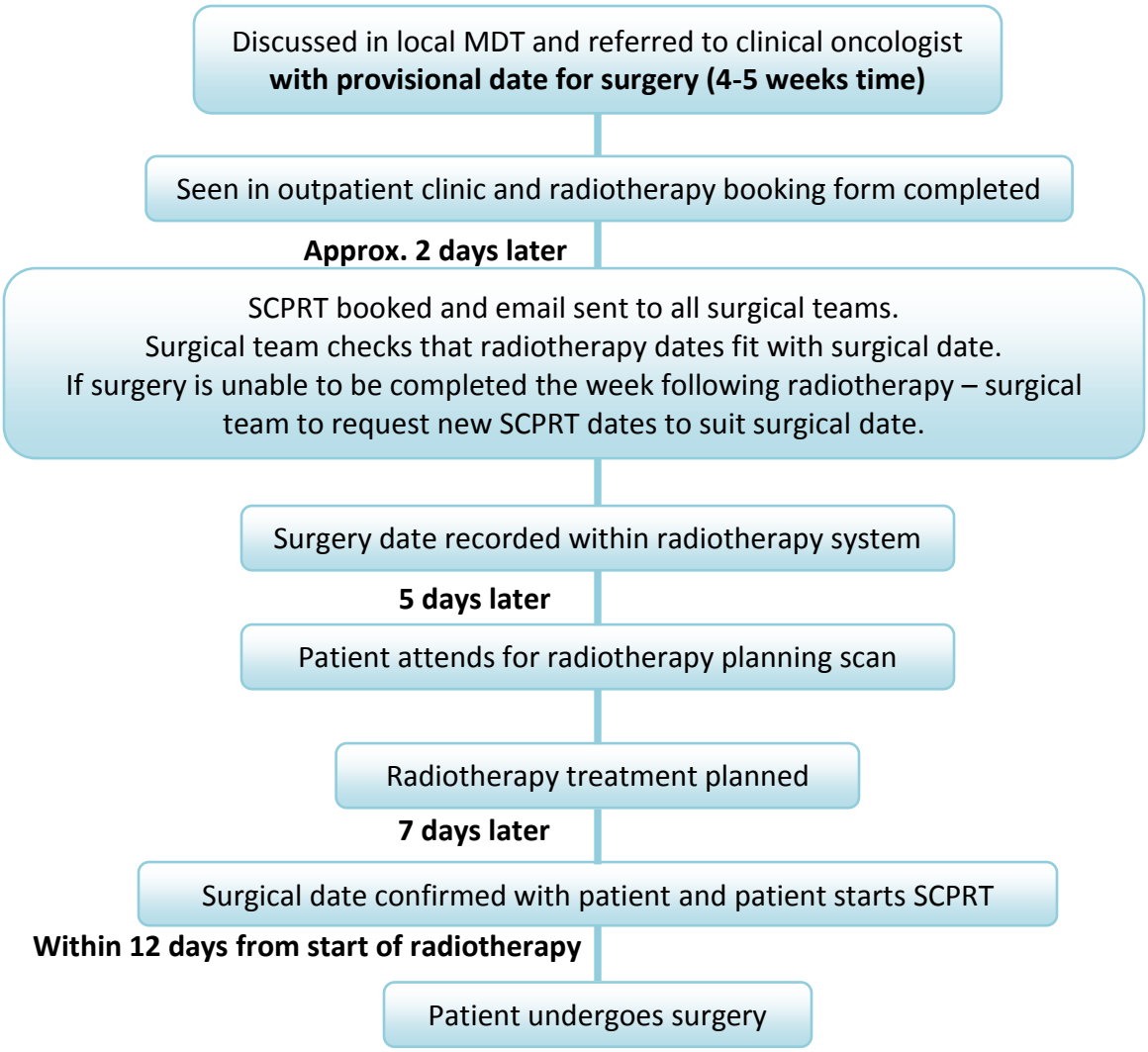
Background/rationale:
A short course of pre-operative radiotherapy (SCPRT) should be considered for operable rectal cancers with the primary aim of reducing the risk of local recurrence[1-3].

Inclusion criteria:
A short course of pre-operative radiotherapy (SCPRT) should be considered for T3 cancers that do not threaten the CRM and also considered for some T2 tumours in the mid and low rectum on an individual basis [1-3.] Potentially involved lymph nodes or local blood vessels should also not threaten the CRM. It is appropriate to consider a SCPRT for high "bulky" T3 tumours that do not threaten the CRM. T1 and T4 tumours should not normally receive a SCPRT unless they are eligible for a clinical trial or if the MDT feels that there is a particular reason to recommend a SCRT.

Dose, regime and time to surgery:
The standard SCPRT dose and regime within the Manchester Cancer area is 20Gy in 4 fractions (#)[4]. Although this differs from the national regime and dose of 25Gy in 5#[5], there is published data to support this current protocol. This data demonstrates that this treatment regimen has a local recurrence rate comparable with the rest of the UK; however there is an improvement in patient's quality of life (QoL) due to a reduction in late radiation toxicity[4]. However, if the MDT feels that 25Gy in 5# is appropriate for a particular patient then this is also acceptable.

SCPRT acute toxicity commonly occurs at 2 weeks from the commencement of treatment. These cellular level toxicities include mucosal cell loss, acute inflammation, eosinophilic crypt abscesses, endothelial swelling in the arterioles induced by SCPRT[6]. Therefore, it is recommended that surgery is **undertaken within 12 days from the commencement of SCPRT** (i.e. RT one week and surgery the following week).

Current 'general' SCPRT pathway:



Please note: if the surgical team are trying to 'forward plan' their workload, commonly patients take 3 full weeks from MDT discussion to the start of SCPRT (however this is only an approximation and local practices may differ).

The Christie NHS Foundation Trust recognises that there are exceptional circumstances where patients may have to be fast-tracked through this process. It would be greatly appreciated if the surgical team could inform the referral clinical oncologist and colorectal specialist radiographer as soon as possible if a fast-track is required. This will enable the team to 'forward plan' their workload and reduce the potential risk of error.

References:

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3. Guidelines for the Management of Colorectal Cancer 3rd edition (2007) [online]. *The Association of Coloproctology of Great Britain and Ireland.* Last accessed on 30 June 2014 at http://www.mccn.nhs.uk/userfiles/documents/Nat%20Ass%20of%20Coloproctology%20Guidelines(1).pdf

4. Saunders MP, Alderson H, Chittalia A, Hughes S, James RD, Swindell R, Scott NA (2006). Preoperative radiotherapy for operable rectal cancer – is a lower dose to a reduced volume acceptable? *Clinical Oncology*. 18(8): 594-9, 2006

5. Medical Research Council Clinical Trials Unit. CR07 protocol, 1997.

6. McConnel Greven, K., Paunesku, T. Radiation complications of the pelvis [online]. Last accessed on 30 June 2014 at http://eknygos.lsmuni.lt/springer/394/125-153.pdf