The Value of Rapid Reviews
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Purpose:
Describe the value of rapid (pre-treatment) reviews within the clinical trial environment.

Methods and Materials:
The Radiological Physics Center (RPC) performs rapid reviews for several different study groups and for a variety of disease sites including colon, breast, endometrial and cervix. Rapid reviews have been performed for high dose rate brachytherapy studies, 3D CRT and IMRT studies. The purpose of rapid reviews is to verify that the radiation oncologist is capable of treating a patient per protocol specifications prior to treatment commencing with the goal of reducing the number of deviations.

The rapid review process requires that the institution electronically submit the protocol patient treatment plan prior to the commencement of treatment for a dosimetric and clinical review. Dependent on the protocol, the first patient or every patient submitted by a physician might require a rapid review. Rapid reviews enable the RPC to provide feedback to the physician to rectify errors prior to the start of treatment. Deviations are assessed according to defined criteria within the specific protocol.

When submitting the electronic data the institution is informed that the rapid review process can take up to 3 business days if all of the information that is requested is submitted to the Image Guided Therapy (ITC) QA Center located in St. Louis. The following must be submitted for each electronic case:

1. Digital Treatment Planning Data are to be submitted via secure FTP. Each user has its own password protected account into the sFTP.

2. The Digital Data Submission Information (DDSI) Form.

3. Color isodose images which are used as a check in evaluating digital data.

4. Email to itc@wustl.edu to alert the staff that you have submitted your data.

Once the data has been reviewed by ITC, the data along with the DDSI form is then provided to the RPC to perform a dosimetric evaluation (see below). This evaluation is then provided to the Radiation Oncologist to perform the clinical review online.

Results:
For three protocols, where rapid reviews were required for the first patient placed on protocol, 24%, 48% and 53% required a revision and resubmission for a re-review due to a significant protocol deviation. Of these three protocols there were 29 Radiation Oncologists who submitted patient cases and participated in the rapid review process for two or more of the protocols. Of the 29 Radiation Oncologists, 14% of them had to perform a resubmission on a minimum of two protocols. For one protocol, where rapid reviews were required for all patients, 81% of the submitted patient cases required a revision and resubmission for a re-review. Radiation Oncologists who completed the rapid review process received no major deviations on subsequent patient’s placed on protocol.

Results (cont’d):
For three protocols, where rapid reviews were required for the first patient placed on protocol, 24%, 48% and 53% required a revision and resubmission for a re-review due to a significant protocol deviation. Of these three protocols there were 29 Radiation Oncologists who submitted patient cases and participated in the rapid review process for two or more of the protocols. Of the 29 Radiation Oncologists, 14% of them had to perform a resubmission on a minimum of two protocols. For one protocol, where rapid reviews were required for all patients, 81% of the submitted patient cases required a revision and resubmission for a re-review. Radiation Oncologists who completed the rapid review process received no major deviations on subsequent patient’s placed on protocol.

Conclusions:
Rapid reviews serve the purpose of reducing the number of protocol deviations by providing feedback to Radiation Oncologists on how to better comply with the requirements of the protocol prior to commencing treatment of a patient on the study.

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