ROLE OF THE RPC

- Funded since 1968 by NCI to assure that institutions participating in group studies are delivering comparable doses
  - Off-site Reviews
  - Patient Dosimetry
  - On-site Reviews
  - Research
  - Support
  - Outreach
  - Interaction with Study Groups
>1,600 RT facilities in 23 countries throughout the world, including 45 EORTC members

**RPC QA ACTIVITIES**

- Presently monitoring 1,609 megavoltage therapy sites including Canada, Europe and Asia  
  (There are ~ 2,400 RT sites in USA)
- ~14,000 photon and electron beams measured with TLD each year.
- Dosimetry review visits to:
  - ~50 institutions each year
  - ~500 megavoltage beams audited each year
  - Many brachytherapy sources audited each year
CREDENTIALING FOR GOG 0238

GOG 0238 Requirements

In order to complete the credentialing process the following items must be completed:

- Each Radiation Oncologist must complete and submit online a Knowledge Assessment to the RPC.
- Complete and submit an IMRT Facility Questionnaire to the Advanced Technology Consortium (ATC).
- A successful digital IMRT treatment planning data submission test to the ATC.\(^1\)
- Irradiate the RPC's IMRT HAN or pelvic phantom.\(^2\) Please fill in the phantom request form online. The "IMRT Benchmark" does not satisfy the credentialing requirements for this protocol.

Note:

1. If you have previously submitted IMRT data to the ITC, you may not be required to repeat this step. If you have submitted digital data for other IMRT protocols you should fill in the Credentialing Status Inquiry Form.

2. Irradiation of the pelvic phantom satisfies part of the credentialing requirements for protocol 0238 but does not necessarily satisfy the IMRT phantom irradiation requirements for other protocols. Institutions that are credentialed to participate in other IMRT protocols requiring a phantom irradiation need not repeat the phantom irradiation for credentialing for this protocol. Institutions that are credentialed to participate in other IMRT protocols should fill in the Credentialing Status Inquiry Form.

\(^1\) Technical note: Heterogeneity dose calculation accuracy in IMRT: Study of five commercial treatment planning systems using an anthropomorphic thorax phantom

Scott E. Davidson, Richard A. Popple, Geoffrey S. Stibitz and David S. Fallowell

\(^2\) EORTC – Radiation Oncology Group Information on requesting TLD, films, forms, and personnel [more]

Short Courses Physics courses related to therapeutic radiology offered at the University of Texas M. D. Anderson Cancer Center.
DATA SUBMISSION

- Cancer trials involving radiation often require that the details of radiotherapy be provided.
- For GOG and several other groups, RPC recalculates the patient dose from data provided, and from our own data.
- Data Managers are asked to collect and submit technical data.
- Dosimetry data unlike much other data requested.
- Includes treatment records, calculations, and images.

WHAT TO SUBMIT?

- Prescription (aka “treatment plan”)
- Setup parameters
- Daily treatment records
- Dosimetry calculations
- Isodose Plans
- Images (for accelerator treatments and brachytherapy)
• Setup
• Daily Record
• Dosimetry calculations

All calculations and supporting data required to set treatment time or “monitor units”

DAILY TREATMENT RECORD

Includes:

- Date
- Field
- MU given
- Dose given
DAILY TREATMENT RECORD

Includes:

- Date
- Field
- MU given
- Dose given
DAILY TREATMENT RECORD

Includes:
- Date
- Field
- MU given
- Dose given

EXTERNAL-BEAM TREATMENT PLANS
BRACHYTHERAPY DATA

Images must show:

- Anatomy
- Bladder contr.
- Rectal markers
- Magnification
- Applicator
- Source dwell pos.
- Dwell times

BRACHYTHERAPY DATA

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BRACHYTHERAPY DATA

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- Applicator
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- Dwell times

Submit for all LDR insertions and HDR fractions

If institution is filmless please provide all CT images on a CD to the RPC.
WHEN RPC REQUESTS DATA ... 

It is because we really don’t have it

If you think you’ve already sent it, call us to be sure you know what we want

We normally correspond with physicist

We also copy data manager so you know we’re requesting data

HOW TO SUBMIT ...

- Mail copies of chart, calculations, and films
- Mail originals of printed images and isodose plans
- Electronic images: use digital data submission to ITC for IMRT plans, CDs to RPC for brachytherapy
DIGITAL DATA SUBMISSION

Requires:

- Setting up a SFTP account with ITC
- Electronically submitting all treatment planning data to the ITC via the SFTP or CD.
- Completing and submitting the Digital Data Submission Information (DDSI) Form.
- Submitting color isodose curves (used as a check in evaluating digital data) sent via email as a jpeg or snail mail.
CONTACT US IF QUESTIONS!

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