

Writing a Practice Guideline: From Conception to Birth

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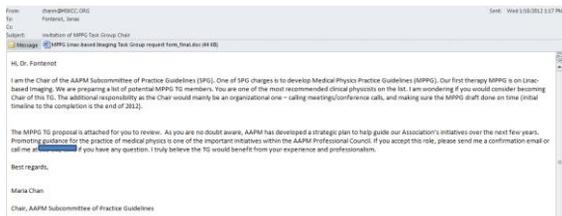
Chief of Physics
Chief Operating Officer

Mary Bird Perkins Cancer Center
Baton Rouge, LA

Chair, MPPG#2
Evaluation and Quality Assurance of X-ray Based
Image Guided Radiotherapy Systems

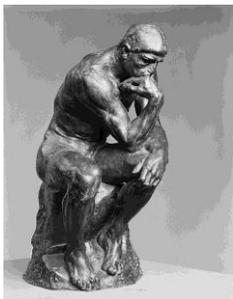
Chair Selection

- One Wednesday afternoon in January...



Chair Selection

- My thought process...
 - What is purpose of an MPPG?
 - What is the charge and scope of this MPPG?
 - Why are existing TG reports not sufficient?
 - What is the timeline?
 - How much of my time will be required?



MPPG #2 Charge, Scope, Timeline

- Succinctly state the minimum acceptable standards for using x-ray based IGRT, similar to ACR-ASTRO technical standards
- “Clinical recipe” for the solo physicist
- Inform the reader of the needs of this particular technology (time, effort, resources)
- Provide necessary references for further investigation
- Final report by end of 2012 – less than 12 months (!!!)

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Member Selection

- Key member attributes
 - Collective expertise with different systems
 - Metrics: personal knowledge, committee recommendations, vendor recommendations
 - Engaged
 - Metric: AAPM activity
 - Responsive/available
 - Metric: response time/quality to personal email/phone call queries
- Key committee attributes
 - Balance of small and large practices
 - Balance of academic and private practices

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2/13/12

Member Selection

MPPG#1: Evaluation and Quality Assurance of X-ray Based Image Guided Radiotherapy Systems

Committee Members:

- Jonas Fontenot (chair) – Mary Bird Perkins Cancer Center
- Andrew Jensen – Mayo Clinic
- Jack Yang – Monmouth Medical Center
- Hassaan Alkhatib – Richland Memorial Hospital
- Jeff Garrett – Mississippi Baptist Medical Center
- Steve McCullough – Methodist Richardson Cancer Center
- Brent Parker – University of Texas Medical Branch at Galveston
- Art Olch (TPC rep) – Children’s Hospital of LA

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Practice Data Collection

- Compile and summarize existing TG recommendations
 - TG 75, 104, 111, 142, 135, 179
- Practice questionnaire sent to MPPG members
 - Staffing/time requirements
 - Equipment
 - Training
 - Commissioning procedures
 - Quality assurance activities

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Practice Data Collection

- Practice questionnaire data collected and summarized
- Initial draft of major elements of the report, incorporating survey data
 - Substantial variability in some areas
- Members writing assignments
 - Process descriptions
 - Chair writes most general sections

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Elements of MPPGs

- Introduction
 - Goals and rationale
 - Intended users
- Definitions/abbreviations
- Staff Responsibilities
- Implementation Guidelines
 - Required resources
 - Staffing
 - Equipment
 - Staff training
 - Process descriptions
- Recommended minimum requirements
- Conclusions

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Timeline to this point...

- 1/18/12: Initial invitation
- 2/13/12: MPPG TG members identified
- 3/19/12: Scope and Timeline submitted to SPG
- 3/27/12: IGRT program questionnaire submitted to MPPG member institutions
- 5/15/12: IGRT program data collected from MPPG member institutions
- 7/01/12: Working draft of report submitted to SPG

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Consensus Building

- Discussion and debate
 - 7/29/12: AAPM face-to-face meeting
 - 8/21/12: Teleconference
 - 8/28/12: Teleconference
 - 9/11/12: Teleconference
 - 9/18/12: Teleconference
 - 10/2/12: Teleconference
 - 10/7/12: Draft report submitted to SPG



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Review (round 1)

- Report submitted for internal review – 10/7/12
 - SPG, PC, TPC, QASC, EXCM
 - Chairs of TG 75, 104, 111, 135, 142, and 179
- Comments received (95) – 11/13/12
 - General: were physicians consulted for this report?
 - Specific: vigorous objection(s) to 2 mm isocenter tolerance for SBRT applications
- Adjudication amongst MPPG members
 - Teleconference – 12/3/12
 - Teleconference – 12/7/12
- Revised report submitted – 12/9/12

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Review (round 2)

- Report submitted for public comment – 12/15/12
- Comments received (34) – 1/28/13
 - General: Increase all time requirements by 5 minutes
 - Specific: “I hate Las Vegas phantoms”
- Adjudication amongst MPPG members
 - Teleconference – 2/5/13
- Revised report submitted – 3/11/13

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Review (round 3)

- Report submitted to SPG and CPC (again) for review - 3/19/13
- Additional comments received (8) – 4/6/13
- Revised report submitted – 4/30/13
- Report submitted to JACMP – 5/10/13
- Comments from JACMP 6/6/13
- Revised report submitted – 6/12/13
- Additional comments from JACMP – 7/21/13
- Revised report submitted – 8/20/13
- Accepted for publication in JACMP – 11/14/13
- Published in JACMP – 1/6/14

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Final Result

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AAPM Medical Physics Practice Guideline 2.a: Commissioning and quality assurance of X-ray-based image-guided radiotherapy systems

Task Group Authors: Jonas D. Fontenot, Hassaan Alkhatib, Jeffrey A. Garrett, Andrew R Jensen, Steven P. McCullough, Arthur J. Olch, Brent C. Parker, Ching-Chong Jack Yang, Lynne A. Fairobert, AAPM Staff

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Summary

- MPPG writing requirements
 - Clearly stated scope
 - Motivated MPPG chair
 - Motivated SPG chair
 - Engaged MPPG members
 - Engaged AAPM staff
 - Discipline and patience
