PETER’S ENDURING IMPACT ON QUALITY MANAGEMENT IN RADIATION ONCOLOGY

Per Halvorsen

2019 AAPM Annual Meeting
Professional Symposium
My interactions with Peter

- WGPE 2005 to 2013
- Prior to TG-100 publication, as Prof Council Chair brought forward concern re. implementation
- Ad Hoc Comm for TG-100 Review 2014-2015
- WG-100 2016-
“Let’s think about it”
WGPE:

- Formed in 2005 with Peter as Chair
- Recognized the need to coordinate with TG-100 and with other societies

Working Group on Prevention of Errors in Radiation Oncology

12 – 2pm, 30th July 2006
Sweetwater, Peabody Hotel, Orlando

MINUTES

Present: Peter Duncombe (Chair)
        David Followill
        Per Halverson
        Eric Klein
        Michael Mills
        Todd Pawlicki
        Martin Weinhous

        Michael Shnell (Guest)
        Jan Hevesi (Guest)
        Wendy Smith Fuan (Guest)

Regrets:
        David Followill
        Michael Herman
        Peter Johnstone

1. The committee introduced themselves and their interests in the topic at hand.
   Peter: resource allocation, quantification of severity and risk
   Eric: error prevention in private practice
   Eric: AAPM Quality Assurance and Outcome Improvement Sub committee

2. The changes to the group were discussed.

3. Relationship of WGPERO to TG100 and QA015:
   There was general agreement on the need to coordinate the activities of this Working Group with TG-100 in particular. The QA015 Subcommittee is the parent Subcommittee of this Working Group and Peter D was recently made a member of QA015 and hence a reporting relationship has been established. Eric will consider the relationship between this Group and TG100 to ensure consistency of activities.

4. Newsletter article:
   Peter D. will prepare an article for the AAPM Newsletter describing the activities of the Group. This will be circulated for comments prior to submission.

5. Collaboration with other professional organizations:
   It was generally agreed that some level of interaction with other professional organizations might be necessary. As a first step, Eric will request AAPM target with other groups, such as ASTRO, to inform them of the workings of this Group.

6. The feasibility of establishing an Incident Database
TG-100 implementation:

- Working Group on TG-100 implementation formed in 2016 with Peter as Chair

American Association ofPhysicists in Medicine
Work Group on the Implementation of TG 100
Telecon: Wednesday 16th March 2016 6 pm Eastern

Minutes

Members Present: Peter Dunscombe, Eric Ford, Per Halvorsen, Dan Low, Jean Moran, Jatinder Palta, Frank Rath, Bruce Thomadsen

Not Present: Saiful Huq

AAPM Staff: Lynne Fairobert

1. Welcome and Introductions – Peter Dunscombe

2. Review of Charge
   To promote and facilitate the implementation of TG-100 methodology in a multidisciplinary radiotherapy environment.
   - Jatinder: Basically 1.5 years ago Excom decided to create an Ad Hoc Committee for the Implementation of TG-100 under Dan Low. This group did preliminary work on how to disseminate TG-100 to AAPM members and the community at large. Last year, Excom decided once TG-100 was published it would be better to make it a Work Group under the Administrative Council. The goal is to create a cohesive approach for implementing TG-100.

   - The final acceptance letter from Medical Physics was received Monday, March 14, 2016. Publication is pending.
WGPE enduring impact

- AAPM-ASTRO Safety Summit 2010 – Call to Action
- SPA – promote safety culture locally
- Taxonomy for incident learning
- RO-ILS
- Safety Checklists – MPPG 4
AAPM-ASTRO Safety Summit

- Program directors: Mike Herman & Bill Hendee
- WGPE contributed

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<tr>
<th>Time</th>
<th>Title</th>
<th>Speakers/participants</th>
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<tr>
<td>8:00am-8:15am</td>
<td>Welcome and Introduction</td>
<td>Hendee, Herman, Williams</td>
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<tr>
<td>8:15am-8:45am</td>
<td>The Complexity of Radiation Treatment</td>
<td>Herman, Marks</td>
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<tr>
<td>8:45am-9:30am</td>
<td>What Can Go Wrong in Radiation Treatment</td>
<td>Dunscombe, Ibbott, Holmberg</td>
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<tr>
<td>9:30am-10:15am</td>
<td>Errors in Radiation Treatment: The Perspectives of Manufacturers</td>
<td>Guertin, Goldwein, Stein</td>
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All sessions take place in the Ashe Auditorium, 3rd Floor
Welcome to the Safety Profile Assessment (SPA). The goal of the SPA is to provide a practical means for assessing and enhancing safety and quality in the radiation oncology clinic. The tool consists of 92 questions-and-answers designed to assess clinical performance in key aspects of safety and quality.

For further information and access follow these links:

- Overview
- Important notes
- SPA - the survey.

We hope you find the Safety Profile Assessment tool useful. Comments and suggestions are welcome.

Thank you,
Peter Dunscombe & Eric Ford

Please provide feedback on this tool via an anonymous survey available upon completion.
Consensus recommendations for incident learning database structures in radiation oncology

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(Received 29 June 2012; revised 16 August 2012; accepted for publication 15 October 2012; published 26 November 2012)
RO-ILS

- Now >10,000 events logged for analysis

**Latest in RO-ILS**

10,000 Safety Events: In conjunction with the 5-year anniversary of the program’s launch, RO-ILS has now collected over 10,000 safety events in a secure and protected environment! Studies have shown that increased event reporting and a strong safety culture are associated with fewer significant adverse events. Addressing near misses and operational issues helps reduce the likelihood of a major incident reaching a patient.
Safety Checklists

• Initiated by WGPE, became MPPG 4
(Switching gears)
TG100/WG100 enduring impact

- Multiple training workshops on risk analysis
- Online repository of resources (WIP)
- Incorporated into SINA
- TG reports / MPPGs incorporate risk analysis
- Possible link to accreditation programs
Training

- Summer School 2013, SCM mini-workshop
- Currently working to build a pool of trainers who can run workshops in their local community
Training cont.

• Plus chapter workshops, EPSM conference Australia 2017, ICMP conference Chile 2019
Online repository (late 2019)

Purpose:
To provide practical resources to assist clinical physicists in implementation of TG-100 prospective risk analysis methods in their clinical practice

Overview:

- Hosted by AAPM on its Medical Physics Electronic Content platform: [http://mpec.aapm.org](http://mpec.aapm.org)
- Moderated by sub-group UN-37 of the Working Group on TG-100 implementation
- Content freely accessible to the public
3.4.5. Risk Analysis

AAPM’s Task Group 100 described another structured framework within which the clinical team can analyze and mitigate risk to enhance the safety and quality of a clinical process. The Task Group 100 approach also starts with the clinical team developing a process map.
TG reports / MPPGs

AAPM Medical Physics Practice Guideline 8.a.: Linear accelerator performance tests

Koren Smith1 | Peter Balter2 | John Duhon3 | Gerald A. White Jr.4 | David L. Vassy Jr.5 | Robin A. Miller6 | Christopher F. Serago7 | Lynne A. Fairbent8

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4Colorado Associates in Medical Physics, Colorado Springs, CO, USA
5Spartanburg Regional Healthcare System, Spartanburg, SC, USA
6Northwest Medical Physics Center, Lynnwood, WA, USA
7Mayo Clinic, Jacksonville, FL, USA
8AAPM Headquarters Staff, Alexandria, VA, USA

Abstract
Purpose: The purpose of this guideline is to provide a list of critical performance tests in order to assist the Qualified Medical Physicist (QMP) in establishing and maintaining a safe and effective quality assurance (QA) program. The performance tests on a linear accelerator (linac) should be selected to fit the clinical patterns of use of the accelerator and care should be given to perform tests which are relevant to detecting errors related to the specific use of the accelerator.

Methods: A risk assessment was performed on tests from current task group reports on linac QA to highlight those tests that are most effective at maintaining safety and quality for the patient. Recommendations are made on the acquisition of additional tests to ensure that these criteria are met.

Charge
1. To review existing data and recommendations that support the use of physics plan and chart review; and to review the current recommendations on the qualifications for performing these.
2. To provide survey information on current practices in the community with respect to physics plan and chart review.
3. To provide risk-based recommendations for the effective use of the following physics review: initial plan and chart check, weekly chart check, and end-of-treatment chart check.
4. To provide recommendations to software vendors for systems design and operations that best facilitate physics plan and chart review.
Non-AAPM work

The Canadian Partnership for Quality Radiotherapy: Why us? Why now? And What About You?

Brian Liszewski, MRT(T), BSc, Caitlin Gilbee, MRT(T), BSc, ME, Guilia Mitrea, BSc, MRT(T), MBA
PhD(c), John Frenjes, DCR(T) MSc, FCAMRT, CHE, Suzanne Drodge, FRCPC, Ely-Lyne Marchand, BSc, MD, PhD, FRCP, Jean-Pierre Bissonnette, PhD, MCCPM, FCOM, Erika Brown, Michael Brandeg, MD, Peter Dunscombe, BSc, PhD

ESTRO-HERO survey
Guidelines for equipment and staffing of radiotherapy facilities in the European countries: Final results of the ESTRO-HERO survey

Peter Dunscombe, Cai Grau, Noémie Defourny, Julian Malicki, Josep M. Borras, Mary Coffey, Marta Bogusz, Chiara Gasparotto, Ben Slotman, Yolande Lievens, on behalf of the HERO consortium

IAEA QUATRO audits in Europe
Improving the quality of radiation oncology: 10 years' experience of QUATRO audits in the IAEA Europe Region

Joanna Izewska, Mary Coffey, Pierre Scalliet, Eduardo Zubizarreta, Tania Santos, Ioannis Voulidis, Peter Dunscombe
Non-AAPM work

i.treatsafely
PRACTICAL LEARNING FOR RT PROFESSIONALS

Who are we?

Peter Dunscombe, Ph.D., FCCPM, FAAPM, FCOMP

In 2001, he moved to Calgary as Director of Medical Physics and Professor of Oncology at the Tom Baker Cancer Centre, where he is responsible for the medical physics support of the radiation treatment program as well as CAMPEP accredited graduate, certificate and residency programs.

His professional interests include error management, the economics of radiation treatment, objective approaches to quality assurance and the training and education of medical physicists. Peter also collaborated with Todd on the first textbook in radiotherapy that is dedicated to quality and safety.

What is i.treatsafely?

i.treatsafely was created to provide easy access to high quality, practical learning videos. It’s a vetted, peer-to-peer learning site dedicated to both general education as well as application-specific training. Because it’s peer-to-peer, you get real clinical information from people who actually use the information clinically. This is good stuff!

What’s our mission?

Our mission is to improve Quality and Safety in Radiation Therapy by offering high-quality learning videos that deliver practical clinical and QA skills.

Derek Brown, Ph.D., FCCPM

Derek is a Medical Physicist at the Tom Baker Cancer Centre and Adjunct Assistant Professor in the Departments of Oncology and Physics and Astronomy at the University of Calgary where he started in 2008. He is Co-Director of the University of Calgary CAMPEP accredited graduate specialization in Radiation Oncology Physics and continues to develop on-line modules for advanced education of radiation medicine professionals in specialized techniques such as LDR prostate brachytherapy.

Derek also chairs the multidisciplinary Quality Improvement Committee in the Radiation Treatment Program at the Tom Baker Cancer Centre.

Sasa Matic, Ph.D., DABR, FAAPM

Sasa is currently a Professor and Co-Director of the Medical Physics Division at the Department of Radiation Oncology, Washington University School of Medicine, Mallinckrodt Institute of Radiology, St. Louis Missouri where he has been since 1996. Significant portions of Sasa’s clinical and research activities are concentrated around patient safety, treatment quality and process improvement.

Sasa has also participated in numerous activities with AAPM, ASTRO, and IAEA on improving patient safety and treatment quality across the field. He actively participates in several formal radiation oncology education programs where he promotes these topics as well.

https://i.treatsafely.org
5. Committee meeting at AAPM: 7/14, 2:00-3:00

6. **Business Arising and not on the Agenda**