SPG: A Practical Subcommittee of the AAPM Professional Council

Brent C. Parker, PhD
Director, Division of Physics and Engineering
The University of Texas Medical Branch
Galveston, TX

Origins

• Subcommittee on Practice Guidelines (SPG) initiated in 2007 for two reasons:

  1. AAPM is routinely asked to review or participate in the accreditation and certification processes provided by affiliated organizations
     • Requests are generally directed by staff to a relevant committee, subcommittee or working group
     • Route is not monitored and so the need is apparent for a central resource to serve as the contact point for such requesting organizations

• SPG would be positioned to assign any such requests to one or more relevant groups within AAPM, coalesce their contributions and present a response or report consistent with the mission of the Association
Origins

2. Some of the Task Group reports published by the AAPM present a wide range of performance tests or QA processes that can be completed for a particular modality or process.

- Full-time clinical physicists in medium-size and smaller centers, which generally have more limited resources, often find it difficult to determine the minimum subset of the TG's complete report that is required to ensure consistent high quality given the range of clinical uses at their center.

Origins

- State regulators have, in some instances, unfortunately adopted entire sections of TG reports as regulatory requirements despite the clarification in all TG reports that such use would be inappropriate.

- SPG would be charged with reviewing TG reports prior to publication, and determining which reports would benefit from an accompanying Implementation Guide. For those reports deemed to benefit from such a guide, the SC would be responsible for generating and publishing the Implementation Guide, through a collaborative effort with the originating Task Group.

Original committee charge

- Receive requests for medical physics assistance from other groups relative to their practice or facility accreditation programs or professional certification programs.

- Evaluate the requests for appropriateness and assign them to the appropriate Committee, Sub Committee or Working Group within the Association.

- Receive drafts or comments from the AAPM groups and compose an official response or position to submit to the AAPM Board of Directors.
Original committee charge

- Evaluate all draft Task Group reports prior to publication, to determine whether a Clinical Implementation Guide would be appropriate and of benefit to AAPM members.

- For TG reports deemed to benefit from a Clinical Implementation Guide, generate and publish the Guide through a collaborative effort with the originating TG. The Clinical Implementation Guide should outline the minimum portions of the total TG report that should be implemented to ensure high quality within the scope of clinical services provided.

Structure change

- Proposal for Medical Physics Practice Guidelines (MPPGs) approved by AAPM Board of Directors in August 2011
  - MPPGs are intended to provide the medical community with a clear description of the minimum level of medical physics support that the AAPM would consider to be prudent in all clinical practice settings.

- In 2013, SPG split into 2 subcommittees
  - SPG (new charge)
  - Practice Environment Subcommittee

Structure change

- Practice Environment Charge
  - To oversee AAPM activities which directly impact the practice environment. This includes interaction with corporate affiliates.
  - To coordinate the Professional Council’s review of Task Groups developed by other AAPM Councils in coordination with the staff liaison.
  - For TG reports deemed to benefit from a MPPG, provide recommendation to Subcommittee on Practice Guidelines as an MPPG topic.
Structure change

- New SPG charge
  - Oversee the development of AAPM’s MPPGs. An MPPG should outline the minimum practice standards that should be implemented to ensure high quality within the scope of clinical services provided.
- Assist in the identification of MPPG topics
- Identify and approve the chairs of the approved MPPGs
- Ensure that the process for MPPG is executed in coordination with the staff liaison for MPPGs
- Coordinate with staff lead for MPPGs

Location in AAPM

Who are we?
Structure of SPG

- The SPG leadership structure includes a Chair, a Vice Chair for Imaging Physics Guidelines, and a Vice Chair for Therapy Physics Guidelines.

- Membership includes one standing member each from:
  - Science Council
    - Therapy Physics Committee (TPC)
    - Imaging Physics Committee (IPC)
  - Administrative Council
    - Government and Regulatory Affairs Committee (GRAC)

- Chairs of active MPPGs serve as members of SPG until publication.

MPPGs

- Published reports
  - MPPG #9 SRS & SBRT
    - AAPM Medical Physics Practice Guideline 8.a.: Linear accelerator performance tests
    - AAPM Medical Physics Practice Guideline 6.a.: Performance characteristics of radiation dose index monitoring systems
    - AAPM Medical Physics Practice Guideline 5.a.: Commissioning and QA of Treatment Planning Dose Calculations — Megavoltage Photon and Electron Beams

MPPGs

- Published reports
  - AAPM Medical Physics Practice Guideline 4.a: Development, implementation, use and maintenance of safety checklists
  - AAPM Medical Physics Practice Guideline 3.a: Levels of supervision for medical physicists in clinical training
  - AAPM Medical Physics Practice Guideline 2.a: Commissioning and quality assurance of X-ray-based image-guided radiotherapy systems
  - AAPM Medical Physics Practice Guideline 1.a.: CT Protocol Management and Review Practice Guideline
MPPGs

- Active MPPGs
  - Task Group No. 287 - MPPG #10 Scope of Practice for Clinical Medical Physics
  - Task Group No. 259 - MPPG #7 Medical Physics Extenders (on hold until completion of MPPG #10 – Scope of Practice)

Role of SPG in MPPGs

- Assist in the identification of MPPG topics
  - Regular request for topics from AAPM members
  - Unsolicited suggestions from members
  - Pressure points in clinic
  - Feedback from regulators and accrediting bodies
    - May help with adoption
    - Identify common failure points
  - RO-ILS
  - Parallel new TG reports
  - Other practice guidelines (e.g., ACR)

Role of SPG in MPPGs

- Identify and approve the chairs of the approved MPPGs
  - Short timeline → significant time commitment
  - Manage expectations
    - Chair onboarding document
    - Feedback at regular intervals
  - Timeline goal → 1 year formation to publication
    - Concurrent votes (SPG, CPC, PC)
    - Turnaround time on comments
    - Better instructions to MPPG Chair
    - Consistent formatting and writing rules
Role of SPG in MPPGs

- Ensure that the process for MPPG is executed in coordination with the staff liaison for MPPGs
  - AAPM support integral to MPPG process
    - Financial
    - Personnel

- Communication to AAPM membership
  - Newsletter
  - Chapter meetings
  - Meeting presentations (e.g., standing SCM slot)
  - Webinars
  - White paper

What’s next?

- Fill empty slots on SPG with required members
  - Therapy vice-chair, IPC, TPC

- First MPPGs coming up for first 5-year review
  - MPPG#1 – 9/1/2018; MPPG#2 – 1/1/2019
  - Who will constitute the new group?
  - How long will review/revision take?
  - What will JACMP require for revision publication?
What's next?

- Sunset creates ever-increasing workload for SPG as number of MPPGs increases
  - Increase SPG membership to distribute workload
- Adoption of MPPGs is paramount
  - Marketing to accrediting bodies
  - Add new liaison members: TPAS, IPAS, ACR, ASTRO,…
  - Marketing to regulatory bodies
  - Add new liaison members: CRCPD, GRAC,…
- Review existing TG reports to determine if need MPPG

What's next?

- Identify next MPPG topics
  - Goal is 1 imaging and 1 therapy in parallel
- Metrics to evaluate impact of MPPGs
  - Documentation of adoption of the MPPG by regulatory agencies or accrediting bodies
  - List of publications referencing the MPPG
  - Number of MPPG presentations at regional, national, and international meetings
  - List of publications on implementation of the MPPG

Conclusions

- SPG provides a useful service and products to AAPM membership
- Limited resources requires careful selection of future MPPG topics to have most impact
- Need to determine bandwidth on production of new MPPGs and ongoing review of existing ones
- Full impact won’t be felt until MPPGs become adopted with greater regularity
Acknowledgements

- SPG members
  - Jessica Clements, MS
  - Per Halvorsen, MSc
  - Mary Keenan, DMP
  - Arthur Olch, PhD
  - Koren Smith, MS
  - Russell Tarver, MS
  - Sarah Castillo, PhD (guest)
  - Jason Matney, PhD (guest)
- AAPM Staff member
  - Nicholai Wingreen

Thank you!