

LIASON REPORT
ESTRO 27
ANNUAL MEETING OF THE EUROPEAN SOCIETY FOR THERAPEUTIC
RADIOLOGY AND ONCOLOGY

I. Meeting date and location: *September 14-18, 2008, Gothenburg, Sweden*

II. General Aspects

ESTRO meeting this year began with the following six **pre-congress courses**:

- Radiation oncology – the clinical benefits and challenges of molecular targeting
- Dose-volume response relationships in normal tissues
- Stem cell concept, biology and implications for radiation oncology
- Palliative care in oncology (RTT/radiation nurses)
- MR and Pet imaging in radiation oncology
- Integration of research and patient care in the future (RTT/radiation nurses)

The scientific program and the sessions were divided into four **specific program categories**:

- Clinical/disease sites
- Physics and technology
- Radiobiology
- Social, structural, logistics and other aspects of radiation oncology

A unique aspect of the conference was the **satellite symposia**. Every day during around the lunch hour about 65 minutes were assigned to the corporate members in order that they could present high lights of their products and services using speakers from the radiation oncology community as well as their own representative. This year's participants were:

- Accuray
- Elekta
- Tomotherapy
- Dr. Sennewald Medizintechnik
- Varian
- MERCK

Additionally, specific time slots were allocated to recognize the scientific work being carried out in some of the national associations. The participants were:

- French
- Polish
- Spanish
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Scientific program began on Monday September 25. There were up-to eight parallel sessions at some occasions. These were organized under the following subcategories:

- Teaching lectures (Refresher courses)
- Symposia and proffered papers

- Posters
- Awards session

There were 552 oral presentations and an impressive number of 1556 posters could be viewed through out the meeting. The total attendance was more than 3000, a 30% increase compared to the previous meeting. About 82 exhibitors had booths exhibiting their products. There were about 77 companies that participated in technical exhibits.

III. Major Sessions

Primary organization scheme of the meeting is given below:

- A. Teaching lectures
- B. Symposia
- C. Satellite symposium
- D. Proffered papers
- E. Poster discussion
- F. Debates
- F. Award lectures
- G. Young scientists sessions

A summary of daily schedules and itemized subtopics of the meeting is given in Appendix A.

IV. Scientific Advisory Committee for Radiation Physics

Chairperson: D.R. Olsen (N)

Committee members

- | | |
|------------------|---------------------------|
| M. Bidmead (UK) | M. de Carmo Oliveira (PT) |
| W. Bulski (PL) | J. Malicki (PL) |
| B. Davis (CH) | B. McClean (IRL) |
| M.C. Lopes (P) | A. McKenzi (UK) |
| T. Eduardo (E) | T. Knöös (S) |
| RC. Fiorino (I) | H. Nyström (S) |
| R. Garcia (FR) | G. Gagilardi (S) |
| D. Georg (AT) | E. Gershkevitch (EE) |
| B. Heijman (NL) | O. Holmberg (DK) |
| C. Hurkmans (NL) | K.A.Johansson (SE) |
| N. Jornet (SP) | S. Koreman (DK) |
| T. Knoos (SE) | S. Levegrun (DE) |
| T. Lomax (CH) | H. Mayles (UK) |
| B. McClean (IE) | A. Nahum (UK) |
| H. Nystrom (SE) | Y. Seppenwolde (NL) |
| W. Schlegal (D) | D. Thwaites (UK) |

V. Role of the Physics Committee

The Board of European Society appoints the Physics Committee for Therapeutic Radiology and Oncology (ESTRO). The primary purpose of the Committee is:

- to advise the Board on questions related to clinical physics;
- to improve the quality of physics in radiotherapy;
- to organize scientific meetings and working parties under the auspices of the Board, e.g., the Biennial Meeting on Physics in Clinical Radiotherapy;
- to advise on the physics program at ESTRO meetings; and,
- to cooperate with other organizations on clinical physics.

The Physics members were very much interested to have the AAPM members participate in the activities of ESTRO and were equally interested in participating in the activities of AAPM. They wish to continue the collaboration with the AAPM.

Overall, ESTRO continues to organize highly successful meeting with emphasis on teaching and significant scientific and technical content.

VI. Physics Committee Issues

1. Develop, structure and operation of the Physics committee
 - links to wider ESTRO structures
 - membership, representation, nominations, replacements, term
 - horizon scanning (meetings, courses, etc.)
 - horizon scanning (identify developments, topics for pro-active guidance/documents?)
 - links to other organizations (AAPM, EFOMP, etc.) and IAEA, EORTC, etc.
 - links to radiobiology committee
 - links to RTT committee
 - links to brachytherapy committee
 - links to Physics Board members
 - communication, meetings
2. Members to take on specific areas of interest - set up 'virtual' support groups, bring in younger members
3. Need for Vice-chair or Secretary to committee?
4. Younger member involvement generally (link to wider ESTRO initiatives + specific Physics considerations...)
5. Strategies/activities for the future?

6. Physics involvement on ESTRO communication and information platforms/ groups/ committees, e.g. communication group, website group (+ website content/monitoring), newsletter input...

7. General ICT issues at ESTRO

8. Physics (+ other?) booklets... procedures/responsibilities?

9. Meetings

- Future scientific committee (brief report); pre-meeting w/shops?
- Physics meeting in 2007 (brief report)
- IAEA QA meeting
- 2006 World Congress

10. Education...

- input to education developments...
- curriculum review; CPD; recognition of qualifications (+EFOMP)

10a. Physics or physics-content ESTRO course reports

- Basic Physics course; Dose determination; IMRT; IGRT; Imaging
- (+ extra editions in E Europe; + future plans)

10b. ESTRO Course content

- Liaison between course directors and physics representatives on Education Committee
- Need to ensure overlap only where necessary
- Need to include new topics as they arise in existing courses
- Need to ensure new topics for courses are input and pushed (e.g. possible 3D TPS course)
- Risk management?

10c. Wider involvement of ESTRO in teaching courses... outside Europe activities (ex-ISRO...?)

11. Physics or physics-involved ESTRO working parties or with ESTRO nominees

- QASIMODO
- Small field dosimetry; IMRT QA, 3DTPS etc
- BRAPHYQS
- Brachytherapy calibration standards?
- Clinical Audit working party (IAEA; ESTRO)
- ROSIS
- ... others... (e.g. ASTRO connectivity WP...)
- (... ESTRO infrastructure, workload, satellite centres, protons/light ions, IT/grid developments, connectivity, ... etc.?)
- new areas/topics... scientific, professional, multi-disciplinary... ?
- input to ESTRO- EU discussions on new areas

12. QA in ESTRO

- ESTRO-EQUAL... structure, scientific input, promotion...
- IMRT QA
- Clinical trial QA
- Clinical audit development (guidelines for the interpretation of 97/43 for RT in Europe)
- Eur 97/43 implementation follow-up?

13. Reports on areas of mutual interest from

- EFOMP
- AAPM
- IAEA
- EORTC

14. Developments in relationships between ESTRO and other European cancer societies

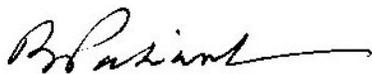
15. Varian, Jack Fowler, etc. awards... nominations...

VII. Overall Remarks

ESTRO physics is an extremely well organized group with focus on teaching, research and clinical applications of modern radiobiological, imaging and treatment delivery tools. Over the last 5 years it has significantly increased its membership of physicists and corporate personnel. It is to some extent due to their aggressive organization of teaching courses in addition to the annual meeting. Every year there are fifteen teaching courses around Europe and developing countries. AAPM should consider organizing similar courses in different regions or state on at, if not monthly, least quarterly basis.

An added special event in the schedule was the focus on regional/national associations. ESTRO schedules sessions for different national organizations (French, Polish, Spanish etc.) to allow for the coordination of their efforts with ESTRO. In the case of AAPM it could be a forum for the Canadian and South American countries as well as for the regional chapters to hold their sessions at the time of the AAPM annual meeting.

Respectfully submitted by



Bhudatt Paliwal, PhD
Liason, ESTRO
Alternate: Wolfgang Tome, PhD

Appendix A

ESTRO 27 ANNUAL MEETING OF THE EUROPEAN SOCIETY FOR THERAPEUTIC RADIOLOGY AND ONCOLOGY

Summary Program

Abstract Spanish - Portuguese and Latin-American Association Day

Monday, September 15, 2008

Teaching lecture

- Evidence based medicine: bladder cancer (Abs. 1)
- Quality systems in radiotherapy (Abs.2)
- Functional imaging and dose painting in prostate cancer (Abs. 3)
- DNA damage repair and signaling responses: new developments and clinical potential (Abs. 4)
- PET and PET/CT technology for RT (Abs. 5)
- Limitations of standard dosimetry methods in modern radiotherapy: from small to novel beams (Abs. 6)
- Acute radiation therapy effects in head & neck cancer (Abs. 7)

Symposium

- BIOCARE (Abs. 8-11)
- Interdisciplinary treatment of locally advanced prostate cancer (Abs. 12-14)
- Shaping the RT future: clinical and technology (Abs. 15-18)
- New radiobiology insights applicable to brachytherapy (Abs. 19-21)
- Cancer stem cells and impact for clinical radiotherapy (Abs. 22-24)
- Biological target volumes and dose painting (Abs. 25-27)
- Challenges in the dosimetry of the new beams (Abs. 28-31)
- Head and neck cancer: skin and mouth care and diet (Abs. 32-34)
- High Risk Prostate Cancer (Abs. 35-38)
- Shaping the radiotherapy future: development of radiation oncology (Abs. 39-41)
- Partial breast irradiation (Abs. 42-44)
- Next steps in molecular targeting for radiotherapy (Abs. 45-48)
- Adaptive strategies in IGRT (Abs. 49-52)
- Tomotherapy and IMAT (Abs. 53-56)
- Use of PET/CT for radiation treatment planning (Abs. 57-59)
- Presidential Symposium (Abs. 60-62)

Proffered paper

Phase III randomised trials (Abs. 63-65)
DNA-repair and signal transduction (Abs. 66-71)
Adapting Optimized Therapy (Abs. 72-77)
Applied dosimetry (Abs. 78-83)
Treatment of cancer in H&N region and CNS (Abs. 84-88)

Poster discussion

Poster Discussion - physics (Abs. 89-109)

Debate

The house believes that IGRT is the treatment of choice for T2 prostate carcinoma in a 60 y old man (Abs. 110-113)

Proffered paper

Clinical Lung (Abs. 114-119)
BT Physics (Abs. 120-125)
Molecular Targeting and Radiosensitization (Abs. 126-131)
Physics Treatment technologies (Abs. 132-137)
Rotational therapy (Abs. 138-143)
Treatment of cancer in the thoracic region (Abs. 144-149)
Quality of Life (Abs. 150-154)

Award lecture

Honorary Members (Abs. 155-157)

Tuesday, September 16, 2008

Teaching lecture

Screening, prevention and vaccination for cervical cancer (Abs. 158)
Target Volume Selection and Delineation in Head and Neck tumors: beyond ICRU definition. (Abs. 159)
3D image guided brachytherapy in head and neck cancer. Techniques and Benefits (Abs. 160)
New developments in cell death: autophagy, senescence and the rest (Abs. 161)
Multimodality imaging and registration (Abs. 162)
Dose verification in advanced radiation therapy - New ESTRO Booklet (Abs. 163)
Evidence based medicine: GI tumours (Abs. 164)

Young scientist session

How to write/submit a paper (Abs. 165-166)

Symposium

Clinical evidence for adjuvant radiotherapy for cervix and endometrial cancer (Abs. 167-169)
Challenges in dose escalation in head and neck radiation oncology (Abs. 170-172)
Advanced Treatment Planning in brachytherapy (Abs. 173-175)
Mechanisms and treatment of normal tissue damage (Abs. 176-178)
Protons/heavy ions/BNCT (Abs. 179-181)
Modern dose calculation methods in radiation oncology (Abs. 182-184)
Management of upper GI tumors (Abs. 185-187)

Young scientist session

Evidence Based Medicine (Abs. 188-190)

Symposium

Definitive treatment in cervix and endometrium cancer: new horizon (Abs. 191-193)
What is the standard of care for unresected locally advanced HNSCC? (Abs. 194-196)
Volume effects in image guided brachytherapy (Abs. 197-199)
Altered fractionation and impact on local control: future developments (Abs. 200-202)
All you need to know about Hadron therapy (Abs. 203-206)
Targeted radionuclide therapies (Abs. 207-209)
Management of lower GI tumors (Abs. 210-212)

Young scientist session

Young Poster Session (Abs. 213-263)
International exchange possibilities (Abs. 264-267)

Proffered paper

Gastro-intestinal Tumors (Abs. 268-273) Head & Neck I (Abs. 274-279)
BT Gynaecology (Abs. 280-285)
Normal Tissue Radiobiology (Abs. 286-291)
Clinical aspects of hadron therapy (Abs. 292-297)
Treatment planning and optimisation (Abs. 298-303)
Treatment of cancer in the pelvic region (Abs. 304-308)
Clinical Validation of Imaging (Abs. 309-314)
Breast cancer (Abs. 315-320)

Debate

This house believes that the treatment of choice for loco-regional recurrence after concomitant chemo-radiotherapy in HNSCC is salvage surgery and post-operative re-irradiation (Abs. 321-323)

Proffered paper

Brachytherapy (Abs. 324-329)

Treatment Techniques (Abs. 330-335)
Physics aspects of Hadron therapy (Abs. 336-341)
Dose Calculation (Abs. 342-347)
Treatment Planning and Verification (Abs. 348-352)
Social structure, risk management and other aspects (Abs. 353-358)

Award lecture

Breur lecture (Abs. 359)

Proffered paper

Highlights of the proffered papers (Abs. 360-362)

Opening of ESRO

Opening of ESRO (Abs. 363-368)

Wednesday, September 17, 2008

Teaching lecture

Biologic basis for re-irradiation and current clinical concepts (Abs. 369)
New irradiation techniques for breast cancer (Abs. 370)

Symposium

MAESTRO European Project: Innovations for planning and delivering of the RT treatment (Abs. 371-374)

Teaching lecture

Molecular diagnosis and prediction: genome wide methods and potential (Abs. 375)
MR imaging technology for radiation oncology (Abs. 376)
The evolution of Linac technology for stereotactic radiosurgery (Abs. 377)
Evidence based medicine: eNS tumours (Abs. 378)

Symposium

Is there still a role for radiotherapy in paediatric oncology? (Abs. 379-381)
Tailoring for breast cancer radiotherapy (Abs. 382-384)
ESMO/ESSO/ESTRO - State of the art in the management of rectal cancer I (Abs. 385-387)
Tumor microenvironment and radiation response (Abs. 388-390)
40 RT and respiratory gating (Abs. 391-394)
Stereotatic body irradiation (Abs. 395-398)
Management of gynaecological tumours (Abs. 399-401)
Advances in the management of malignant glioma (Abs. 402-404)
IMRT for breast cancer: a new standard? (Abs. 405-407)
ESMO/ESSO/ESTRO - State of the art in the management of rectal cancer II (Abs. 408-410)

Molecular imaging: from structures to treatment planning (Abs. 411-413)
Respiratory surrogates and tumour motion (Abs. 414-417)
Biological modelling in radiation oncology (Abs. 418-420)
Late effects of radiation treatment - Psychosocial care (Abs. 421-423)

Award lecture

Regaud lecture (Abs. 424)

Proffered paper

Phase III randomised trials II (Abs. 425-426)
Molecular biology in head and neck cancer (Abs. 427-431)
Prediction and Genomics (Abs. 432-437)

Debate

How much QA should be done for new radiotherapy technologies? (Abs. 438-440)

Proffered paper

Professional Development (Abs. 441-445)

Symposium

GENEPI 2 (Abs. 446-448)

Proffered paper

Prostate cancer (Abs. 449-454)
Head & Neck II (Abs. 455-460)
Target delineation (Abs. 461-466)
Hypoxia and Vasculature (Abs. 467-472)
Motion and uncertainties (Abs. 473-478)
Clinical dose measurements (Abs. 479-484)

Symposium

GENEPI LOW RT (Abs. 485-487)

Award lecture

Varian/Fowler/Accuray (Abs. 488-491)
Van der Schueren Award (Abs. 492)

Thursday, September 18, 2008

Teaching lecture

Evidence based medicine: anal cancer (Abs. 493)
Cancer epidemiology (Abs. 494)
MicroRNA and cancer (Abs. 495)
Impact of new RT technology on margins (Abs. 496)
Evidence based medicine: gynaecological tumours (Abs. 497)
Quality management of ion beam therapy (Abs. 498)
Evidence based medicine: prophylactic cranial irradiation (Abs. 499)

Symposium

New trends in the treatment of gastric cancer (Abs. 500-503)
Waiting time in radiotherapy - Does it matter? (Abs. 504-508)
Combining radiotherapy and immunotherapy: new concepts (Abs. 509-511)
Revisiting the concept of margins in treatment planning (Abs. 512-514)
Management of CNS tumours (Abs. 515-517)
Quality aspects of IGRT (Abs. 518-521)
Omics, 4D and PET in radiotherapy for stage I-III NSCLC (Abs. 522-525)
New trends in the treatment of pancreatic cancer (Abs. 526-528)
Evidence based IMRT (Abs. 529-532)
Radiation-induced secondary cancer: revisiting the field (Abs. 533-535)
Treatment plan optimisation (Abs. 536-538)

Proffered paper

Treatment of prostate cancer (Abs. 539-544)

Symposium

Reliability of IGRT (Abs. 545-547)
Treatment individualization in patients with SCLC treated by radiation therapy (Abs. 548-550)

Debate

Will all radiation therapy be proton therapy in 10 years from now? (Abs. 551-552)

Posters

Clinical/Disease sites: Brachytherapy techniques (Abs. 553-581)
Clinical/Disease sites: Breast (Abs. 582-631)
Clinical/Disease sites: CNS (Abs. 632-674)
Clinical/Disease sites: Gastrointestinal tumors (Abs. 675-738)

Clinical/Disease sites: Gynaecological tumours (Abs. 739-771)
Clinical/Disease sites: Head and neck (Abs. 772-859)
Clinical/Disease sites: Lung (Abs. 860-916)
Clinical/Disease sites: Other tumor sites (Abs. 917-932)
Clinical/Disease sites: Others (Abs. 933-947)
Clinical/Disease sites: Paediatrics (Abs. 948-953)
Clinical/Disease sites: Palliation/Supportive care/Patient support (Abs. 954-975)
Clinical/Disease sites: Prostate (Abs. 976-1085)
Clinical/Disease sites: Sarcoma, (Abs. 1086-1094)
Clinical/Disease sites: Target and volume definition and delineation (Abs. 1095-1130)
Physics and technology: Adaptive and image/dose guided RT (Abs. 1131-1185)
Physics and technology: Applied dosimetry e.g. EPID, Gel, quality assurance (Abs. 1186-1239)
Physics and technology: Basic dosimetry and detectors (Abs. 1240-1260)
Physics and technology: Dose calculations (monitor calc, Monte Carlo, TPS) (Abs. 1261-1302)
Physics and technology: Optimization and dose planning (Abs. 1303-1333)
Physics and technology: Others (Abs. 1334-1344)
Physics and technology: Patient immobilization/Positioning (Abs. 1345-1374)
Physics and technology: Protons and ions (Abs. 1375-1383)
Physics and technology: Treatment techniques, modalities and technology (Abs. 1384-1422)
Radiobiology: Combined chemo/targeted agents and radiotherapy (Abs. 1423-1428)
Radiobiology: DNA repair (Abs. 1429-1433)
Radiobiology: Genomics and proteomics (Abs. 1434-1437)
Radiobiology: Hypoxia and angiogenesis (Abs. 1438-1440)
Radiobiology: Normal tissue morbidity (Abs. 1441-1459)
Radiobiology: Others (Abs. 1460-1479)
Radiobiology: Predictive assays/Prognostic factors (Abs. 1480-1498)
Radiobiology: Radiosensitisers (Abs. 1499-1501)
Radiobiology: Signal transduction (Abs. 1502)
Radiobiology: Time dose fractionation (Abs. 1503-1510)
RTT (Abs. 1511-1538)
Social, structural, logistics and other aspects of RO : Education and training (Abs. 1539-1545)
Social, structural, logistics and other aspects of RO : Others (Abs. 1546-1548)
Social, structural, logistics and other aspects of RO : Risk and quality management (Abs. 1549-1556)