GHENT UNIVERSITY SYMPOSIUM 2017

Ghent,
February 3-4, 2017
09.00-10.30 Quality & Safety

09.00-09.30 Invited: National Radiotherapy Datasets: an international review.
   K. Le Calvez, Charing Cross Hospital, London, UK
09.30-10.00 Invited: Quality Management in Belgium, an overview.
   P. Scalliet, Cliniques Universitaires Saint-Luc, Brussels
10.00-10.30 Invited: Health physics: legislative revision.
   A. Janssens, FANC, Brussels

10.30-11.00 Coffee Break (Peristilium & Foyer)

11.00-12.30 Dose Management Software and personalized dosimetry

11.00-11.15 Introduction: Challenges for individualized patient dosimetry in X-ray imaging.
   K. Bacher, UGent, Ghent
11.15-12.05 Dose Management Software and personalized dosimetry. The Industry Perspective
   11:15-11:25: Philips (DoseWise)
   11:25-11:35: Siemens (Teamplay)
   11:35-11:45: GE (DoseWatch)
   11:45-11:55: Bayer (Radimetrics)
   11:55-12:05: Qaelum (TOM)
12.05-12.30 Discussion

12.30-14.00 Lunch (Peristilium & Foyer)

14.00-15.30 EU BSS implementation in clinical practice

14.00-14.30 Invited: The changing landscape of molecular radiotherapy.
   G. Flux, Royal Marsden Hospital & Institute of Cancer Research, Sutton, UK
14.30-15.00 Invited: Optimization strategies in Radiology.
   H. Bosmans, UZ Leuven/KU Leuven, Leuven
15.00-15.30 Invited: Impact of BSS in radiotherapy.
   F. Vanhoutte, AZ Delta, Roeselare

15.30-16.00 Coffee Break (Peristilium & Foyer)

16.00-17.30 General Assembly
ACADEMIIERAADZAAL

09.00-10.30 Radiology 1 Session
  09.00-09.15 AEC performance testing in mammography: exploration of the AEC region for different distributions of glandular tissue.
    J. Binst et al., UZ Leuven, Leuven
  09.15-09.30 Screen detected cancers versus interval cancers: influence of image modality and breast density.
    L. Timmermans et al., UGent, Gent
  09.30-09.45 Validation of channelized Hotelling observer for digital breast tomosynthesis image quality evaluation.
    D. Petrov et al., KU Leuven, Leuven
  09.45-10.00 The potential win of patient-specific dosimetry.
    A. Dedulle et al., KU Leuven, Leuven
  10.00-10.15 Detectability in grating-based phase-contrast imaging.
    J. Vignero et al., KU Leuven, Leuven
  10.15-10.30 Implementation and validation of a methodology to simulate chest radiographic images.
    S. Rodríguez Pérez et al., SCK•CEN/KU Leuven, Mol/Leuven

10.30-11.00 Coffee Break (Peristilium & Foyer)

11.00-12.30 Nuclear Medicine Session
  11.00-11.30 Invited: Perspectives in nuclear medicine imaging instrumentation.
    S. Wailrand, Cliniques Universitaires Saint-Luc, Brussels
  11.30-11.45 Quality assurance of activity administration in Selective Internal Radiation Therapy (SIRT).
    H. Levillain et al., Jules Bordet Institute, Brussels
  11.45-12.00 Towards a quality assurance for dosimetry in fractionated molecular radiotherapy (MRT).
    M. Gwennaëlle et al., Jules Bordet Institute, Brussels
  12.00-12.15 Quality control of low dose CT for attenuation correction purpose: first trials.
    J. Nens et al., ziekenhuis Oost-Limburg, Genk
  12.15-12.30 Defining a reference organ for tumour thresholding on 68Ga-DOTATATE PET/CT.
    M. Gwennaëlle et al., Jules Bordet Institute, Brussels

12.30-14.00 Lunch (Peristilium & Foyer)

14.00-15.30 Radiotherapy 1 Session
  14.00-14.30 Invited: MRI-only radiotherapy: Are we ready?
    N. Reynaert, Centre Oscar Lambret, Lille, France
  14.30-14.45 External clinical dosimetry audit for IMRT and VMAT treatments using a transmission detector: methodology and preliminary results
    M. Tomsej et al., CHU de Charleroi, Charleroi
  14.45-15.00 BEldART-3 a national mailed audit program for Stereotaxy.
    B. Yalvac et al., UHasselt, Diepenbeek
  15.00-15.15 Monte Carlo dose calculation of VMAT clinical treatment plans for Novalis TrueBeam STx linac using PRIMO.
    A. Sottiaux et al., CHU de Charleroi, Charleroi
  15.15-15.30 Analysis of the PTW Quickcheck Webl ine.
    Z. Paquier et al., ULB, Brussels

15.30-16.00 Coffee Break (Peristilium & Foyer)
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CEREMONIEZAAAL

SATURDAY

09.00-10.30 Radiotherapy 2 Session

09.00-09.15 Two-step verification of dose deformation in presence of large inter-fraction changes during locally advanced cervix cancer RT. A. Gulyban et al., CHU de Liège, Liège

09.15-09.30 Assessment of the clinical value of off-line adaptive strategies for tomotherapy treatments. D. Dumont et al., UCLouvain, Brussels

09.30-09.45 Small field dosimetry using Gafchromic EBT3 films: the impact of the Region of Interest and of the scanning resolution. A. Girardi et al., UZ Brussel, Brussels

09.45-10.00 The use of microDiamond and diode SRS in dosimetry: commissioning and patient specific measurements. A. Delor et al., Cliniques Universitaires Saint-Luc, Brussels

10.00-10.15 Beam modeling a TrueBeam in RayStation. J. Vandecasteele et al., AZ St Lucas, Ghent

10.15-10.30 Electron Skin Irradiation: refinement the multi field technique in supine/prone position: part II. G. Pittomvils et al., UZ Gent, Ghent

10.30-11.00 Coffee Break (Peristilium & Foyer)

11.00-12.30 Radiotherapy 3 Session

11.00-11.30 Invited: Automated treatment planning: applications and the role of physicists. B. Heijmen, Erasmus University, Rotterdam, The Netherlands

11.30-11.45 Biologically Effective Dose Volume Histogram (BEDVH) based comparison of sequential and simultaneously integrated boost techniques: Proof of concept using a planning study on prostate cancer. A. Gulyban et al., CHU de Liège, Liège

11.45-12.00 Dose painting optimisation for VMAT treatments. A. Hermans et al., ULB, Brussels

12.00-12.15 Single vs. Multi-atlas auto-segmentation for prostate RT and lung SBRT: Comparison of two commercial systems. D. Dechambre et al., CHU de Liège, Liège

12.15-12.30 Variability of breathing-induced tumor motion: 4DCT – a source of misguiding information? J. Dhont et al., UZ Brussel, Brussels

12.30-14.00 Lunch (Peristilium & Foyer)

14.30-15.45 Radiotherapy 4 Session

14.30-14.45 Information Technology in Radiation Oncology: questions we should be able to answer. M. Coevoet et al., Cliniques Universitaires Saint-Luc, Brussels

14.45-15.00 Implementing stereotactic RapidArc treatments into clinical routine: from algorithm configuration to treatment validation. F. Sergent et al., CHU UCL NAMUR, Namur

15.00-15.15 3D Dosimetry of Intra-Operative Radiotherapy (IORT) with Electron Beams using GEANT4. H. Alhamada et al., Jules Bordet Institute, Brussels


15.30-15.45 Deep Inspiration Breath Hold (DIBH) treatment using Volumetric Modulated Arc Therapy calculated with Monaco treatment planning system: a reviewed template. O. Koshariuk et al., Jules Bordet Institute, Brussels

15.45-16.15 Coffee Break (Peristilium & Foyer)

16.15-16.30 Awards & Closing
Invited: The use of model observers for clinically relevant dose optimization in computed tomography.
N. Ryckx, Centre Hospitalier Universitaire Vaudois, Lausanne, Switzerland

A dose comparison study between CBCT and MSCT scanners for two clinical cases via Monte Carlo simulations: orthognathic treatment planning and temporal bone acquisitions.
A. Stratis et al., KU Leuven, Leuven

A human cadaver study to evaluate automatic image quality assessment in chest CT.
C. Franck et al., UGent, Ghent

Computed tomography of the thorax: image quality assessment with different test objects.
H. Vancoetsem et al., KU Leuven, Leuven

Improved Patient-to-Patient Aortic Enhancement Uniformity in Cardiac CT Angiography with an Individualized Contrast Medium Injection Protocol.
L. Delombaerde et al., KU Leuven, Leuven

Evaluation of five parameter versus three parameter automatic dose rate control for an interventional cardiology x-ray imaging system.
M. Dehairs et al., UZ Leuven/ KU Leuven, Leuven

The impact of dual axis rotational coronary angiography (DARCA) on patient and staff exposure while using novel x-ray imaging technology.
D. Buytaert et al., UGent, Ghent

Applicability testing of a 3D structured phantom for performance evaluation of breast tomosynthesis.
L. Vancoillie et al., KU Leuven, Leuven

The effect of protective tools on the brain dose of interventional cardiologists/radiologists.
E. Honorio da Silva et al., SCK•CEN / UZ Brussel, Mol/Brussels

Implementation of a hybrid superfast Monte Carlo-Pencil beam dose optimizer for proton therapy.
A.M. Barragan Montero et al., UCLouvain, Brussels

Can bolus range shifting improve plan quality in the IMPT of head and neck cancer?
S. Michiels et al., KU Leuven, Leuven

Simulate baseline shift uncertainties to improve robustness of proton therapy treatments.
K. Souris et al., UCLouvain, Brussels

Interuniversitary ParTICle proton therapy center in Leuven.
T. Depuydt et al., UZ Leuven, Leuven

Water calorimetry in a pulsed PBS proton beam.
S. Rossomme et al., UCLouvain, Brussels
• Video Launching during Irradiation – an alternative to anesthesia in pediatric patients?
  C. Palhetinha Aguas, P. Humblet, L. Renard, A. Vaandering, V. Roosen, M. Coevoet.

• Low-budget on-board camera solution to improve safety during radiation therapy
  C. Devroye, T. Depuydt

• IMRT in the breast cancer

• Evaluation of the Delivery Analysis tool for patient-specific verification on the new Accuray Radixact machine
  A. Girardi, T. Gevaert, C. Jaudet, M. Boussaer, M. Burghelea, T. Reynders, M. De Ridder

• When RayStation and Mosaiq meet a TrueBeam
  Eline De Schepper, Joke De Rouck, Nathalie Deman, Jan Vandecasteele