

Facility Questionnaire for EORTC members

Completion of this information is mandatory

Name of person submitting this questionnaire

Function

e-mail address

Name of center

City

Reasons for filling the questionnaire

Application for new institutional membership

Participating in new study requiring QA If yes, give the study number

Annual up-date

I. Administrative Data

Institution

Address

City Post code

Country

EORTC No Enter 0 if you don't have it yet

Telephone

Fax No.

Hospital/Department website

	Responsible Radiation Oncologist*	e-mail
GU	<input type="text"/>	<input type="text"/>
GI	<input type="text"/>	<input type="text"/>
GYN	<input type="text"/>	<input type="text"/>
Lung	<input type="text"/>	<input type="text"/>
H&N	<input type="text"/>	<input type="text"/>
Brain	<input type="text"/>	<input type="text"/>
Breast	<input type="text"/>	<input type="text"/>
Other	<input type="text"/>	<input type="text"/>

	Responsible Physicist*	e-mail
GU	<input type="text"/>	<input type="text"/>
GI	<input type="text"/>	<input type="text"/>
GYN	<input type="text"/>	<input type="text"/>
Lung	<input type="text"/>	<input type="text"/>
H&N	<input type="text"/>	<input type="text"/>
Brain	<input type="text"/>	<input type="text"/>
Breast	<input type="text"/>	<input type="text"/>
Other	<input type="text"/>	<input type="text"/>

*please mark the contact persons with an asterisk

Status of Dep./Hosp. Public University Private

If private, affiliation ?

Is your centre presently involved in clinical trials

If yes approximately how many patients per year

In how many trials of the EORTC ROG Group

Number of new patients treated per year

Number of retreated patients per year

Staffing level (fulltime equivalent (FTE))

Number of fulltime Radiation Oncologists

Number of Radiation Oncologists in training

Number of fulltime qualified Physicists

Number of Physicists in training

Number of Radiation Technologists

Number of Radiation Technologists in training

Patient workload

Total number of complete courses of treatment per year

Total number of treatment sessions* per year

Total number of fields per year

Average number of patients per day per linac

Number of Radiation Technologists per treatment unit (present at the time of treatment)

*session = a patient's visit for a radiation treatment

II. Data Acquisition and Transfer for Treatment Planning

(a) Computer Tomography

Do you have a dedicated scanner? Is this a CT-SIM ?

Do you have access to a scanner?

Manufacturer

Model

Maximal Image matrix size available pixel

Minimum slice thickness available mm

DICOM format for

Relevant QA (Comment)

(b) Magnetic Resonance Imaging

Do you have a dedicated scanner?

Do you have access to a scanner?

Manufacturer

Model

Maximal Image matrix size available pixel

Minimum slice thickness available mm

=> Distortion Correction?

Scan in treatment position

DICOM format for

Relevant QA (Comment)

(c) Positron Emission Tomography

Do you have a dedicated scanner? PET PET / CT

Do you have access to a scanner? PET PET / CT

Manufacturer

Model

On site cyclotron

Which tracers do you have access to

Maximal Image matrix size available for CT pixel

Minimum slice thickness available mm

Scan in treatment position

DICOM format for

Relevant QA (Comment)

III. 3D Treatment Planning System

a) External beam

Number of treatment planning systems

Please give here data on your most advanced TPS

Manufacturer

Model

Software Version

Year of installation

Please inform the Data Center of each software update

i) Conformal Planning

Algorithms available Pencil beam
 Convolution algorithm
 Collapsed cone
 Other, please specify

What proportion of your radical patients gets a CT-based treatment plan %

Image registration for PET
 MRI
 US

DVH calculation Cumulative Differential

Ability to sum dose plans
export DVH as Table Graph

DRR

Beam's Eye View

Export of DRR to verification system

Electronic Image format (JPG, TIF,...)

ii) Data Import / Export

Format

DICOM

DICOM RT

Data transfer

via Internet

via CD/DVD possible

Transfer Protocol RTOG

FTP

List other transfer type

Relevant QA (Comment)

Further TPS

Manufacturer

Model

Year of installation

Software Version

Manufacturer

Model

Year of installation

Software Version

Manufacturer

Model

Year of installation

Software Version

Manufacturer

Model

Year of installation

Software Version

b) Brachytherapy (including treatment units)

Number of units TPS Treatment units

i) Most recent TPS

Manufacturer

Model

Year of installation

Software Version

ii) After-loading System

HDR

PDR

LDR

Permanent Seed implant

Please give here data on your most recent treatment unit

Manufacturer

Model
Year of installation
Software Version
Image registration for GTV definition PET
 MRI
 US
DVH calculation Cumulative Differential
DVH transfer as Table Graph
Calculation of
Conformity Index
Equivalent Uniform Dose (EUD)
Biologically Equivalent Dose (BED)

iii) Data Import / Export

Format
DICOM
DICOM RT
Data transfer
via Internet
via CD/DVD possible
other
Transfer Protocol RTOG
 FTP
Relevant QA (Comment)

Further Systems

Manufacturer
Model
Year of installation
Software Version
Manufacturer
Model
Year of installation
Software Version

IV. Treatment Simulation

Number of units RX-Simulator CT-Simulator

Please give here data on your most advanced simulation unit

Manufacturer

Model

Year of installation

Type of unit

Conventional Simulator

CT-Simulator

Simulator-CT Cone Beam-CT

Virtual Simulation

Further Systems

Image Format

DICOM

DICOM RT

Data transfer

via Internet

via CD/DVD possible

Please specify CD/DVD format

Relevant QA (Comment)

Further simulation units

Manufacturer

Model

Year of installation

Software Version

Manufacturer

Model

Year of installation

Software Version

Manufacturer

Model

Year of installation

Software Version

V. Treatment Delivery

Number of Treatment units LinAc Co-60 Tomotherapy Gamma Knife

Linear accelerator

Please give here data on your most advanced Treatment unit

Manufacturer

Model

Year of installation

Nominal energies
 Photons lowest highest
 Electrons lowest highest

Treatment Technique
 Conformal RT
 Stereotactic RT
 Intensity Modulated IMRT

Field shaping
 Blocks
 MLC central leaf size mm

Image device for set-up verification (EPID, CT, kV)
 Electronical Portal Imaging Device (EPID)
 any form of CT
 kV-imager on-board or orthogonal

Relevant QA (Comment)

Photon Output times per month

Photon Energy times per month

Photon Homogeneity (Flatness/Symmetry) times per month

Electron Output times per month

Electron Energy times per month

Electron Homogeneity (Flatness/Symmetry) times per month

Mechanical alignment times per month

Calibration

What is your calibration point

low Energy photons Gy in cm depth at cm SSD

high Energy photons Gy in cm depth at cm SSD

Participation in dosimetry intercomparisons for photons: this is **mandatory** and documents have to be submitted along with the Facility Questionnaire.

<input type="text"/>	ESTRO-EQUAL	Year of last audit	<input type="text"/>
<input type="text"/>	IAEA		<input type="text"/>
<input type="text"/>	RPC		<input type="text"/>
<input type="text"/>	National		<input type="text"/>
<input type="text"/>	Regional		<input type="text"/>

others

Participation in dosimetry intercomparisons for electrons: this is **mandatory** and documents have to be submitted along with the Facility Questionnaire.

<input type="checkbox"/>	ESTRO-EQUAL Year of last audit	<input type="checkbox"/>
<input type="checkbox"/>	IAEA	<input type="checkbox"/>
<input type="checkbox"/>	RPC	<input type="checkbox"/>
<input type="checkbox"/>	National	<input type="checkbox"/>
<input type="checkbox"/>	Regional	<input type="checkbox"/>

others

Co⁶⁰ units (latest acquisition only)

Manufacturer

Model

Year of installation

SAD

Relevant QA (Comment)

Dose Rate times per year

Mechanical alignment times per year

Linear Accelerator

Please give here data on the other 4 most recent acquisitions

Manufacturer

Model

Year of installation

Energies Photons lowest highest
 Electrons lowest highest
 EPID MLC IMRT Stereot.

Manufacturer

Model

Year of installation

Energies Photons lowest highest
 Electrons lowest highest
 EPID MLC IMRT Stereot.

Manufacturer

Model

Year of installation

Energies Photons lowest highest
 Electrons lowest highest

EPID MLC IMRT Stereot.
Manufacturer
Model
Year of installation
Energies Photons lowest highest
Electrons lowest highest
 EPID MLC IMRT Stereot.

Co⁶⁰ units

Please give here data on the other Co60 units

Manufacturer
Model
Year of installation
SAD
Manufacturer
Model
Year of installation
SAD

List of other equipment available

VI. Patient Setup and Immobilisation

1) **Manufacturer/Model: for Breast**
2) **Manufacturer/Model: for Prostate**
3) **Manufacturer/Model: for H&N**
4) **Manufacturer/Model: for Lung (thorax)**
If developed "in house", please, describe

VII. Treatment Set-up and Verification

Patient Set-up

Laser

Reflectors / IR camera
 orthogonal kV imager
 other TV set-up / check
 other

Verification by

EPID detector with
 Fluorescent screen
 Ion chamber array
 aSi panel
 aSi panel high resolution
CT with cone beam CT
kV imager with
 On board kV imager
 Orthogonal kV imager
 optically (reflectors or similar)
Film

Target localisation (image guided RT)

localisation by

Ultrasound
 On board kV imager
 Orthogonal kV imager
 CT scanner in treatment room
 Cone beam CT
 other

Verification of patient treatment

Portal imaging: describe protocol briefly

How often is a treatment chart review carried out

Frequency

By physicist

By technologist

How do you compensate for treatment interruption

(e.g machine maintenance, calender holiday...)

VIII. In vivo Dosimetry

When is this used: describe protocol briefly

Using

 Diodes

 Ion chambers

 TLD

 EPID

 other

IX. Networking and Clinic Information System

Network Data transfer speed 10 MB/sec 100 MB/sec

CIS Manufacturer/Model

R&V-System

Import of set up data from

 TPS

 Simulator

 manually entered

 other

Import of verification image from

 TPS (DRR)

 Simulator

 Virtual Simulator

 other

Export of treatment parameters to TPS

Export Digital Imaging Data

Image transfer via network

Automatic setup with R&V on Treatment unit

Automatic recording with R&V

Thank you for completing the EORTC ROG Facility Questionnaire. However, to evaluate whether your radiotherapy department meets the requirements for entering patients in EORTC-Radiation Oncology Group trials, the results of the external reference dosimetry audits **must also be provided** (see **question V Treatment Delivery**). The audit should have been carried out within the last 2 years. These (i.e. scanned documents must be sent to the following address:

facilityquest@eortc.be
EORTC Data Center
Avenue E. Mounier, 83 Bte 11
B-1200 Brussels

Belgium

Thank you very much for your cooperation.