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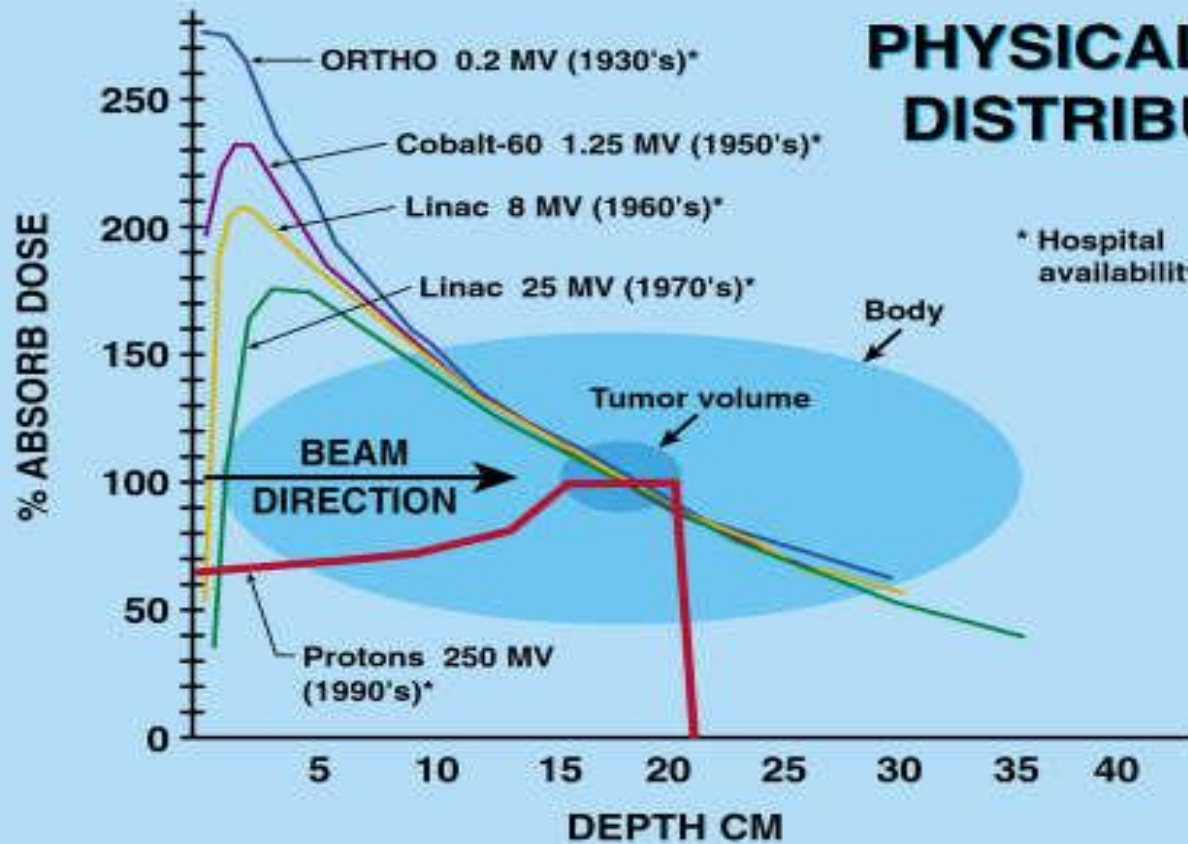


Prof. Damien Charles Weber :: Center for Proton Therapy :: Paul Scherrer Institut

European Particle Therapy Network

Proton Therapy :: EIB – DG SANTE Luxembourg October 22nd 2018

PHYSICAL DOSE DISTRIBUTION



* Hospital availability

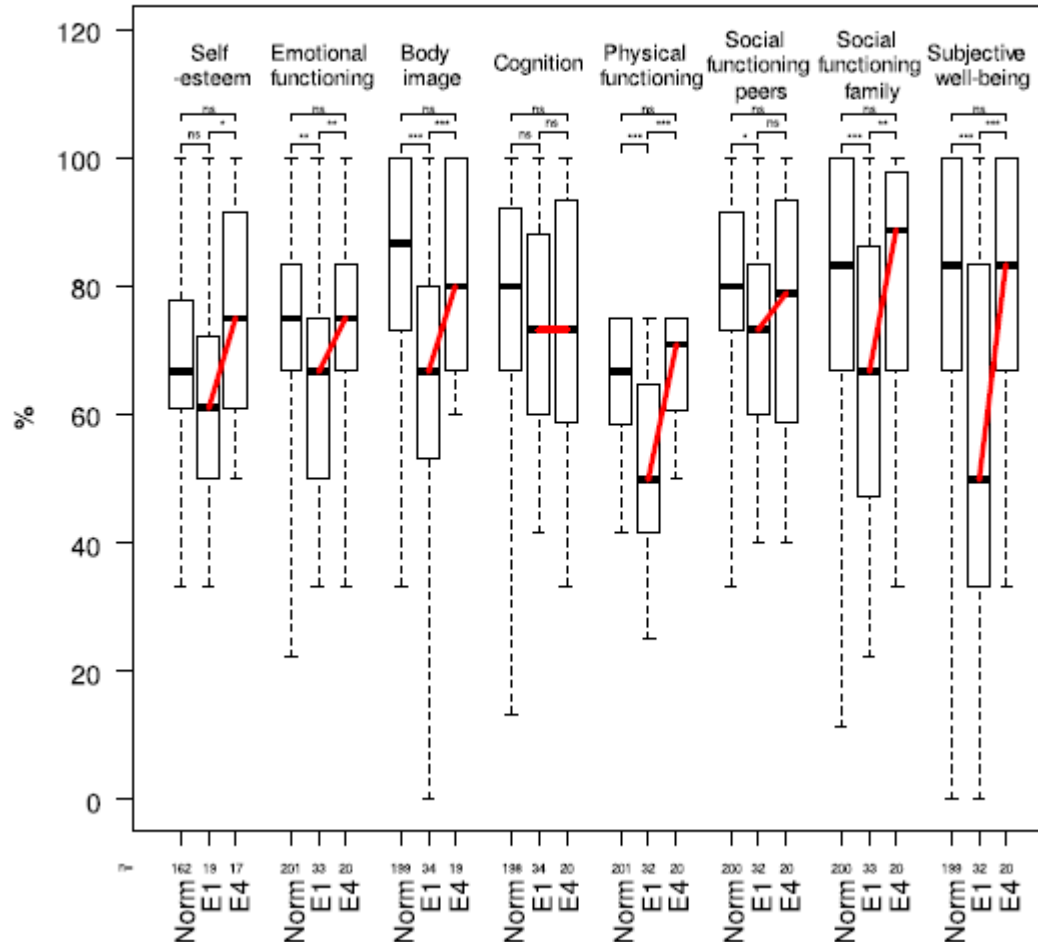
Tumour control and Quality of Life in children with rhabdomyosarcoma treated with pencil beam scanning proton therapy

Dominic Leiser^{a,c}, Gabriele Calaminus^b, Robert Malyapa^c, Beat Bojaxhiu^{a,c}, Francesca Albertini^c, Ulrike Kliebsch^c, Lorentzos Mikroutsikos^c, Petra Morach^c, Alessandra Bolsi^c, Marc Walser^c, Beate Timmermann^d, Tony Lomax^{b,e}, Ralf Schneider^c, Damien C. Weber^{a,c,f,g,*}

^a,
^H
^C

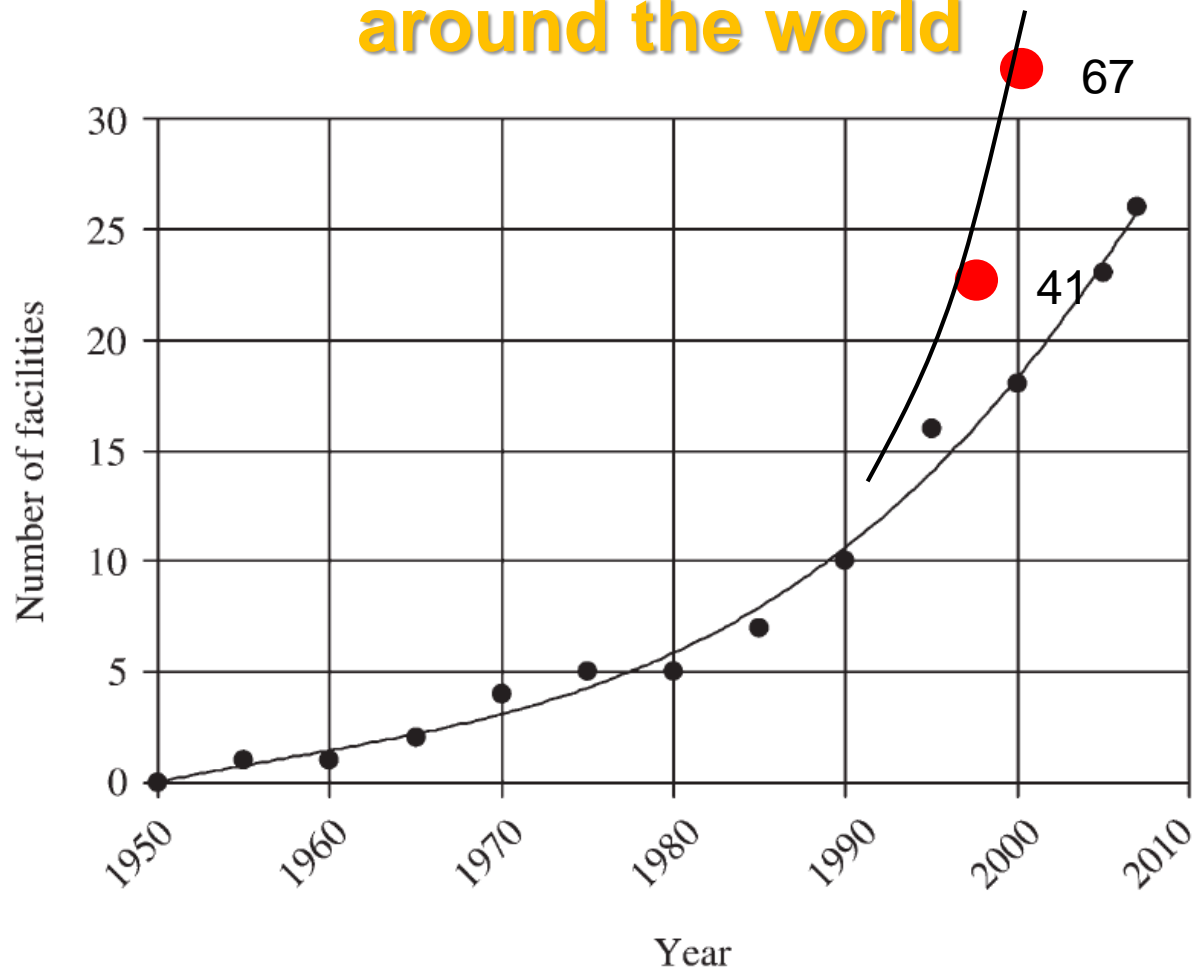
iversity
herapy

Paediatric Quality of Life



Author [ref]	Type of Tumor	Perspective	QALY (years)	Incremental costs associated with protons (\$ US or € EUR)	ICER† (\$ US or € EUR /QALY)	Cost effective* NICE Criterion	Cost effective**
Konski <i>et al.</i> [11]	Prostate cancer (intermediate-risk) Age : 70 years	Health care System	Protons : 8.54 IMRT : 8.12	\$+26,703	\$ +63,578 US	No	Yes
Konski <i>et al.</i> [11]	Prostate cancer (intermediate-risk) Age 60 Years	Health care System	Protons : 9.91 IMRT : 9.45	\$+25,634	\$ +55,726 US	No	Yes
Lundkvist <i>et al.</i> [14]	Prostate cancer (no risk-stratification)	Health care System	-	€+7,953	€ +26,800 EUR	Yes	Yes
Lundkvist <i>et al.</i> [14,15]	Medulloblastoma	Societal	-	€-23,646***	€ -34,622 EUR	Yes	Yes
Lundkvist <i>et al.</i>	Breast Cancer	Societal	-	€ +5,920	€ +34,290 EUR	Yes	Yes

Number of Particle facilities around the world



<http://ptcog.web.psi.ch/>

Particle beam
Center#

Dose reporting

Particle beam Center#	Dose reporting	Total number of patients per center	Annual number of patients	# of FTE ROs per center	Ratio # patients per FTE (RO)	# of FTE MedPh. per center	Ratio # patients per FTE (MedPh.)	# of FTE RTTs per center	Ratio # patients per FTE (RTT)	# of FTE Nurses per center
1	GyRBE									
2	cGy	6048	330	3.2	103.1	5.5	60	11	30.0	1
3	CGE	2800	185	0.3	616.7	2.5	74	1.4	132.1	0
4	CGE	7416	557	2.1	265.2	5	111.4	11.5	48.4	0.5
5	CGE	300	108	6	18.0	4.5	24	16	6.8	3
6	CGE	2548	494	4	123.5	5	98.8	6	82.3	6.5
7	CGE	55	40	2.5	16.0	6	6.7	3	13.3	0
8	CGE	2600	210	2	105.0	3	70	2	105.0	0
9	Gy	1075	350	62	5.6	12	29.2	22	15.9	4
10	Gy	85	72	5	14.4	6	12	6	12.0	3
11	CGE	65	100	1	100.0	4.75	21.1	7.25	13.8	0.45
12	CGE	145	52	6	10.5	6	8.7	16	3.3	4
13	CGE	700	400	6	66.7	6	66.7	10	40.0	4
14	GyE	5301	270	2	132.0	3	90	3	90.0	1
15	GyE	135	45	1	45.0	6	7.5	4	11.3	0
16	GyE	1483	95	1	95.0	1.5	63.3	3	31.7	0
17	GyE	2050.4 (total, 30,756)	220.5	6.9	114.4	5.1	49.6	8.1	42.4	1.8

Carbon ion therapy centers assessed by



ranquinho^c, Alessandra Bolsi^a, Andrzej Kacperek^d,
 ichtiary^{a,g}, Annika Hall^h, Jens Heufelderⁱ, Klaus Herfarth^{j,k},
 thild Krause^m, Roberto Orecchiaⁿ, Vladimir Vondracek^o,
 stina Nilsson^r, Cai Grau^s

CANCER CARE

By Warren Stevens, Tomas J. Philipson, Zeba M. Khan, Joanna P. MacEwan, Mark T. Linthicum, and Dana P. Goldman

Cancer Mortality Reductions Were Greatest Among Countries Where Cancer Care Spending Rose The Most, 1995–2007

Particle Therapy Patient Statistics (per end of 2016)

(Data collected by the Particle Therapy Co-Operative Group)

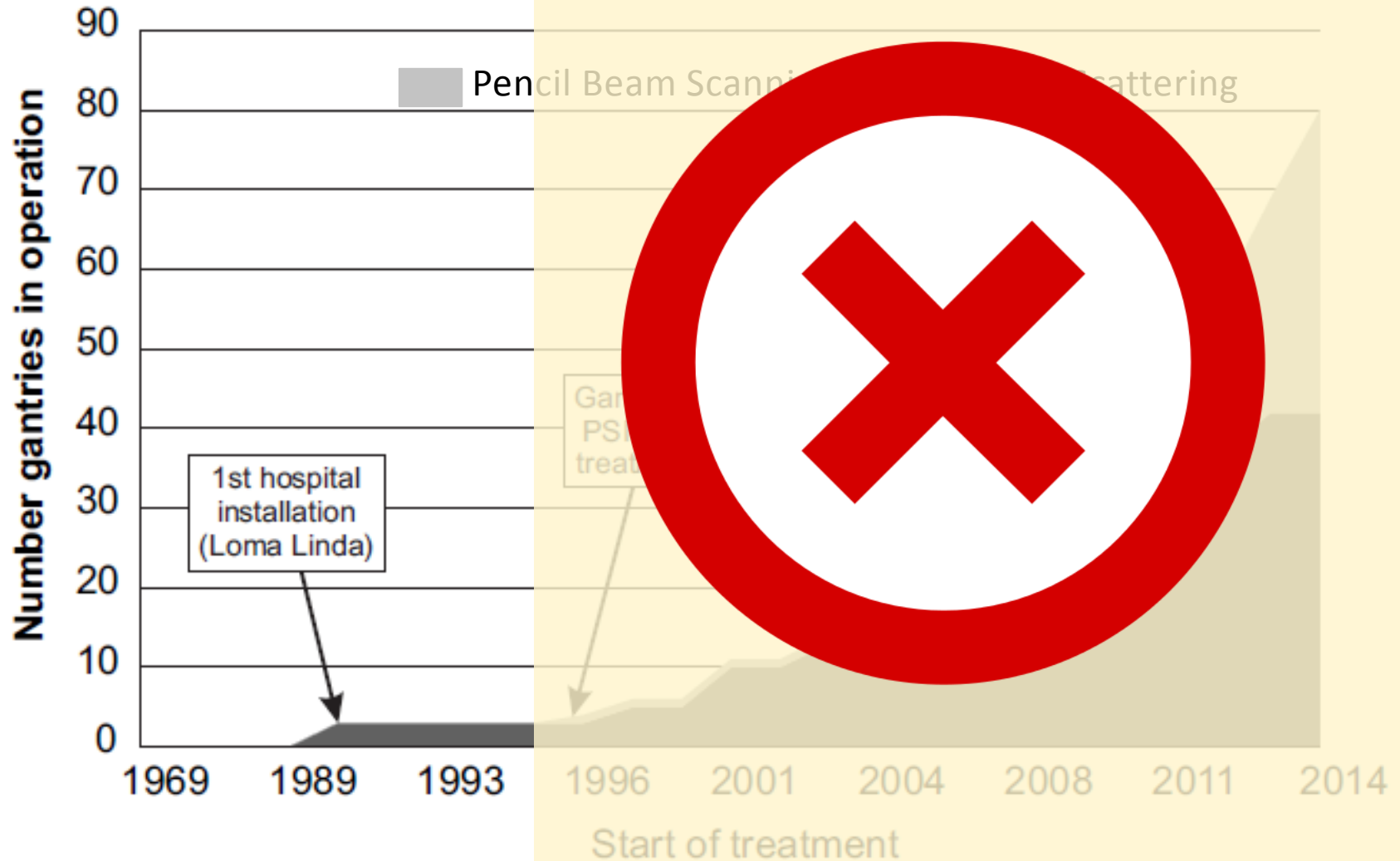
COUNTRY	WHERE SITE	PARTICLE	FIRST (-LAST) PATIENT	PATIENT TOTAL	DATE OF TOTAL
Belgium	Louvain-la-Neuve	p	1991 (-1993)	21	1993
Canada	Vancouver (TRIUMF)	π^-	1979 (-1994)	367	1994
Canada	Vancouver (TRIUMF)	p	1995	196	Dec-16
Czech Rep.	Prag (PTCCZ)	p	2012	1538	Dec-16
China	Wanjie (WPTC)	p	2004	1078	Dec-16
China	Lanzhou	C-ion	2006	213	Dec-16
China	Shanghai (SPHIC)	p	2014	161	Dec-16
China	Shanghai (SPHIC)	C-ion	2014	350	Dec-16
England	Ciatterbridge	p	1989	3020	Dec-16
France	Nice (CAL)	p	1991	5772	Dec-16
France	Orsay (CPO)	p	1991	8131	Dec-16
Germany	Darmstadt (GSI)	C-ion	1997 (-2009)	440	2009
Germany	Berlin (HZB)	p	1998	2975	Dec-16
Germany	Munich (RPTC)	p	2009	3085	Dec-16
Germany	HIT, Heidelberg	p	2009	1523	Dec-16
Germany	HIT, Heidelberg	C-ion	2009	2430	Dec-16
Germany	WPE, Essen	p	2013	673	Dec-16
Germany	UPTD, Dresden	p	2014	300	Dec-16
Italy	Catania (INFN-LNS)	p	2002	350	Dec-16
Italy	Pavia (CNAO)	p	2011	292	Dec-16
Italy	Pavia (CNAO)	C ion	2012	816	Dec-16
Italy	Trento (APSS)	p	2014	204	Dec-16
Japan	Chiba	p	1979 (-2002)	145	2002
Japan	Tsukuba (PMRC, 1)	p	1983 (-2000)	700	2000
Japan	Chiba (HIMAC)	p	1994	138	Dec-16
Japan	Chiba (HIMAC)	C ion	1994	10692	Dec-16
Japan	Kashiwa (NCC)	p	1998	2480	Dec-16
Japan	Hyogo (HIBMC)	p	2001	5392	Dec-16
Japan	Hyogo (HIBMC)	C ion	2002	2527	Dec-16
Japan	WERC	p	2002 (-2009)	62	2009
Japan	Tsukuba (PMRC, 2)	p	2001	4788	Dec-16
Japan	Shizuoka (PTCC)	p	2003	1965	Dec-16
Japan	Koriyama-City (STPTC)	p	2008	3751	Dec-16

Total of all facilities (in and out of operation):	He	2054	1957-1992
	Pions	1100	1974-1994
	C-ions	21580	1994-2016
	Other ions	433	1975-1992
	Protons	149345	1954-2016
	Grand Total	174512	1954-2016

RCTs and particle therapy

RCT requires:

- Current standard technology**
- Current standard delineation process**
- Common understanding of how to do RTQA**
- Large number of patients**
- Large number of institutions (median, >20)**
- Referral limited to a number of centers (risks of bias)**
- Long activation-accruing-FU time (median, 10.5 years)**



Make Proton Therapy more accessible and affordable... and evidence based

- Technological solutions
- Gantry-less solution
- New indications
- **Generate high-quality data**
 - PROS
 - Prospective database
- **Make costing evaluation (real/not simulations)**

- First TC Summer **2014** (PTCOG Europe, New Society, ESTRO)
- **‘Creation of EPTN’ 2015**: First meeting in Brussels April 2015 (M. Baumann :: D. Weber)
- Increase of Participants Network 2016-2017 (C. Grau :: D. Weber)
- **Task Force of ESTRO** February 2017 :: <https://www.estro.org/about-us/governance-organisation/scientific-council/task-forces/european-particle-therapy-network>
- **Meeting in June 2018** combined with ENLIGHT (London; June 25th-28th UCLH) :: <http://enlight.web.cern.ch/events/2018-06-25-enlight-annual-meeting-training-event-25-27-june-2018>
- Next meeting: Brussels April 9th 2019

Particle therapy meeting participation list, 8 April 2015			
Country	Affiliation	Name	Email
Austria	MedAustron	Ramona Mayer	ramona.mayer@medaustron.at
	AIONTREB	Richard Pötter	Richard.Poetter@akhwien.at
Belgium	UZ Leuven	Karin Haustermans	karin.haustermans@uzleuven.be
	KUL/UCL (BE)	Dirk De Ruyscher	dirk.deruysscher@uzleuven.be
	CHU Charleroi	Milan Tomsej	Milan.TOMSEJ@chu-charleroi.be
	EORTC	Vincent Gregoire	vincent.gregoire@uclouvain.be
		Vassilis Golfopoulos	vassilis.golfopoulos@eortc.be
	EORTC ROG	Wilfried Budach	Wilfried.Budach@med.uni-duesseldorf.de
		Philippe Maingon	PMaingon@cgfl.fr
Czech Republic	PTC Prague	Jiří Kubeš	jiri.kubes@ptc.cz
		Vladimír Vondráček	Vladimir.Vondracek@ptc.cz
Denmark	Aarhus	Caí Grau	CAI@ONCOLOGY.DK
		Jens Overgaard	jens@oncology.au.dk
France	CPO-Institut-Curie Proton Therapy Center, Orsay	Rémi Dendale	remi.dendale@curie.net
	ARCHADE hadrontherapy project, Caen	Jean-Louis Habrand	jl.habrand@baclesse.unicancer.fr
Germany	Essen	Beate Timmermann	Beate.Timmermann@uk-essen.de
	Dresden German Cancer Cons. (DKTK), RadOnc Group site Dresden	Michael Baumann	Michael.Baumann@uniklinikum-dresden.de
		Mechthild Krause	Mechthild.Krause@dkfz-heidelberg.de
	HIT and German Cancer Cons. RadOnc group site Heidelberg	Jürgen Debus	juergen.debus@med.uni-heidelberg.de
Italy	CNAO	Roberto Orecchia	Roberto.Orecchia@Cnao.it
		Francesca Valvo	francesca.valvo@cnao.it
		Piero Fossati	Piero.Fossati@Cnao.it

MISSION & VALUES

GOVERNANCE / ORGANISATION

- ▶ **General Assembly**
- ▶ **Board**
- ▶ **Policies**
- ▶ **Executive Council**
- ▶ **Education Council**
- ▶ **Stakeholders' Council**
- ▼ **Scientific Council**
 - ▶ **Committees**
 - ▼ **Task Forces**
 - ▼ **European Particle Therapy Network**
- ▶ **Nominating Council**
- ▶ **Committees activities**
- ▶ **2018 Presidential Elections**

European Particle Therapy Network (EPTN)

The European Particle Therapy Network (EPTN) became a task force of ESTRO in 2017. It was established in 2015 in response to the anticipated increase in the number of particle therapy centres in Europe. In addition, the need to cooperate among centres and integrate particles (i.e. protons and carbons) in the framework of clinical research networks was identified as being of paramount importance. ESTRO, at the time of initiation of the network, was asked to collaborate with EPTN and agreed to facilitate the group.

Particle therapy (PT) is only one part of radiation oncology, and needs to be well aligned with other radiation techniques as well as with general developments in cancer research and patient care. PT offers both new opportunities for providing excellence in cancer care, and new opportunities for high-quality research in the framework of European research networks.

Organisation

The EPTN has three organisers and is composed of 7 working parties (WP) with experts for different topics to further elaborate the particle European discussions. It meets once a year.

EPTN organisers:

- Cai Grau (*Aarhus, DK*)
- Damien Weber (*Villigen, CH*)
- Dietmar Georg (*Vienna, AT*)

LINKS

EPTN Reports
 EPTN Report 2017
 EPTN Report 2016
 EPTN Documents
 WP5 PTPS specifications

DOWNLOADS

ESTRO Vision 2012-2018
 - Full article
 ESTRO Vision 2012-2018
 - Outline
 ESTRO statutes
 ESTRO 30th Anniversary Book
 2017 Annual Report

EPTN WPs

WP	Title	Coordinators
1	Clinical	Hans Langendijk (<i>Groningen, NL</i>)-Leader Roberto Orecchia (<i>Milano, IT</i>) Karin Hausterman (<i>Leuven, BE</i>) Daniel Zips (<i>Tuebingen, DE</i>) Jacques Balosso (<i>Grenoble, FR</i>) Esther Troost (<i>Dresden, DE</i>)
2	Dose assessment, quality assurance, dummy runs, technology inventory	Oliver Jäckel (<i>Heidelberg, DE</i>) Sairos Safai (<i>Villigen, CH</i>) Stefan Menkel (<i>Dresden, DE</i>)
3	Education	Morten Høyer (<i>Aarhus, DK</i>) Marco Schwarz (<i>Trento, IT</i>)
4	Image Guidance in particle therapy	Aswin Hoffmann (<i>Dresden, DE</i>) Alessandra Bolsi (<i>Villigen, CH</i>)
5	TPS in particle therapy	Håkan Nyström (<i>Uppsala, SE</i>) Tony Lomax (<i>Villigen, CH</i>)
6	Radiobiology, RBE	Manjit Dosanjh (<i>Geneva, CH</i>) Bleddyn Jones (<i>Oxford, UK</i>) Jörg Pawelke (<i>Dresden, DE</i>) Martin Prutschy (<i>Zurich, CH</i>) Brita S. Sørensen (<i>Aarhus, DK</i>)
7	Health Economy	Yolande Lievens (<i>Ghent, BE</i>)

RESEARCH
PROJECTS

Report from the third meeting of the European Particle Therapy Network

5 April 2017
Brussels, Belgium



DAMIEN C. WEBER



CAI GRAU

Introduction

The aim of the European Particle Therapy Network (EPTN) is to promote clinical and research collaboration between the rapidly increasing numbers of European particle therapy (PT) centres and to ensure that PT becomes integrated in the overall radiation oncology community.

At the last meeting in 2016 it was decided to combine work packages (WPs) 1 and 3 as there was an overlap on tasks. The combined group is now WP1 clinical and is led by Hans Langendijk. The need to include a WP on education was also raised. EPTN's educational aspects will be covered in WP3.

Since the last meeting in 2016, there has been a change in the organisers of the EPTN. Michael Baumann has stepped down due to other engagements and has been replaced by Cai Grau.

Below are the reports from the work packages discussed at the third meeting in April 2017.

WP1: clinical

The overarching aim of WP1 is to establish a firm basis for evidence-based particle therapy at a European level. Next to this general aim are the following, more specific additional objectives:

1. to identify the methodological issues related to phase 1 and 2 studies as well as to randomised controlled trials comparing photons with particles, and to define general guidelines for the design of clinical trials to overcome these issues;

2. to establish an expert committee to advise and support researchers in Europe in the design of clinical trials in particle therapy;
3. to define the content of uniform prospective data registration programmes on a European level for the most common tumour types treated with particle therapy.

To achieve this, we will establish two tasks: First, all possible methodological problems related to clinical studies on particle therapy will be identified. To this end, an invitational conference has been organised with a number of experts in the field of particle therapy (radiation oncologists and medical physicists), methodology, epidemiology and statistics. Based on the outcome of this conference, a checklist with minimal requirements and quality points will be created that can be used to review future studies and trial protocols. An expert committee (EC) will be founded that can be consulted on the design of future clinical studies on particle therapy. The EC will also be responsible for setting up meetings where future studies can be discussed. It should be noted that ESTRO/EPTN is not going to conduct clinical trials but intends to use existing platforms and organisations, and that external funding is needed to run such trials.

Second, uniform prospective data registration programmes at a European level for the most common tumour types treated with particle therapy will be described. This task is divided into sub-tasks for nine patient groups frequently treated with particle therapy, including central nervous system, head and neck, breast, lung, oesophagus, lymphoma, sarcoma, prostate and ▼

Generate high-quality data



The future of cancer therapy

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1200 Brussels
Belgium
Tel: +32 2 774 1611
Email: eortc@eortc.org
www.eortc.org

Data sharing ParticleCare/EPTN – Agenda of the teleconference

Date and time: Thursday 23 August 2018, 15:00-16:00



Avenue E. Mounier 83/11
1200 Brussels
Belgium
Tel: +32 2 774 1611
Email: eortc@eortc.be
www.eortc.org

E² RADlatE
EORTC-ESTRO RADIOTHERAPY
InfrAsTructure for Europe

Tasks	Months																	
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
Task 1.1: Invitational conference	█	█	█	█	█	█												
Task 1.1: Checklists ready							█	█	█	█	█	█						
Task 1.2: Expert Committee installed												█						
Task 2.1: Prostate	█	█	█															
Task 2.2: Paediatrics	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█	█
Task 2.3: Brain and base of skull	█	█	█	█	█	█												
Task 2.4: Head and neck	█	█	█	█	█	█												
Task 2.5: Breast							█	█	█	█	█	█						
Task 2.6: Lung							█	█	█	█	█	█						
Task 2.7: Oesophagus							█	█	█	█	█	█						
Task 2.8: Sarcoma													█	█	█	█	█	█
Task 2.9: Lymphoma													█	█	█	█	█	█

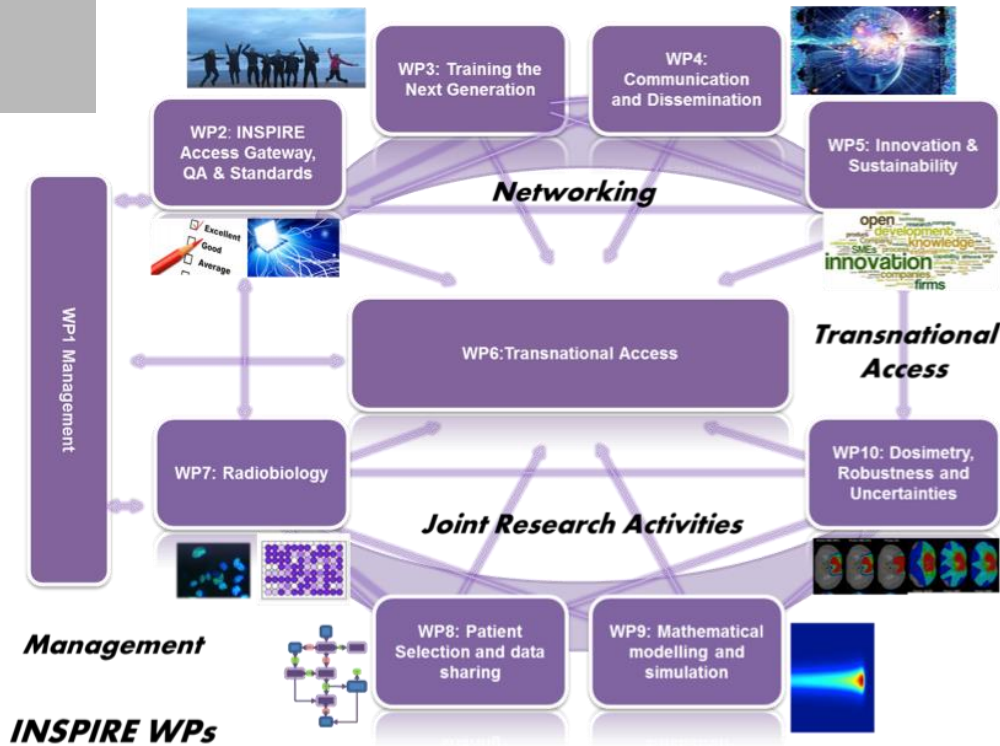
INfraStructure in Proton International REsearch

17 Participating centres



Participant No	Participant organisation name	Country
1 (Coordinator)	University of Manchester (UNIMAN)	UK
2	The Christie NHS Foundation Trust (CHRIS)	UK
3	Academisch Ziekenhuis Groningen (UMCG)	Netherlands
4	Universite De Namur Asbl (UNamur)	Belgium
5	Rijksuniversiteit Groningen (RUG)	Netherlands
6	The Henryk Niewodniczanski Institute of Nuclear Physics , Polish Academy of Sciences (IFJ PAN)	Poland
7	Varian Medical Systems Particle Therapy GmbH (VARIAN)	Germany
8	Nuclear Physics Institute of the Ascr VV1 (NPI-CAS)	Czech Republic
9	Istituto Nazionale Di Fisica Nucleare (INFN)	Italy
10	Lietuvos Sveikatos Mokslu Universitetas (LSMU)	Lithuania
11	Paul Scherrer Institut (PSI)	Switzerland
12	Ion Beam Applications SA (IBA)	Belgium
13	Aarhus Universitet (AU)	Denmark
14	Technische Universitaet Dresden (TUD)	Germany
15	Internet-Simulation Evaluation Envisionn (ISEE)	Italy
16	Institut Curie (IC)	France
17	Skandionclinic (SKANDION)	Sweden

Overview of INSPIRE



- WP1 Management
- WP2-5 Networking
- WP6 TNA
- WP7-10 JRA
- WP11 Ethics
- Milestones & Deliverables
- All centres involved in NA, JRA and ethics



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Radiotherapy and Oncology

journal homepage: www.thegreenjournal.com

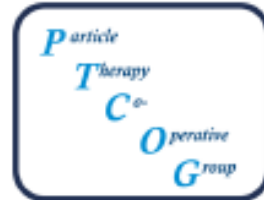
Prospective data registration and clinical trials for particle therapy in Europe

Johannes A. Langendijk^{a,*}, Roberto Orecchia^b, Karin Haustermans^c, Daniel Zips^d, Jacques Balosso^{e,f,g}, Denis Lacombe^h, Yolande Lievensⁱ, Damien Charles Weber^{j,k}, Cai Grau^l, Esther G.C. Troost^{m,n,o}

^a Department of Radiation Oncology, University of Groningen, University Medical Center Groningen, The Netherlands; ^b European Institute of Oncology, Milan, Italy; ^c Department of Oncology, Laboratory of Experimental Radiotherapy, KU Leuven – University of Leuven & Department of Radiation Oncology, University Hospitals Leuven, Belgium; ^d Department of Radiation Oncology, University of Tübingen, Germany; ^e Department of Radiation Oncology and Medical Physics, University Hospital of Grenoble Alpes (CHU-GA); ^f France HADRON National Research Infrastructure, IPNL Lyon; ^g University Grenoble Alpes, France; ^h European Organisation for Research and Treatment of Cancer (EORTC), Brussels; ⁱ Radiation Oncology Department, Ghent University Hospital and Ghent University, Belgium; ^j Center for Proton Therapy, Paul Scherrer Institute, ETH Domain, CH-5232 Villigen; ^k Department of Radiation Oncology, University Hospital of Bern, Switzerland; ^l Department of Oncology, Aarhus University Hospital, Denmark; ^m OncoRay – National Center for Radiation Research in Oncology, Faculty of Medicine and University Hospital Carl Gustav Carus, Technische Universität Dresden, Helmholtz Zentrum Dresden Rossendorf; ⁿ Department of Radiotherapy and Radiation Oncology, Faculty of Medicine and University Hospital Carl Gustav Carus, Technische Universität Dresden; and ^o Helmholtz-Zentrum Dresden – Rossendorf, Institute of Radiooncology – OncoRay, Dresden, Germany



Level	Description	Status	Registration information									
Level I	Minimal dataset	Mandatory	Patient Identification Number		ID-number					Level 1		
			Particle (treating) center		LIST					Level 1		
			Contact person particle center		NAME					Level 1		
			Referring center		LIST					Level 1		
Level II	More extensive dataset but still considered standard of care	Optional	Date of registration		dd/mm/yyyy					Level 1		
			Variables		Time points							
			Baseline	Last day of RT	Follow up (months after last day of RT)							
			dd/mm/yyyy	dd/mm/yyyy	6 M	12 M	24 M	6 M	48 M	60 M	dd/mm/yyyy	dd/mm/yyyy
Level III	More extensive dataset not considered standard of care and requiring medical ethical approval	Optional	<i>Demographic variables</i>									
			Gender	LIST	Level 1							
			Date of birth	dd/mm/yyyy	Level 1							
			Ethnicity	LIST	Level 1							
			Educational Level	LIST	Level 1							
			Relationship status	LIST	Level 1							
			<i>Risk factors</i>									
			Smoking status	LIST	Level 1							
			Alcohol use	LIST	Level 1							
			<i>Baseline clinical factors</i>									
			WHO Performance status	LIST	Level 1	Level 1	Level 1	Level 1	Level 1	Level 1	Level 1	Level 1
			Weight	kg	Level 1							
			Height	cm	Level 1							
			<i>Baseline tumour factor</i>									
			Date of first diagnosis (first pathology)	dd/mm/yyyy	Level 1							
			Tumour site (subtask)	LIST	Level 1							
			<i>Treatment factors index tumour</i>									
			Surgery	YES/NO	Level 1							
			Radiotherapy photons	YES/NO	Level 1							
			Radiotherapy protons	YES/NO	Level 1							
Chemotherapy	YES/NO	Level 1										
Targeted therapy	YES/NO	Level 1										
Immunotherapy	YES/NO	Level 1										
Hormonal therapy	YES/NO	Level 1										
<i>Previous cancers and cancer treatments</i>												
Other cancer	YES/NO	Level 1										
If YES, tumour site:	LIST	Level 1										
If YES, when?	YEAR	Level 1										
If YES, radiotherapy?	YES/NO	Level 1										
If YES, previous radiotherapy, re-irradiation?	YES/NO	Level 1										
<i>Patient-reported outcome measures (PROM)</i>												
EORTC QLQ-C30	questionnaire	Level 1	Level 1	Level 1	Level 1	Level 1	Level 1	Level 1	Level 1			
EUROQOL-5D	questionnaire	Level 1	Level 1	Level 1	Level 1	Level 1	Level 1	Level 1	Level 1			
<i>Tumour follow up</i>												
Local recurrence	YES/NO	Level 1										
If YES, date of local recurrence	dd/mm/yyyy	Level 1										
Regional recurrence	YES/NO	Level 1										
If YES, date of regional recurrence	dd/mm/yyyy	Level 1										
Distant metastases	YES/NO	Level 1										
If YES, date of distant metastases	dd/mm/yyyy	Level 1										
Date of last of follow up	dd/mm/yyyy	Level 1										
Status of last follow up	LIST	Level 1										



MEMORANDUM OF UNDERSTANDING

Between

ESTRO - European Society for Radiotherapy and Oncology
 ESTRO Task Force - European Particle Therapy Network (ESTRO EPTN TF)
 Rue Martin V, 40, 1200 Brussels, Belgium

And

Particle Therapy Co-Operative Group (PTCOG)
 Paul Scherrer Institute, CH 5232 Villigen, Switzerland

This Memorandum of Understanding (MoU) is made by and between the ESTRO TF European Particle Therapy Network (ESTRO / EPTN TF) and the Particle Therapy Co-Operative Group (PTCOG).

The parties hereby agree to the following:

Article 1: Purpose and scope

To promote science, technology and clinical application of particles to cancer patients.
 To promote also a sustained collaboration and exchange between the two societies and to expand their partnerships in the field of particle therapy.

Article 2: Areas of collaboration

The areas of collaboration between ESTRO / EPTN TF and PTCOG include the following initiatives.

However, new initiatives can be added to the MoU as an appendix following mutual agreement.

- Promotion and dissemination of evidence-based particle therapy data, including but not limited to the organization of selected international scientific meetings.
- Coordination of meeting dates of international scientific meetings on particles