SESSIONE 5 - LE SFIDE DELLA RADIOTERAPIA DI PRECISIONE NELLA MALATTIA OLIGOMETASTATICA

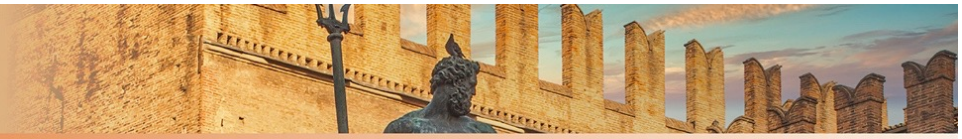
Quali endpoints per gli studi prospettici?

Dr. Francesco Cuccia - Oncologo Radioterapista
UOC Radioterapia Oncologica - ARNAS Civico Palermo

Civico Di Cristina Benfratelli

Associazione Italiana Radioterapia e Oncologia clinica

Società Italiana di Radiobiologia



DICHIARAZIONE

Relatore: Francesco Cuccia

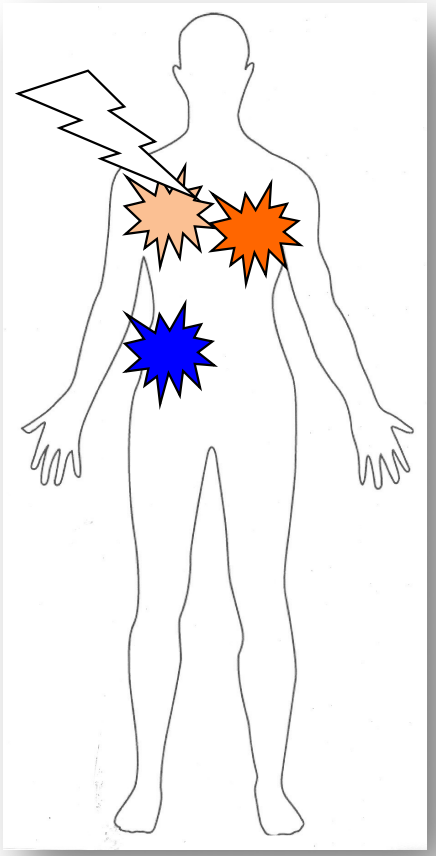
Come da nuova regolamentazione della Commissione Nazionale per la Formazione Continua del Ministero della Salute, è richiesta la trasparenza delle fonti di finanziamento e dei rapporti con soggetti portatori di interessi commerciali in campo sanitario

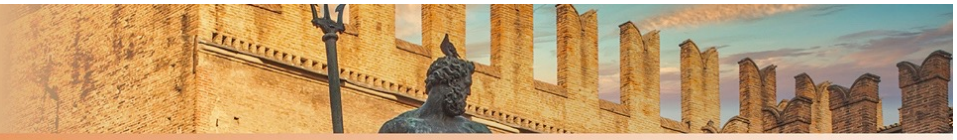
- Posizione di dipendente in aziende con interessi commerciali in campo sanitario **(NIENTE DA DICHIARARE)**
- Consulenza ad aziende con interessi commerciali in campo sanitario **(NIENTE DA DICHIARARE)**
- Fondi per la ricerca da aziende con interessi commerciali in campo sanitario **(NIENTE DA DICHIARARE)**
- Partecipazione ad Advisory Board **(NIENTE DA DICHIARARE)**
- Titolarità di brevetti in compartecipazione ad aziende con interessi commerciali in campo sanitario **(NIENTE DA DICHIARARE)**
- Partecipazioni azionarie in aziende con interessi commerciali in campo sanitario **(NIENTE DA DICHIARARE)**

The term "***oligometastases***" was first described by Hellman and Weichselbaum in 1995 as ***"…a less advanced state of metastatic disease amenable to and potentially curable with local therapy".***
Hellman S, Weichselbaum RR: JCO, 1995

The term "oligometastases" is usually used for five or fewer metastatic lesions .
Milano MT et al., IJROBP, 2012

Often, this clinical situation has a slow rate of progression, justifying focal treatments.





Synchronous oligometastasis
uncontrolled primary T
< 2 months from cancer diagnosis

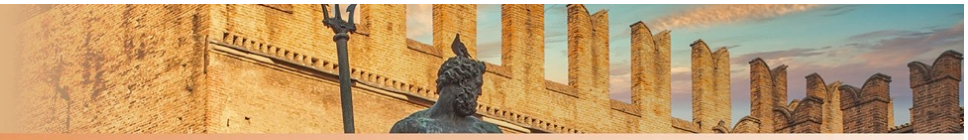
Metachronous oligometastasis
uncontrolled primary T
> 2 months from cancer diagnosis

Not exhaustive terminology in 2022

Oligorecurrence
controlled primary T
No systemic therapy ongoing

Oligoprogression
controlled primary T
Few mts in progression during systemic therapy

Courtesy of Prof. Alongi



FULL LENGTH ARTICLE | VOLUME 82, ISSUE 2, P197-203, NOVEMBER 01, 2013
LUNG CANCER

Is there an oligometastatic state in non-small cell lung cancer? A systematic review of the literature

Allison Ashworth • George Rodrigues • Gabriel Boldt • David Palma

Published: September 19, 2013 • DOI: https://doi.org/10.1016/j.lungcan.2013.07.026 • Check for updates

«NSCLC patients with 1–5 metastases treated with surgical metastatectomy, Stereotactic Ablative Radiotherapy (SABR), or Stereotactic Radiosurgery (SRS)

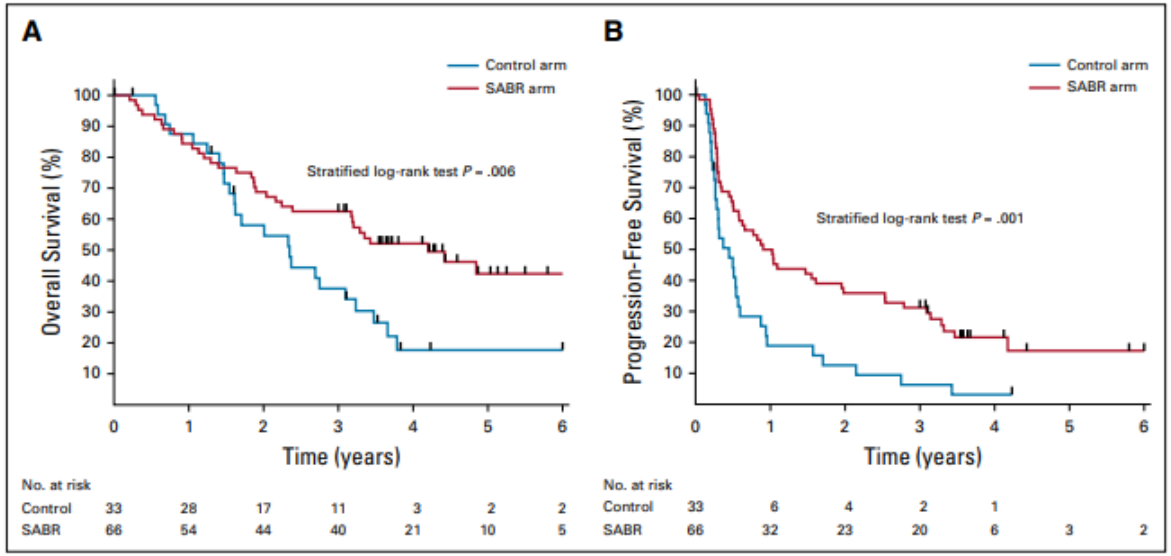
Overall survival (OS) outcomes were heterogeneous: 1 year OS: 15–100%, 2 year OS: 18–90% and 5 year OS: 8.3–86%.»

Civico Di Cristina Benfratelli

Stereotactic Ablative Radiotherapy for the Comprehensive Treatment of Oligometastatic Cancers: Long-Term Results of the SABR-COMET Phase II Randomized Trial

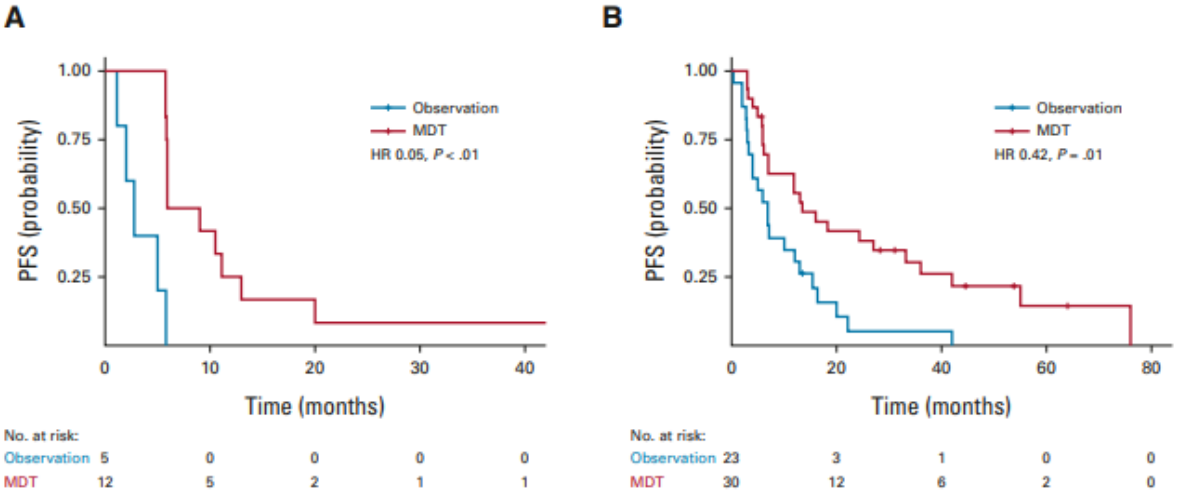
David A. Palma, MD, PhD[1]; Robert Olson, MD, MSc[2]; Stephen Harrow, MBChB, PhD[3]; Stewart Gaede, PhD[1]; Alexander V. Louie, MD, PhD[4]; Cornelis Haasbeek, MD, PhD[5]; Liam Mulroy, MD[6]; Michael Lock, MD[1]; George B. Rodrigues, MD, PhD[1]; Brian P. Yaremko, MD, PEng[1]; Devin Schellenberg, MD[7]; Belal Ahmad, MD[1]; Sashendra Senthi, MD, PhD[8]; Anand Swaminath, MD[9]; Neil Kopek, MD[10]; Mitchell Liu, MD[11]; Karen Moore, MSc[3]; Suzanne Currie, MSc[3]; Roel Schlijper, MD[2]; Glenn S. Bauman, MD[1]; Joanna Laba, MD[1]; X. Melody Qu, MD, MPH[1]; Andrew Warner, MSc[1]; and Suresh Senan, MBBS, PhD[5]

22-month median OS benefit in patients with a controlled primary tumor and 1-5 oligometastases



Long-Term Outcomes and Genetic Predictors of Response to Metastasis-Directed Therapy Versus Observation in Oligometastatic Prostate Cancer: Analysis of STOMP and ORIOLE Trials

Matthew P. Deek, MD[1,2]; Kim Van der Eecken, MD, PhD[3]; Philip Sutera, MD[2]; Rebecca A. Deek, MS[4]; Valérie Fonteyne, MD, PhD[5]; Adrianna A. Mendes, MD[6]; Karel Decaestecker, MD, PhD[7]; Ana Ponce Kiess, MD, PhD[2]; Nicolaas Lumen, MD, PhD[5]; Ryan Phillips, MD, PhD[8]; Aurélie De Bruycker, MD[7]; Mark Mishra, MD[9]; Zaker Rana, MD[9]; Jason Molitoris, MD, PhD[9]; Bieke Lambert, MD[10]; Louke Delrue, MD[11]; Hailun Wang, PhD[2]; Kathryn Lowe, BS[2]; Sofie Verbeke, MD, PhD[12]; Jo Van Dorpe, MD, PhD[12]; Renée Bultijnck, PhD[7]; Geert Villeirs, MD[10]; Kathia De Man, MD[13]; Filip Ameye, MD[14]; Daniel Y. Song, MD[2]; Theodore DeWeese, MD[2]; Channing J. Paller, MD[15]; Felix Y. Feng, MD[16]; Alexander Wyatt, PhD[17]; Kenneth J. Pienta, MD[15,18]; Maximillian Diehn, MD, PhD[19]; Soren M. Bentzen, PhD, DMsc[9,20]; Steven Joniau, MD, PhD[21]; Friedl Vanhaverbeke, MD[22]; Gert De Meerleer, MD[23]; Emmanuel S. Antonarakis, MD[24]; Tamara L. Lotan, MD[6]; Alejandro Berlin, MD[25]; Shankar Siva, MD, PhD[26]; Piet Ost, MD, PhD[27,28]; and Phuoc T. Tran, MD, PhD[2,9,15,18]



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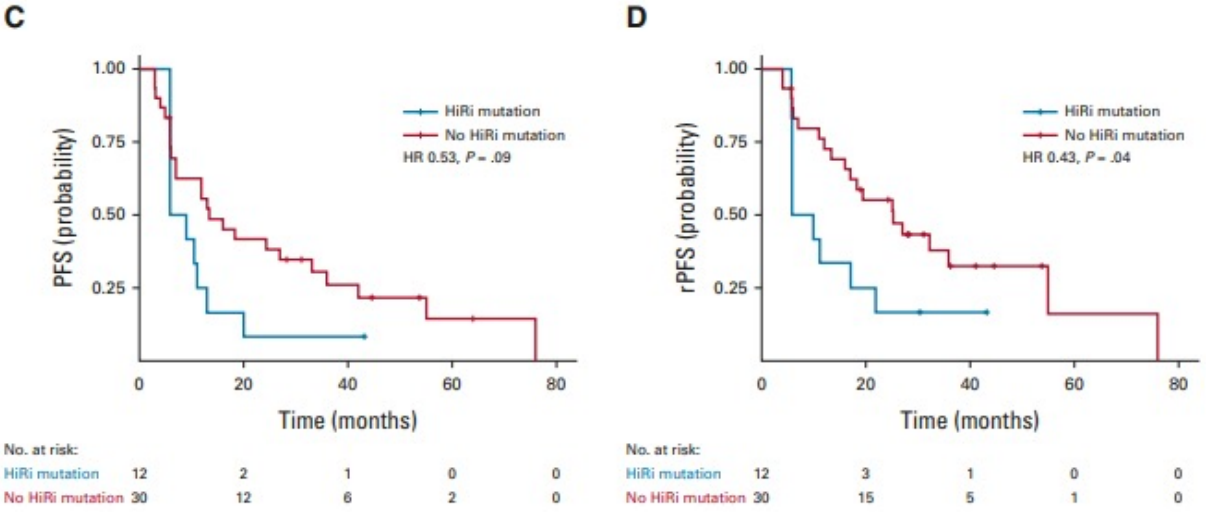
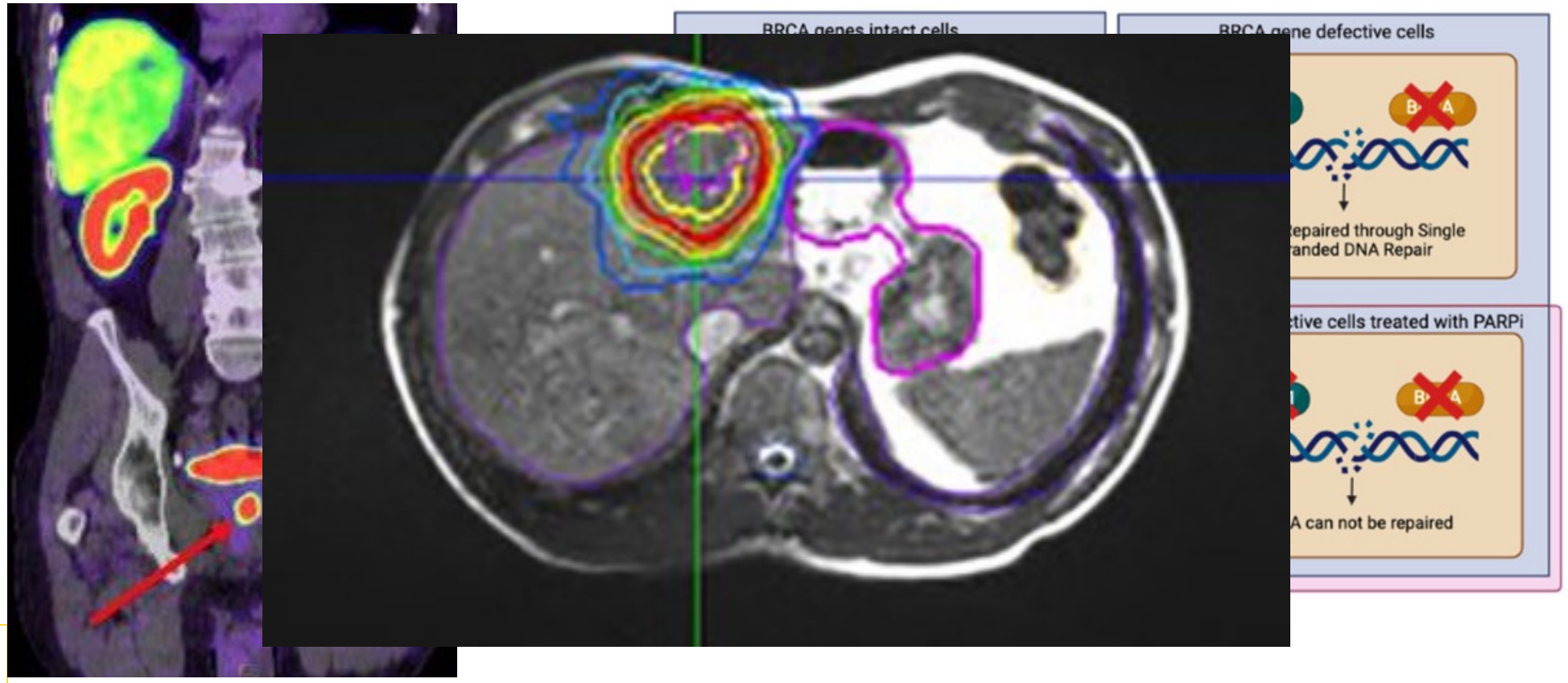
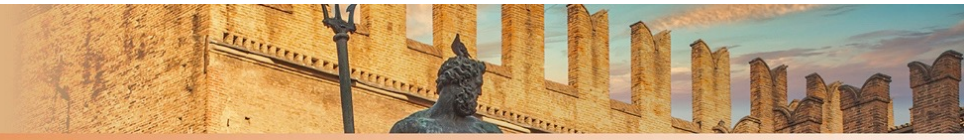



BRCA genes intact cells
BRCA gene defective cells
epaired through Single
anded DNA Repair
tive cells treated with PARPi
A can not be repaired



J Cancer Res Clin Oncol. 2022 Sep 15. doi: 10.1007/s00432-022-04352-z. Online ahead

The impact of stereotactic ablative radiothera oligoprogressive metastases from renal cell carcinoma

Ciro Franzese [1] [2]

Clinical Trial
J Clin Oncol. 2014 Dec 1;32(34):3824-30. doi: 10.1200/JCO.2014.56.7412
Epub 2014 Oct 27.

Phase II trial of stereotactic body radiation th combined with erlotinib for patients with lim progressive metastatic non-small-cell lung

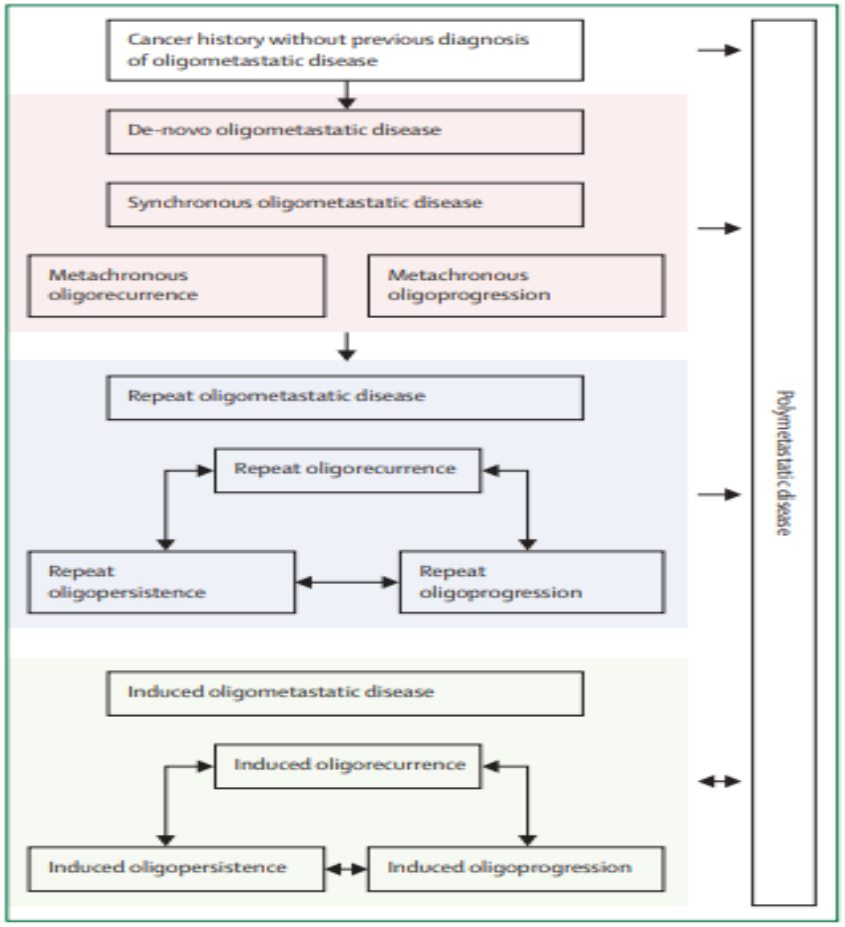
Puneeth Iyengar [1], Brian D Kavanagh [1], Zabi Wardak [1], Irma Smith [1], Chul Ahn
Jonathan Dowell [1], Randall Hughes [1], Ramzi Abdulrahman [1], D Ross Camidge
Robert C Doebele [1], Paul A Bunn [1], Hak Choy [1], Robert Timmerman [2]

Multicenter Study
Epub 2021 Nov 5.
Radiother Oncol. 2022 Jan;166:92-99. doi: 10.1016/j.radonc.2021.10.023.

A multicenter LArge retrospectIve daTabase on the personalization of stereotactic ABlative radiotherapy use in lung metastases from colon-rectal cancer: The LaIT-SABR study

L Nicosia [1], D Franceschini [2], F Perrone-Congedi [3], F Casamassima [4], M A Gerardi [5], M Rigo [6],
R Mazzola [6], M Perna [7], V Scotti [7], A Fodor [8], A Iurato [9], F Pasqualetti [10], G Gadducci [10],
S Chiesa [11], R M Niespolo [12], A Bruni [13], G Alicino [13], L Frassinelli [13], P Borghetti [14], A Di Marzo [15],
A Ravasio [16], B De Bari [17], M Sepulcri [18], D Aiello [19], G Mortellaro [20], C Sangalli [21],
M Franceschini [21], G Montesi [22], F M Aquilanti [23], G Lunardi [24], R Valdagni [25], I Fazio [19],
Giovanni Scarzello [18], L Corti [18], V Vavassori [16], E Maranzano [15], S M Magrini [14], S Arcangeli [12],
Maria Antonietta Gambacorta [26], V Valentini [27], F Paiar [10], S Ramella [9], N G Di Muzio [28], L Livi [7],
B A Jereczek-Fossa [29], M F Osti [3], M Scorsetti [30], F Alongi [31]

Luca Nicosia [1], Vanessa
Niccolò Giaj-Levra [2], Francesco
Stefano Maria Magrini [5], Andrea Girlan



REVIEW | VOLUME 21, ISSUE 1, E18-E28, JANUARY 01, 2020
THE LANCET Oncology

Characterisation and classification of oligometastatic disease: a European Society for Radiotherapy and Oncology and European Organisation for Research and Treatment of Cancer consensus recommendation

Prof Matthias Guckenberger, MD • Prof Yolande Lievens, PhD • Angelique B Bouma, MD • Laurence Collette, PhD • Andre Dekker, PhD • Prof Nandita M deSouza, FRCR • et al. Show all authors

Genuine OMD

- *De novo OMD*
- *Repeat OMD*

Induced OMD

INTERNATIONAL JOURNAL OF
RADIATION ONCOLOGY · BIOLOGY · PHYSICS
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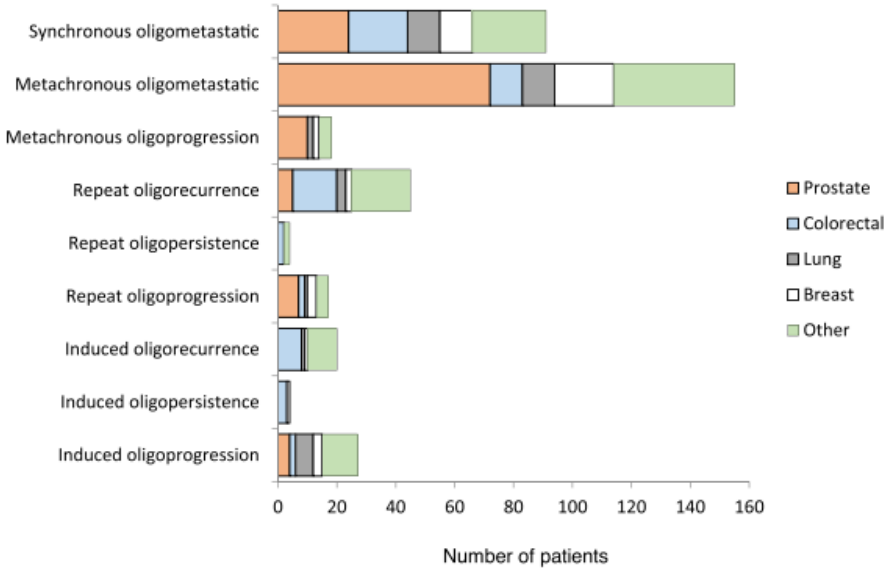
Validation of the Prognostic Utility of ESTRO/EORTC Oligometastatic Disease Classification: A Secondary Analysis From the Population-Based Phase II SABR-5 Trial

S. Baker, MD, PhD,*,† B. Mou, MD,*,‡ W. Jiang, MD,*,‡ M. Liu, MD, CM,*,§ A.M. Bergman, PhD,§
D. Schellenberg, MD,*,† A.S. Alexander, MD,*,‖ H. Carolan, MD,*,§ S. Atrchian, MD,*,† T. Berrang, MD,*,‖
A. Bang, MD,*,‖ N. Chng, PhD,# Q. Matthews, PhD,# S. Tyldesley, MD,*,§ and R.A. Olson, MD, MSc*,#

In this large prospective cohort (386 patients), the ESTRO/EORTC classification was an independent predictor of PFS and OS and should be used to identify specific patient groups for clinical trials. In this trial population, the prognostic power is largely attributable to chronicity and oligoprogression



Number of patients with each primary cancer histology within each oligometastatic category.

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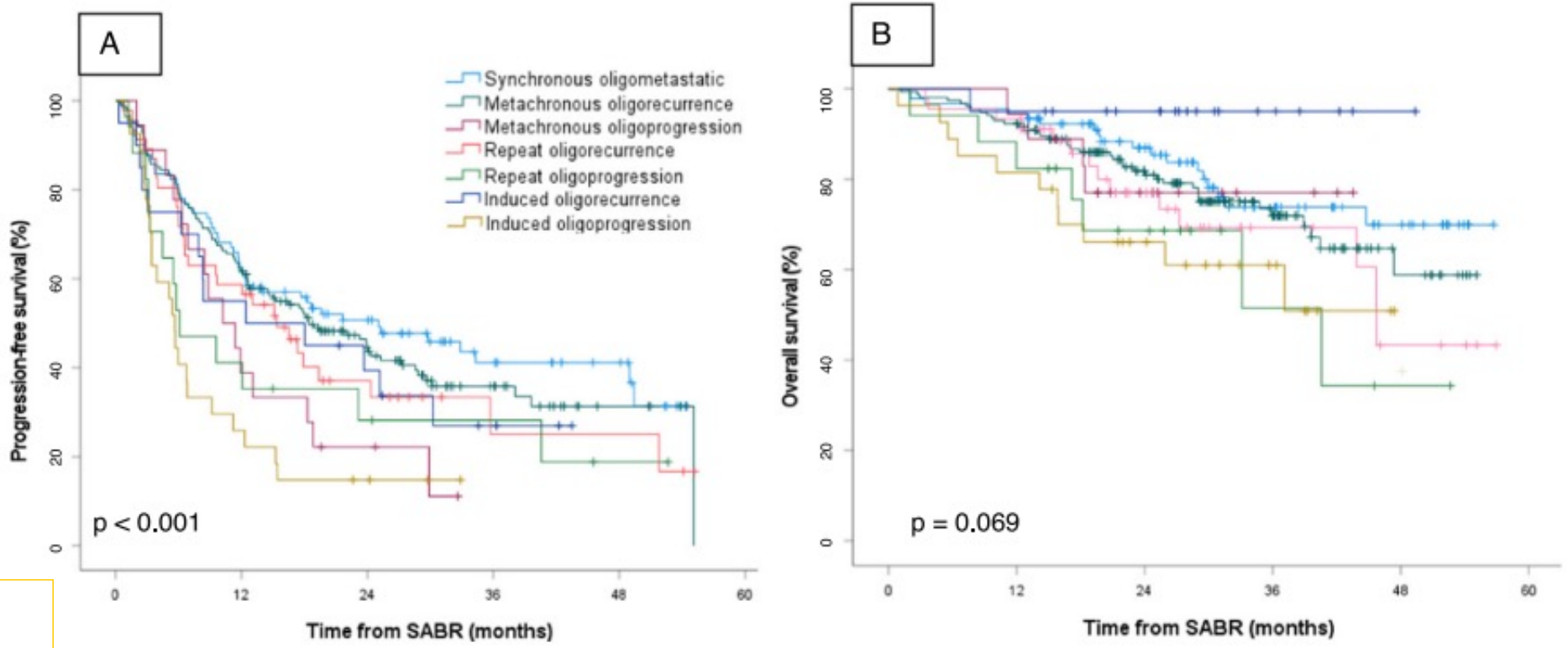
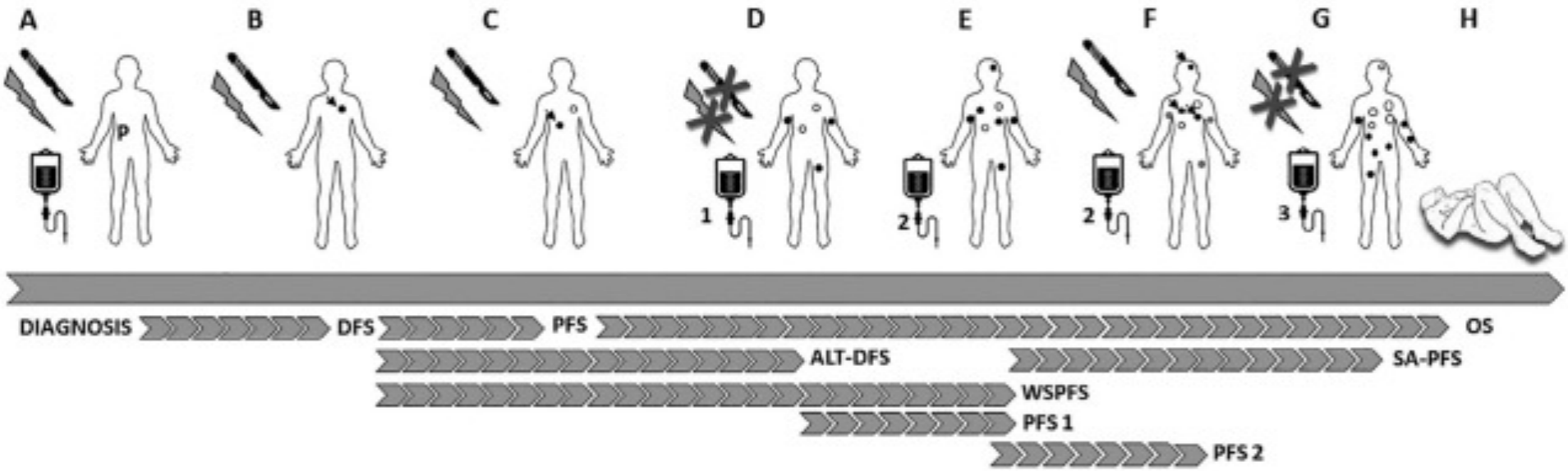
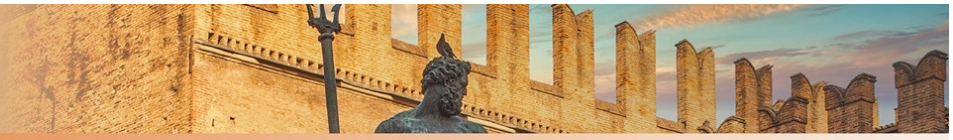



EUROPEAN QUALIFIERS
UEFA.com
local control
new end-points



Loi et al., The Oncologist 2021;26:e1085–e1086

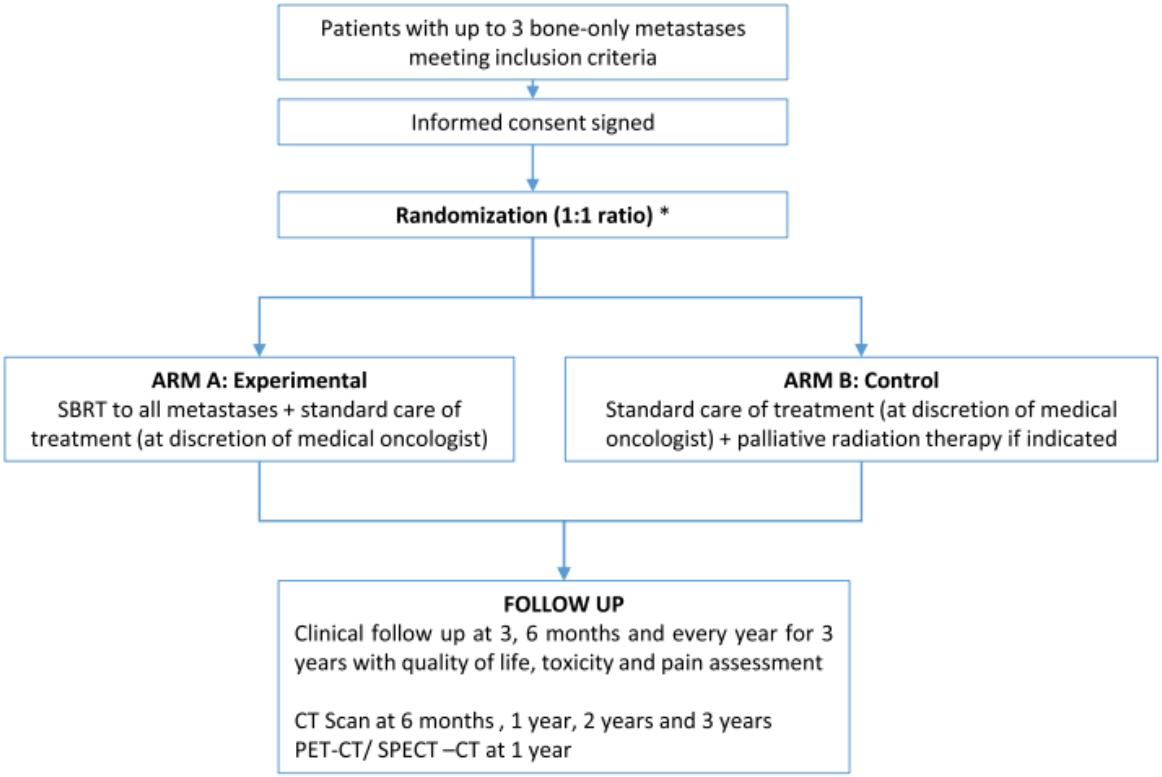


Ablative Local Treatment (ALT)-adjusted PFS — time from first ALT to systemic treatment or best supportive care

Widespread PFS — time from oligometastatic presentation to metastatic dissemination

Systemic Therapy plus ALT-adjusted PFS — time from ALT to next systemic therapy

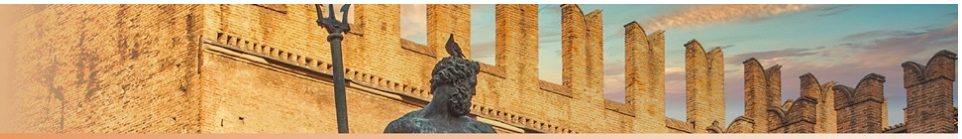
Loi et al., The Oncologist 2021;26:e1085–e1086



Efficacy of extracranial stereotactic body radiation therapy (SBRT) added to standard treatment in patients with solid tumors (breast, prostate and non-small cell lung cancer) with up to 3 bone-only metastases: study protocol for a randomised phase III trial (STEREO-OS)

Sébastien Thureau[1,2*], Vincent Marchesi[3], Marie-Hélène Vieillard[4], Lionel Perrier[5], Albert Lisbona[6], Marianne Leheurteur[7], Jean Tredaniel[8], Stéphane Culine[9,10], Bernard Dubray[1,2], Naïma Bonnet[11], Bernard Asselain[11], Julia Salleron[12] and Jean-Christophe Faivre[3]

Thureau et al., BMC Cancer 2021



Primary endpoint

- 1-year PFS

Secondary endpoints

- 2- and 3-years PFS
- Bone progression-free survival
- Local Control
- Cancer-specific survival
- Overall Survival
- Acute and Late Toxicity
- QoL
- Pain Response

Efficacy of extracranial stereotactic body radiation therapy (SBRT) added to standard treatment in patients with solid tumors (breast, prostate and non-small cell lung cancer) with up to 3 bone-only metastases: study protocol for a randomised phase III trial (STEREO-OS)

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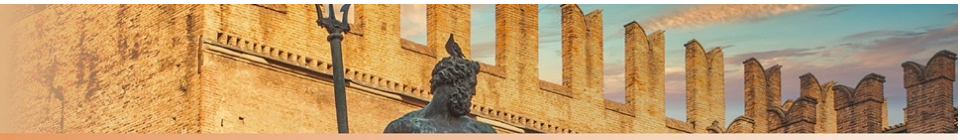
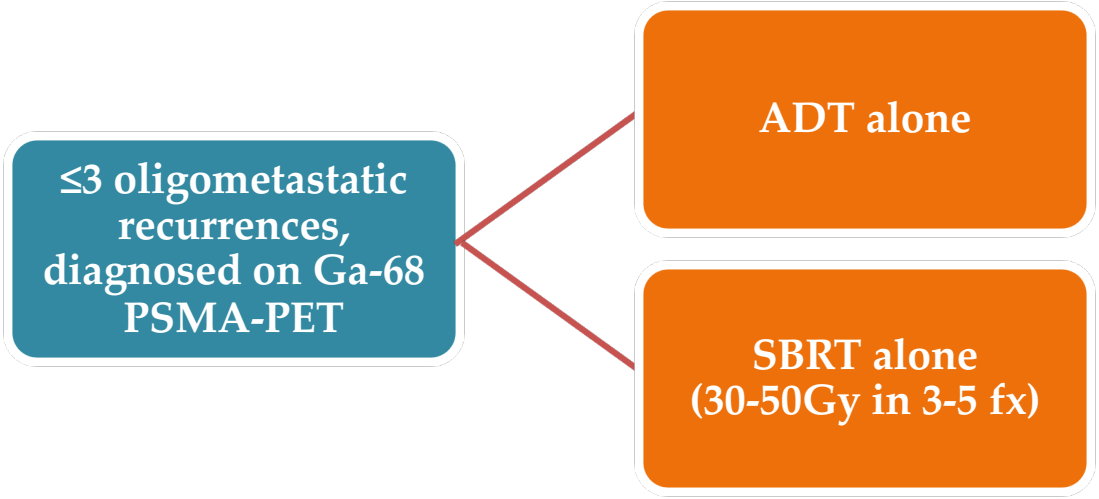
Thureau et al., BMC Cancer 2021

Civico Di Cristina Benfratelli

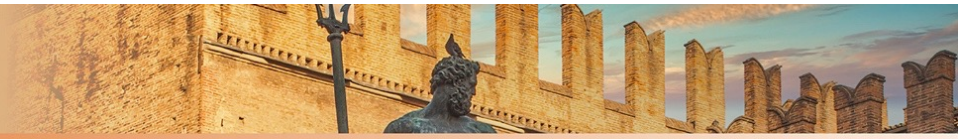


BMJ Open **Stereotactic body radiotherapy (SBRT) versus androgen deprivation therapy (ADT) for oligometastatic prostate cancer: protocol for a prospective randomised control clinical trial**

Xianzhi Zhao [1], Tao Wang [2], Yusheng Ye [1], Jing Li,[3] Xu Gao,[4] Huojun Zhang [1]



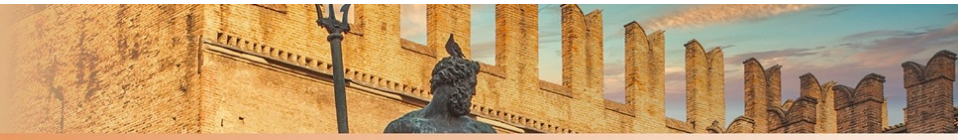
One of the primary endpoints is ADT-free survival of arm B, the other is the time to CRPC disease.



Trials with eligibility specific to breast cancer.

Trial name	Design	Recruitment target	Primary outcome	Sponsor
Stereotactic Body Radiotherapy (SBRT) for the Treatment of Oligometastasis in Breast Cancer Patients (STOMP): A Prospective Feasibility Trial [47]	Phase I feasibility study	n = 30	Technical feasibility of planning SBRT to multiple sites	Juravinski Cancer Center
Trial of Superiority of Stereotactic Body Radiation Therapy in Patients with Breast Cancer (STEREO-SEIN) [48]	Randomised Multicentric Phase III trial	n = 280	PFS	Gustave Roussy, Cancer Campus, Grand Paris
Study on SBRT for Inoperable Lung and Liver Oligometastases From Breast Cancer [49]	Prospective non-randomised phase II study	n = 58	Toxicity and Local Control	Istituto Clinico Humanitas
Standard of Care Therapy With or Without Stereotactic Radiosurgery and/or Surgery in Treating Patients With Limited Metastatic Breast Cancer [50]	Randomised phase IIR/III Trial	n = 402	PFS and OS	NRG Oncology
Local Treatment in ER-positive/HER2-negative Oligo-metastatic Breast Cancer (CLEAR) [51]	Multi-centre, single-arm, phase II trial	n = 110	PFS	Gangnam Severance Hospital
Stereotactic Radiotherapy for Oligoprogressive ER-positive Breast. Cancer (AVATAR) [52]	Multicentre phase II registry-based study	n = 32	Time to change in systemic therapy	Peter MacCallum Cancer Centre
Metastases-directed Radiotherapy in Addition to Standard Systemic Therapy in Patient with Oligometastatic Breast Cancer (OLIGOMA) [53]	Randomised controlled multi-national, multicentre therapeutic confirmatory trial	n = 564	PFS and quality of life	University Hospital Schleswig-Holstein

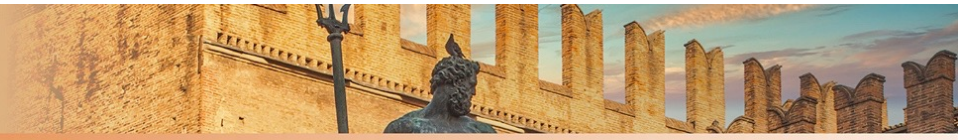
Stewart et al., The Breast 2021



Trials with eligibility not specific to breast cancer.

Trial name	Design	Recruitment target	Primary outcome	Sponsor
Stereotactic Body Radiation for Spinal Metastases in Favorite Tumors [54]	Phase II study	n = 100	The rate of relieved pain	RenJi Hospital
Randomized Study of Stereotactic Body Radiation Therapy (SBRT) in Patients With Oligoprogressive Metastatic Cancers of the Breast and Lung [55]	Randomised, phase II trial	n = 160	PFS	Memorial Sloan Kettering Cancer Center
Standard Treatment ± SBRT in Solid Tumours Patients With Between 1 and 3 Bone-only Metastases (STEREO-OS) [56]	Randomised, Phase III trial	n = 196	PFS	UNICANCER
Conventional Care Versus Radioablation (Stereotactic Body Radiotherapy) for Extracranial Oligometastases (CORE) [57]	Multi-centre phase II/III randomised controlled trial	n = 245	PFS	Royal Marsden NHS Foundation Trust
Stereotactic Body Radiation Therapy in Treating Patients With Metastatic Breast Cancer, Non-small Cell Lung Cancer, or Prostate Cancer [58]	Phase I study	n = 42	Dose limiting toxicity	NRG Oncology
Investigating the Effectiveness of Stereotactic Body Radiotherapy (SBRT) in Addition to Standard of Care Treatment for Cancer That Has Spread Beyond the Original Site of Disease [59]	Randomised Phase II study	n = 142	PFS	Memorial Sloan Kettering Cancer Center
A Randomized Phase III Trial of Stereotactic Ablative Radiotherapy for the Comprehensive Treatment of 4–10 Oligometastatic Tumours (SABR-COMET 10) [60]	Randomised Phase III study	n = 159	OS	David Palma

Stewart et al., The Breast 2021



CLINICAL INVESTIGATION | VOLUME 114, ISSUE 4, P676-683, NOVEMBER 15, 2022

Local Therapy for Oligoprogressive Disease: A Systematic Review of Prospective Trials

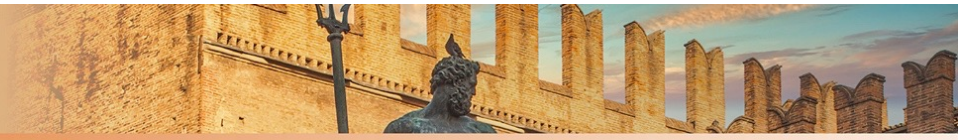
Hans Kim, MD • Bhanu P. Venkatesulu, MD • Matthew T. McMillan, MD • ... Steven H. Lin, MD, PhD • Joe Y. Chang, MD • James W. Welsh, MD • Show all authors

Published: August 13, 2022 • DOI: https://doi.org/10.1016/j.ijrobp.2022.08.027 • Check for updates

Table 1 Baseline characteristics of the analyzed trials.

Trial	Design	Sample size	Age (median), y	Sex (M/F)	Histology	Progressive sites	Median follow-up (mo)	Primary endpoint
Iyengar et al[16]	Single arm phase 2	24	67	13/11	NSCLC	≤6 (all enrollees had ≤5), with ≤3 in liver and lung each	11.6	6 mo PFS
Weiss et al[17]	Single arm phase 2	25	64	9/16	EGFRm NSCLC	≤5	Not listed	PFS
Kim et al[18]	Single arm phase 2	24	NS	NS	EGFRm NSCLC	≤5	Not listed	PFS and PFS2
Tsai et al[19]	Randomized phase 2	102	NS	NS	NSCLC, breast	≤5	11.7	PFS
Pezzulla et al[20]	Phase 1 post hoc	38	74	38/0	Prostate	≤5, no visceral metastases	27	N/A
Berghen et al[21]	Single arm phase 2	20	74	20/0	Prostate	≤3 (including local progression)	6	NFS
Cheung et al[22]	Single arm phase 2	37	62	26/11	Renal cell	≤5 (all enrollees had ≤3), with ≤3 soft tissue sites	11.8	Local control
Hannan et al[23]	Single arm phase 2	20	NS	NS	Renal cell	≤3	8.3	NFS

Abbreviations: EGFRm = mutation in the epidermal growth factor receptor; N/A = not available; NFS = next-line systemic therapy-free survival; NS = not specified; NSCLC = non-small cell lung cancer; PFS = progression-free survival; PFS2 = PFS at the second progression.



Clinicaltrials.gov identifier	Institution	Study design	Sample size	Systemic therapy	Progressive sites	Primary endpoint(s)
Non-small cell lung cancer						
NCT04970693	Sun-Yat-Sen University	Nonrandomized phase 2	64	Furmonertinib	3-5	PFS
NCT04485026	Wake Forest University	Randomized phase 2	70	Not specified	≤4	OS
NCT02759835	National Cancer Institute	Nonrandomized phase 2	37	TKI	≤3	PFS
NCT04767009	Fudan University	Nonrandomized phase 2	59	PD-1 inhibitors	Not specified	Toxicity and 1-y new lesion free survival rate
NCT04549428	Oncology Institute of Southern Switzerland	Nonrandomized phase 2	20	Atezolizumab	≤4 (≤3 total organs and ≤3 lesions per organ, except bone)	Objective response rate
NCT04892953 (ENDURE)	MD Anderson Cancer Center	Nonrandomized phase 2	51	Durvalumab	≤3	PFS
NCT04405401 (SUPPRESS-NSCLC)	Center Hospitalier de l'Université de Montréal	Randomized phase 2	68	ICI or TKI	≤5 (≤5 cm, ≤3 organs)	PFS and OS
NCT03256981	Institute of Cancer Research, United Kingdom	Randomized phase 2	110	TKI	≤3	PFS
Prostate cancer						
NCT04624828 (IOSCAR)	Humanitas Research Hospital	Nonrandomized phase 2	40	ADT	≤3, bone or nodes	Immunomodulatory effects
NCT04838899	Sunnybrook Health Sciences Center	Nonrandomized phase 2	30	Abiraterone	≤5 (≤3 in 1 organ system)	Toxicity and PFS
NCT04070209 (PCS X)	Jewish General Hospital	Nonrandomized phase 2	66	Darolutamide	≤5 (≤4 in one organ system, excluding brain)	PFS
NCT04141709	Technische Universität Dresden	Randomized phase 2	66	Not specified	≤5	Time to PSA progression
Renal cell cancer						
NCT04974671	Yale University	Nonrandomized phase 2	30	ICI	≤5	PFS
NCT04299646 (GETUG-StORM-01)	National Cancer Institute, France	Randomized phase 2	114	Targeted agents or ICI	≤3 (≤4 cm, ≤2 organs)	PFS
Head and neck cancers						
NCT04989725 (Suppress-HNC)	Center Hospitalier de l'Université de Montréal	Randomized phase 2	46	Not specified	≤5 (excluding brain)	PFS

A critical review on oligometastatic disease: a radiation oncologist's perspective

Pietro Pacifico[1,2] · Riccardo Ray Colciago[1,3] · Francesca De Felice[4] · Luca Boldrini[5] · Viola Salvestrini[6] · Valerio Nardone[7] · Isacco Desideri[8] · Carlo Greco[9] · Stefano Arcangeli[1,2]

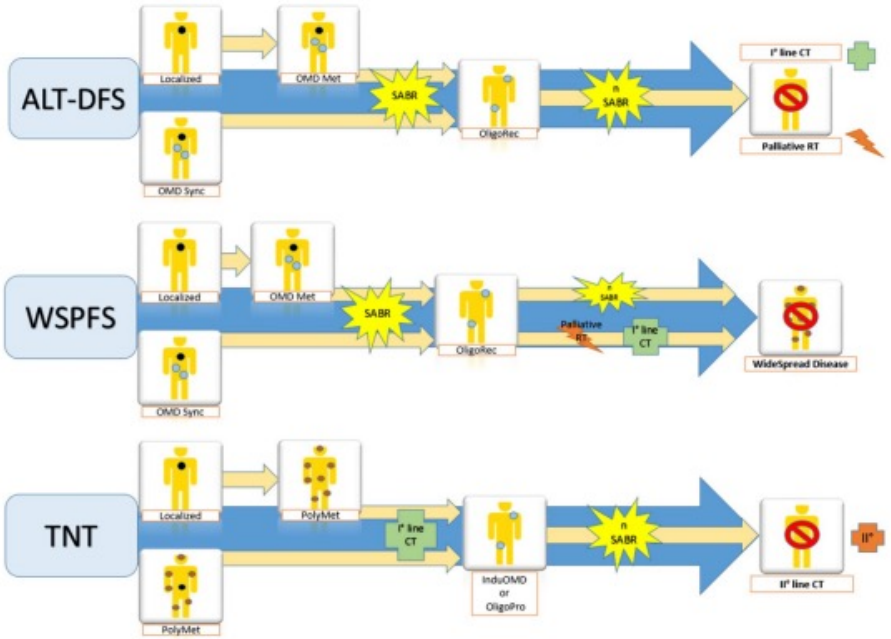


Fig. 1 Novel endpoints for OMD. *ALT* Ablative Local Treatment-adjusted Disease-Free Survival, *WSPFS* widespread Progression-Free Survival, *TNT or NEST* Time to New Systemic treatment

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Oligorecurrent disease

- **PFS**
- **ADT-free survival**
- **OS**

Oligoprogressive disease

- **NEST**
- **PFS**

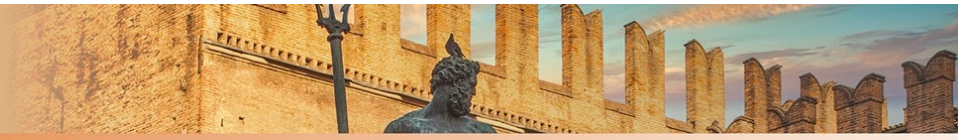

Table 2 Resume of cut-off values of prognostic factor for OMD in retrospective studies

Prognostic factors	Cut-off values	References	Outcomes
Size	Pulmonary metastasis: 30 mm	Fode et al. [13]	OS, LPFS
	OM-CRC: 20-30 mm	Franzese et al. [17]	
		Sharma et al. [25]	
		Nicosia et al. [26]	
Number	1–5	Fode et al. [13]	OS, tPMC
	OM-CRC: 3	Franceschini et al. [14]	
		Klement et al. [15]	
		Ricardi et al. [16]	
		Franzese et al. [17]	
		Nicosia et al. [26]	
Site	Lung metastasis	Franceschini et al. [14]	OS
	OM-PC: Bone only	Franzese et al. [17]	
		Chen et al. [44]	
DFI	Pulmonary metastasis: 30 months	Franzese et al. [17]	OS, PFS
	OM-PC: 24–34 months	Alongi et al. [35]	
	OM-CRC: 30 months	Chen et al. [36]	
	EP-OM other histologies[a]: 24 months	Chen et al. [44]	
Markers	OM-CRC: CEA < 100 ng/ml	Thompson et al. [32]	OS, PFS
	NSCLC: CTC clearance to ≤ 15/ml	Lebow et al. [34]	
Prior systemic therapy	OM-CRC: < 2 line	Franzese et al. [17]	OS
		Thompson et al. [32]	
		Klement et al. [40]	
Primary site	Breast, prostate	Milano et al. [42]	OS
		Chen et al. [44]	
PS	0–1	Fode et al. [13]	OS
		Yamamoto et al. [23]	

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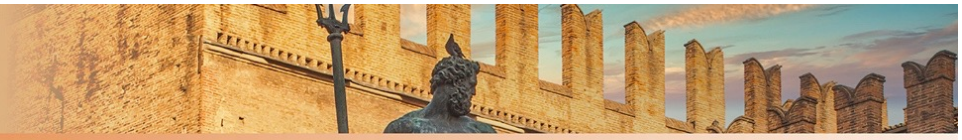

Table 3 OMD on-going phase III randomized controlled trials

Study	Phase	Type of cancer	Intervention	Estimated completion date	Primary endpoint
NCT05278052	III	NSCLC	Standard maintenance therapy + SBRT VS Standard maintenance therapy alone	2028	2 year—OS
NCT05377047	III	Breast cancer	SBRT to all sites VS Standard first line systemic therapy	2027	3 year—OS
NCT04983095	III	Prostate cancer	SBRT to all sites + standard treatment VS Standard treatment	2029	Failure-free survival
NCT04498767	III	Solid tumors	SBRT to all sites VS Palliative RT	2030	OS
NCT04495309	III	Breast cancer	SBRT to all sites + Standard treatment VS Standard treatment	2025	PFS and QoL
NCT02417662	III	NSCLC	SBRT to all sites + Standard treatment VS Standard treatment alone	2022	3 year—OS
NCT04599686	III	Prostate cancer	SBRT to all sites VS ADT	2025	1 year—ADT-free survival
NCT04115007	III	Prostate Cancer	SBRT to all sites + Standard treatment VS Standard treatment	2027	Castration-resistant prostate cancer free survival

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NCT04646564	III	Breast cancer	SBRT to all sites + Standard treatment VS Standard treatment	2026	2 year—PFS
NCT03862911	III	Solid tumors	SBRT to all sites + Standard treatment VS Standard treatment	2028	5 year—OS
NCT03784755	III	Prostate cancer	SBRT to all metastatic lesions and primary tumor + Standard treatment VS SBRT to primary tumor + Standard treatment	2025	Failure-free survival
NCT03721341	III	Solid tumors	SBRT to all sites + Standard treatment VS Standard treatment	2029	OS
NCT05209243	III	Prostate cancer	SBRT to all metastatic sites + ADT + Standard treatment + RT to primary tumor VS ADT + RT to primary tumor + Second generation hormonal treatment	2026	2 year—PFS
NCT03827577	III	NSCLC	SBRT to all sites + Lung resection + Standard treatment VS Standard treatment	2022	5 year—OS
NCT05352178	III	Prostate cancer	SBRT to all sites VS SBRT to all sites + ADT	2032	5 year—Poly metastatic free survival

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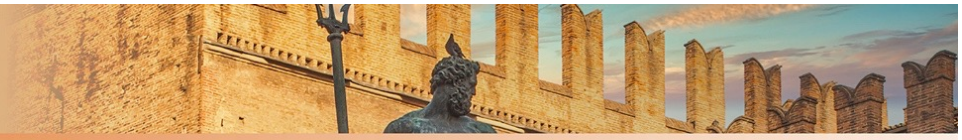

EDITORIAL

Oligometastases: Learning From the Past, Building for the Future

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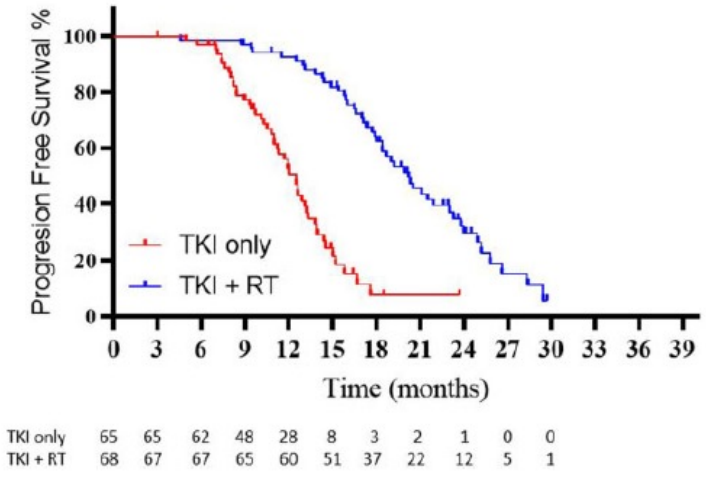
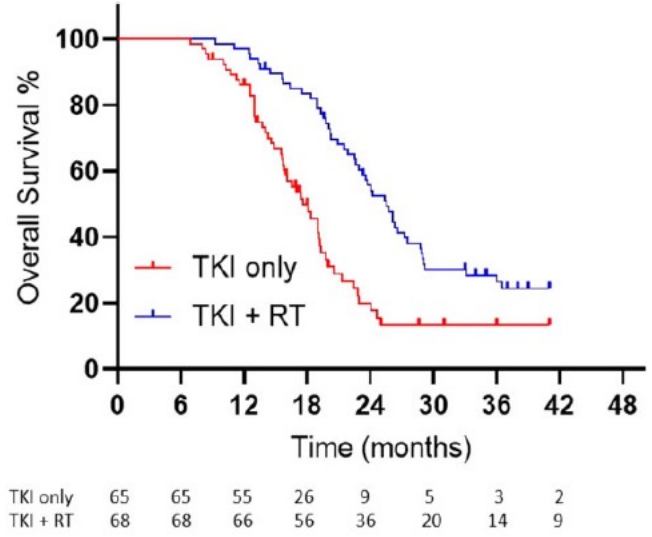
Although PFS has been criticized as an outcome in SABR trials (likened to reporting rates of appendicitis after appendectomy), the use of PFS in this setting is analogous to the use of disease-free survival or relapse-free survival after surgery, which are well-accepted endpoints. After SABR, PFS captures progression of known disease, development of new metastases, and death as events. Preventing PFS events could avoid or delay further systemic therapy, protecting quality of life as long as possible, and can translate into improvements in OS

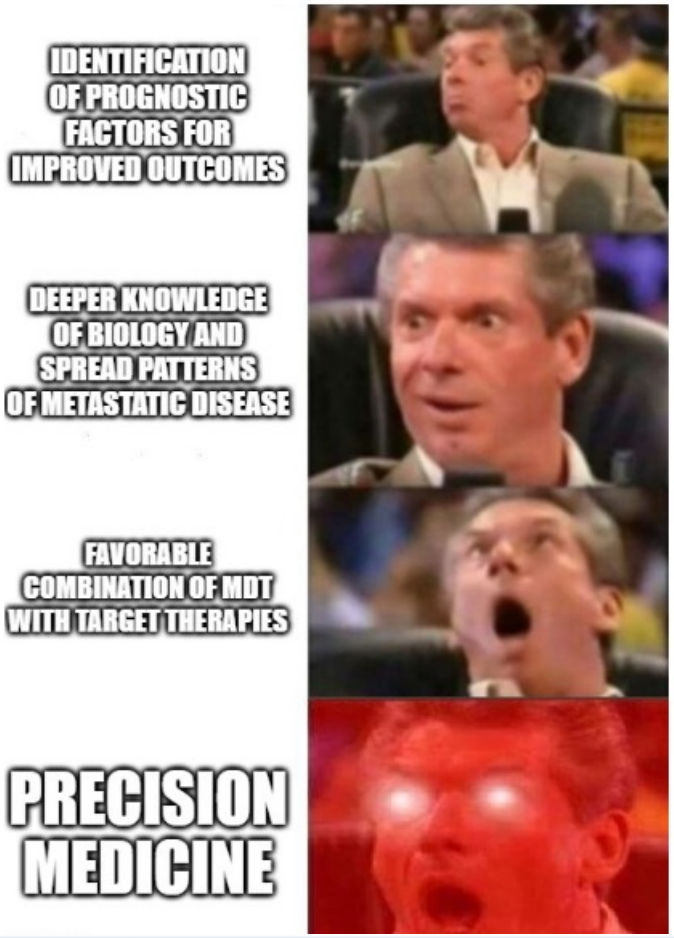
Randomized Trial of First-Line Tyrosine Kinase Inhibitor With or Without Radiotherapy for Synchronous Oligometastatic *EGFR*-Mutated Non-Small Cell Lung Cancer

JNCI J Natl Cancer Inst (2022) 114(5): djac015

The first positive phase 3 trial, the SINDAS (Stereotactic Body Radiation Therapy in Newly Diagnosed Advanced Staged Lung Adenocarcinoma) trial, showed OS and PFS benefits when adding SABR to a tyrosine kinase inhibitor for epidermal growth factor receptor– mutated oligometastatic non-small cell lung cancer







- Upcoming prospective studies on more homogeneous cohorts based on standardized nomenclature classifications
- Survival endpoints will provide further evidence in support of the role of SABR

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