

Value *across the cancer care continuum*

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On behalf of

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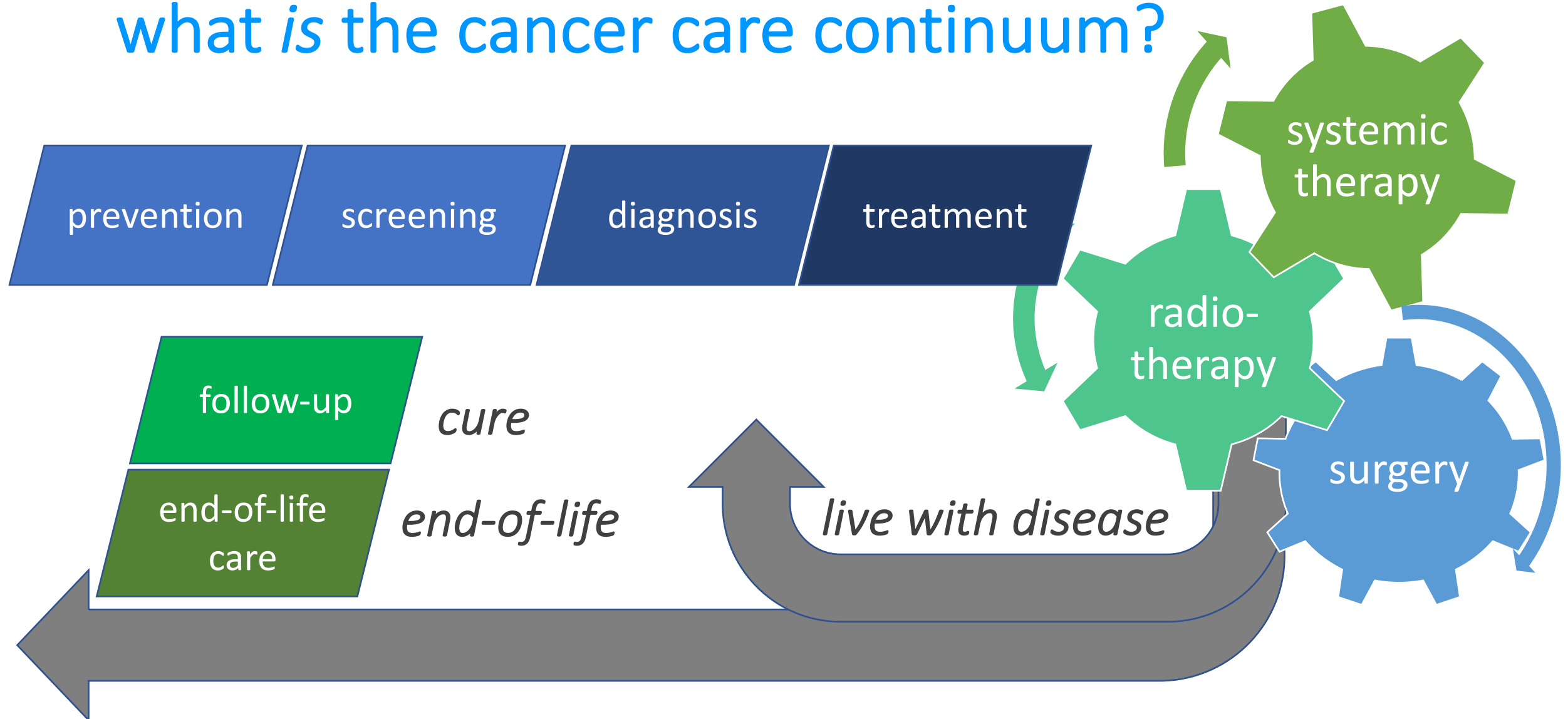
ECCO represents the cancer care continuum..



24 member societies representing 150,000 HCPs

advised by 17 patient associations
through its Patient Advisory Committee

what is the cancer care continuum?



VALUE is delivered by HC professionals and service providers in every part of care

...and is united in concern about cancer patients' access to innovation

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Position Paper

Identifying critical steps towards improved access to innovation in cancer care: a European CanCer Organisation position paper

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1. Greater involvement of **patients** and **caregivers** in defining and assessing the value of innovation
2. A **whole-system, whole-patient** approach to guide investment in innovation
3. More efficient and harmonised **evaluation** of innovation
4. Investment in **real-world data** to guide investment in innovation
5. Promotion of an **innovation culture** within the delivery of cancer care
6. A **pan-European vision** on innovation (a vision and a will)

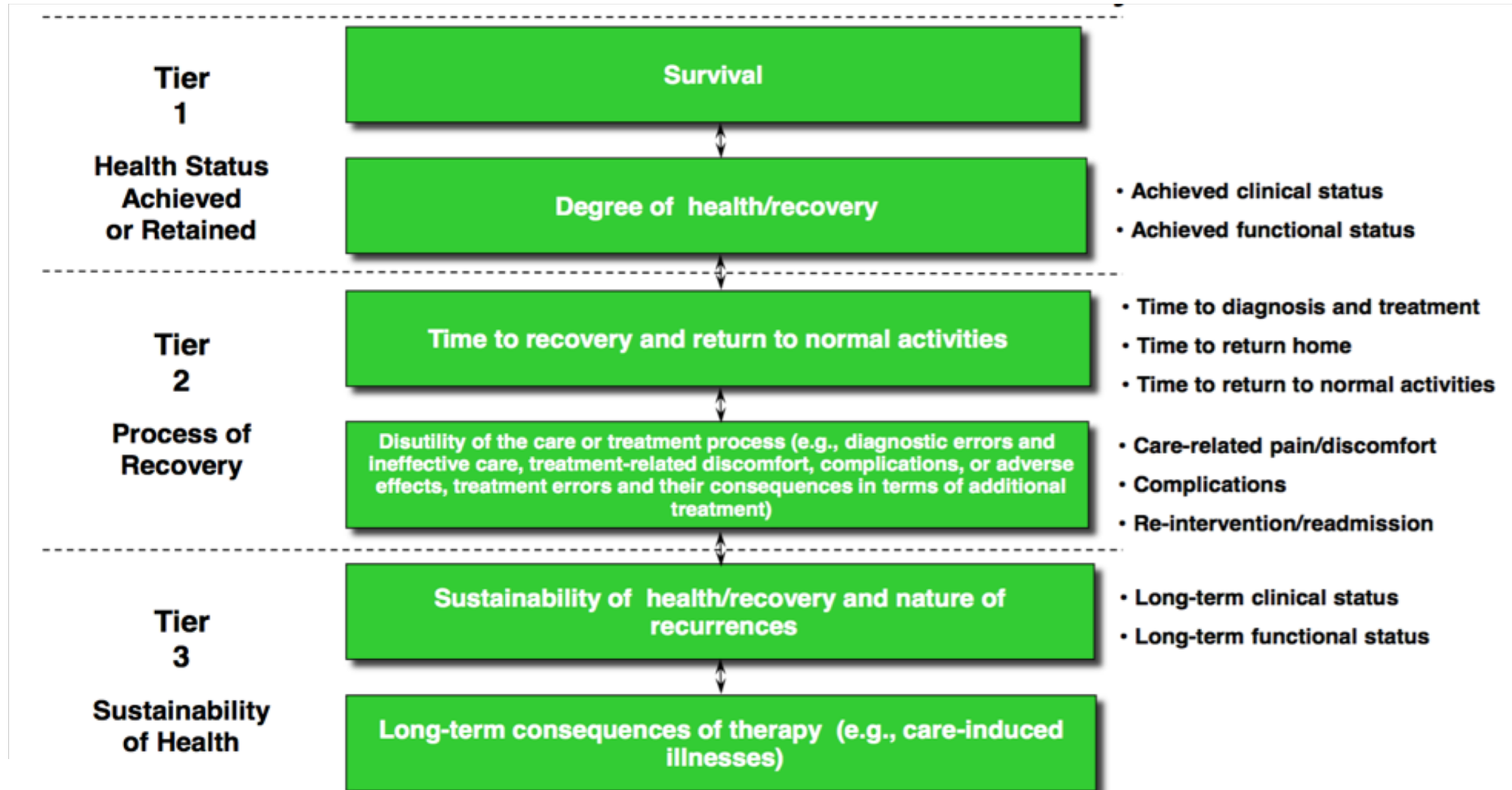
what *is* value based healthcare?

$$\text{Value} = \frac{\text{Health outcomes that matter to patients}}{\text{Costs of delivering these outcomes}}$$

what do *patients* value?



the outcome measures hierarchy



VBHC *by* ECCO's member community



the value
of imaging



HERO
Health Economics in
Radiation Oncology



ReCAN
Recognising European
Cancer Nursing



Cost-Effectiveness
of Psycho-Oncology

For more information:


<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5621991/>

<https://www.estro.org/about/health-economics-in-radiation-oncology---hero/hero>

<http://www.cancernurse.eu/research/recan.html>


<https://www.eccosummit.eu/Programme>

ECCO's Value-Based Healthcare Project



It is critical to balance investment in innovation with the need to ensure the sustainability of healthcare budgets.

For more information visit www.ecco-org.eu/policy



As the ECCO position paper on [access to innovation](#) makes clear, the necessary starting point to the measurement of value of any innovation is to determine whether it offers real benefits to patients. This requires a comprehensive assessment of its impact on patient outcomes, quality of life, quality of care and costs across the system.



3 primary questions:

1. What **methodologies** for assessing value do currently exist?
2. Is the definition of value in these methodologies **applicable** to the non-pharmaceutical domain and if not, how should value be defined for non-pharmaceutical interventions?
3. What **recommendations/reflections** could be made to health policy decision-makers about their adjusted application to the non-pharmaceutical domain?

Step 1

Preliminary magnitude of clinical benefit grade
(highest grade scored)

4	3	2	1
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Step 2

Assessment QoL & grade 3-4 toxicities

Does secondary endpoint QoL show improvement
Are there statistically significantly < grade 3-4 toxicities impacting daily well-being*

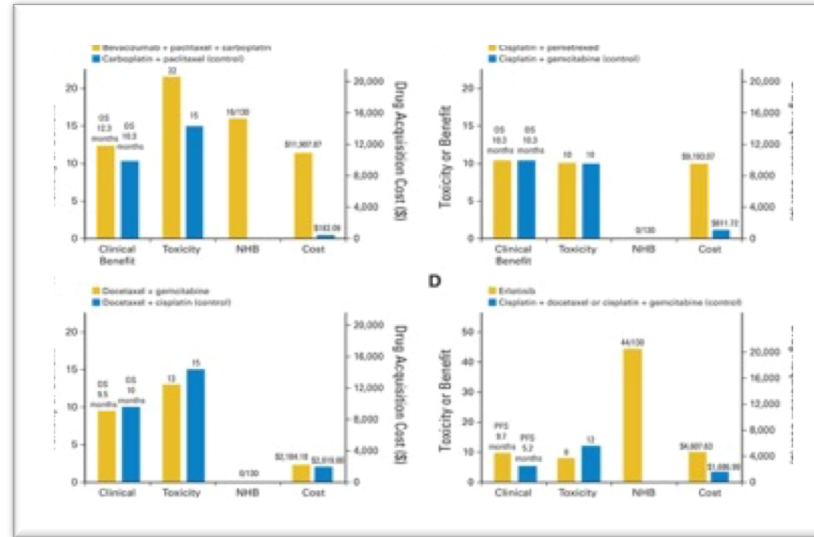
*not including alopecia, myelosuppression, but rather chronic nausea, diarrhea, fatigue, etc.

Adjustment: Upgrade 1 level if improved QoL or less toxicity or is shown

Step 3

Final adjusted magnitude of clinical benefit grade

5	4	3	2	1
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5					E = 4
4					S = 4
3					Q = 3
2					C = 4
1					A = 3
					E S Q C A

Quality of Evidence

- 5 High quality: Multiple well-designed randomized trials and/or meta-analyses
- 4 Good quality: Several well-designed randomized trials
- 3 Average quality: Low quality randomized trials or well-designed non-randomized trials
- 2 Low quality: Case reports or clinical experience only
- 1 Poor quality: Little or no evidence

Consistency of Evidence

- 5 Highly consistent: Multiple trials with similar outcomes
- 4 Mainly consistent: Multiple trials with some variability in outcome
- 3 May be consistent: Few trials or only trials with few patients; lower quality trials whether randomized or not
- 2 Inconsistent: Meaningful differences in direction of outcome between quality trials
- 1 Anecdotal evidence only: Evidence in humans based upon anecdotal experience

Affordability of Regimen/Agent (includes drug cost, supportive care, infusions, toxicity monitoring, management of toxicity)

- 5 Very inexpensive
- 4 Inexpensive
- 3 Moderately expensive
- 2 Expensive
- 1 More expensive

Efficacy of Regimen/Agent

- Highly effective: Often provides long-term survival advantage or has curative potential
- Very effective: Sometimes provides long-term survival advantage or has curative potential
- Moderately effective: Modest, no, or unknown impact on survival but often provides control of disease
- Minimally effective: Modest, no, or unknown impact on survival and sometimes provides control of disease
- Palliative: Provides symptomatic benefit only

Safety of Regimen/Agent

- Usually no meaningful toxicity: Uncommon or minimal side effects. No interference with activities of daily living (ADLs)
- Occasionally toxic: Rare significant toxicities or low-grade toxicities only. Little interference with ADLs
- Mildly toxic: Mild toxicity that interferes with ADLs is common
- Moderately toxic: Significant toxicities often occur; life-threatening/fatal toxicity is uncommon. Interference with ADLs is usual
- Highly toxic: Usually severe, significant toxicities or life-threatening/fatal toxicity often observed. Interference with ADLs is usual and/or severe

most frequently used value scales in oncology
detailed appraisal of their methodologies
developed by professional and scientific bodies



general aspects

		ESMO	ASCO	NCCN
<i>Cancer Types</i>	solid tumours	✓	✓	✓
	haematological malignancies	-	✓	✓
<i>Treatment intent</i>	curative/adjuvant	✓	✓	NS
	palliative	✓	✓	NS
<i>Treatment modalities</i>	systemic anticancer therapies	✓	✓	✓
	radiotherapy	-	-	-
	surgery	-	-	-
<i>Development Team</i>	physicians	✓	✓	✓
	nurses	-	-	-
	epidemiologists	-	-	-
	statisticians	✓	NS	-
	patients	-	-	-
	patient advocates	-	-	-
	public	-	-	-
<i>Intended Users/Stakeholders</i>	patients	-	✓	✓
	providers	-	✓	✓
	payers	✓	-	-
	policy makers	✓	-	-
	public	-	✓	-

the importance of the *patient* perspective

clinical impact is defined for populations,
not for individual patients

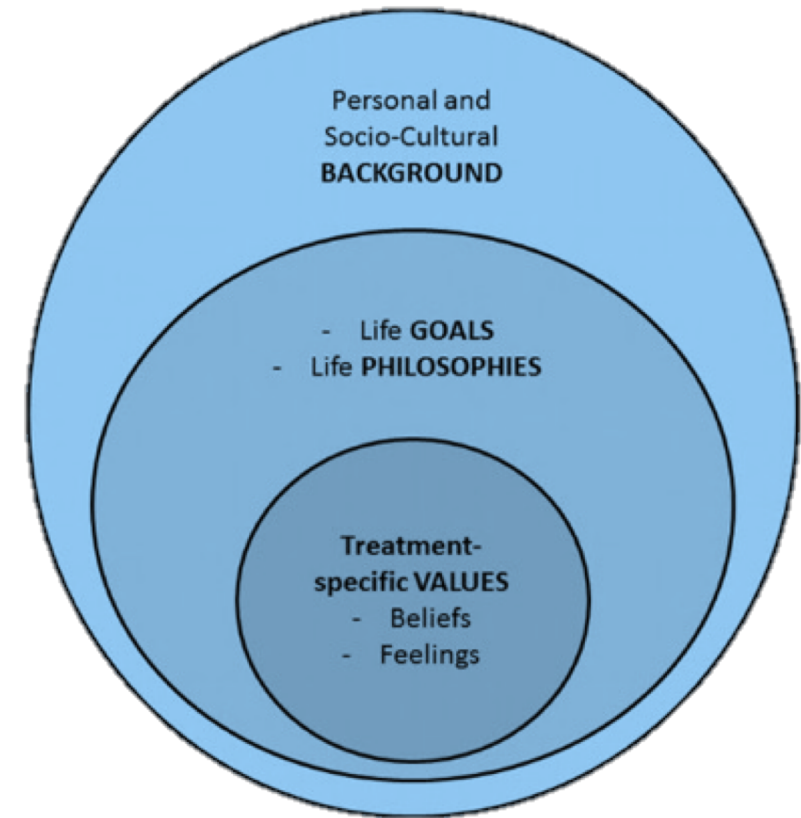
values vary between cancers and stages

values differ between groups & individuals

values shift over time

values vary with education, age, gender

values are impacted by care-giver burden



endpoints

		ESMO	ASCO	NCCN
<i>key criteria VBHC</i>	outcome	efficacy	efficacy	efficacy & effectiveness
	cost	-	direct cost	affordability
<i>clinical endpoints</i>	overall survival	✓	✓	NS
	progression-free survival	✓	✓	NS
	disease-free survival	✓	✓	NS
	treatment-free survival	-	✓	NS
	cause specific survival	-	-	-
	response rate	-	✓	-
	treatment-related mortality	-	-	-
	local control	-	-	NS
	reintervention rate	-	-	-
	quality of life	✓	-	-
	toxicity/safety*	✓	✓	✓
	palliation of symptoms	-	✓	✓

which endpoints?

The three major perspectives in evaluating clinical benefit and value.

Stakeholders	Priorities	Availability biases
Patient	Cure	Prior experiences from relatives, friends and acquaintances Information by media Prejudices and personal beliefs Possibility effect
	Long-term disease free survival	
	Long-term survival	
	Well-being, getting better	
	Continuing daily life	
	Disease control	
	Doing something	
Provider (doctors, hospital)	Cure	Scientific conformism Clinical conformism Prior experiences Response to therapy Non-miraculistic beliefs Possibility effect
	Patients' satisfaction	
	Symptoms palliation	
	HR and gains in median OS, PFS	
	Long-term OS PFS rates	
	Tumour responses	
	Doing something	
Payer	Cost-effectiveness	Economical perspective Scientific perspective Media impact Marginal cost
	Cost benefit	
	Public health relevance	
	Costs	

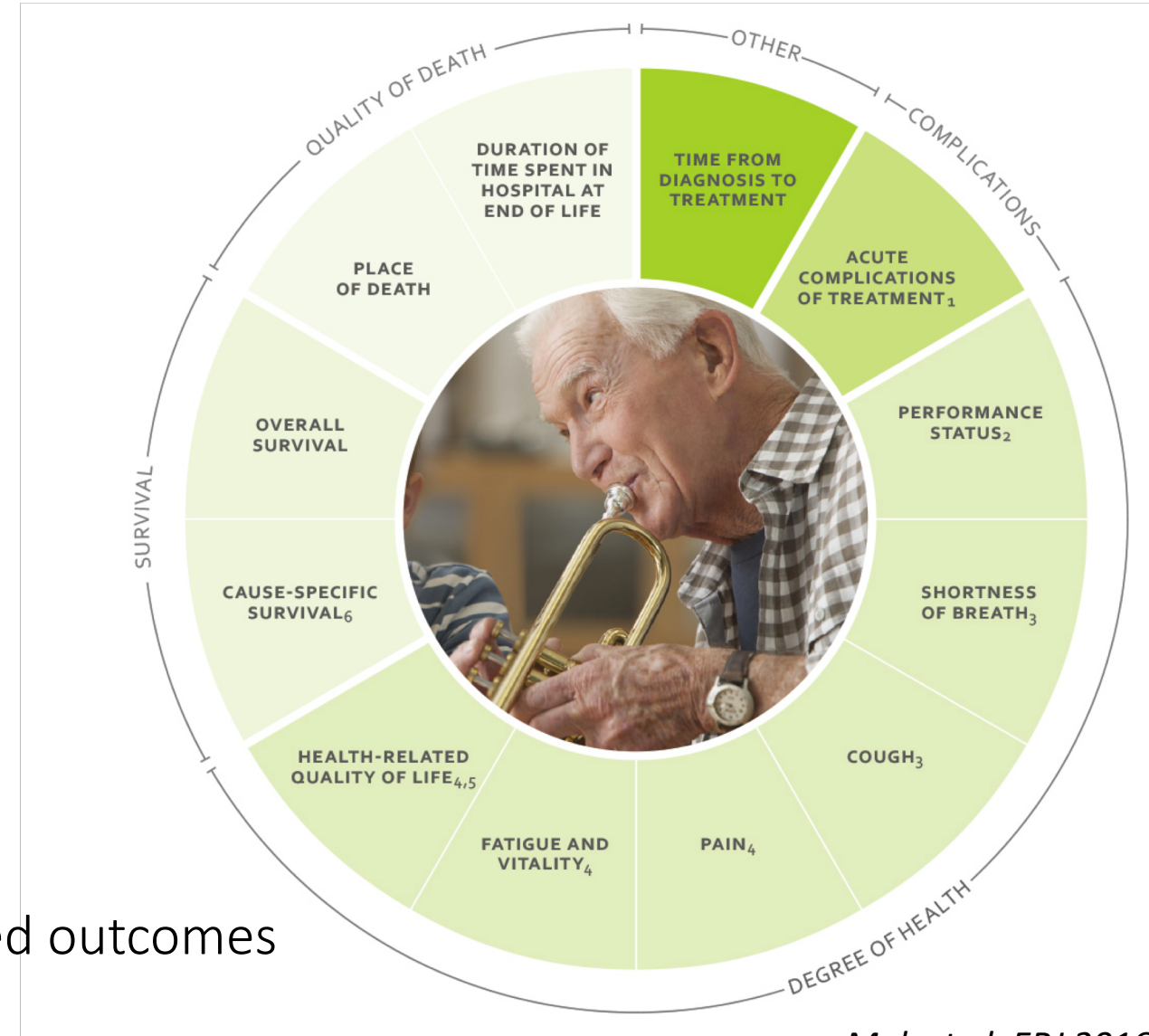
Abbreviations: HR, hazard ratio; OS, overall survival; PFS, progression-free survival.

which endpoints?



standard sets
of patient-centred outcomes

process indicators and efficiency
acute and long-term complications
survival, QoL and quality of death
clinical, administrative and patient-reported outcomes



level of evidence

	ESMO	ASCO	NCCN
<i>meta-analyses</i>	-	-	✓
<i>phase 3 trials</i>	✓	✓	✓
<i>phase 2 trials</i>	✓	-	✓
<i>cohort studies</i>	-	-	NS
<i>case control studies</i>	-	-	NS
<i>case series</i>	-	-	NS
<i>expert opinion</i>	-	-	✓

evidence generation in radiotherapy



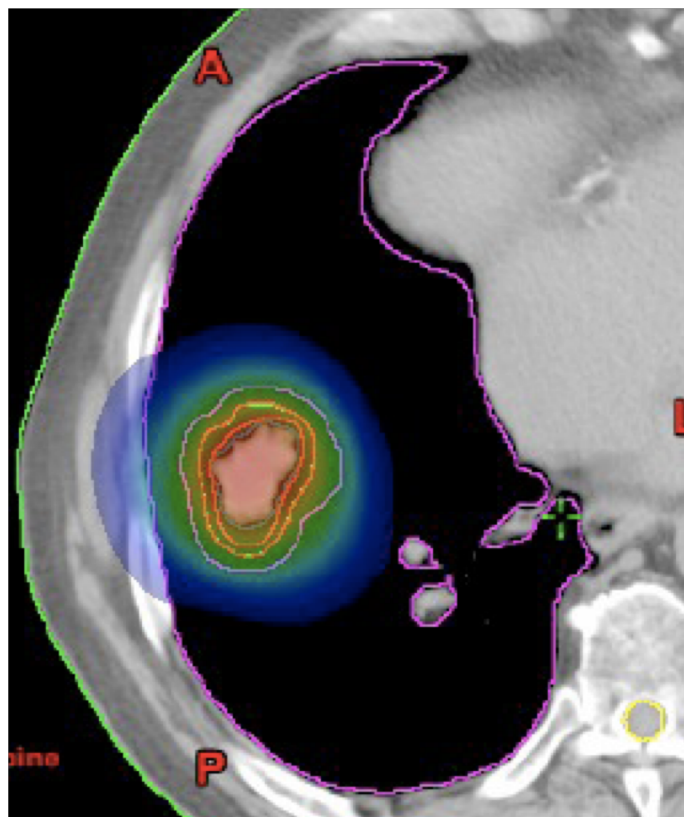
changing radiation technology
changing imaging modalities
changing patient population
changing disease presentation
changing surgical techniques
changing systemic treatment

acute and long-term toxicity

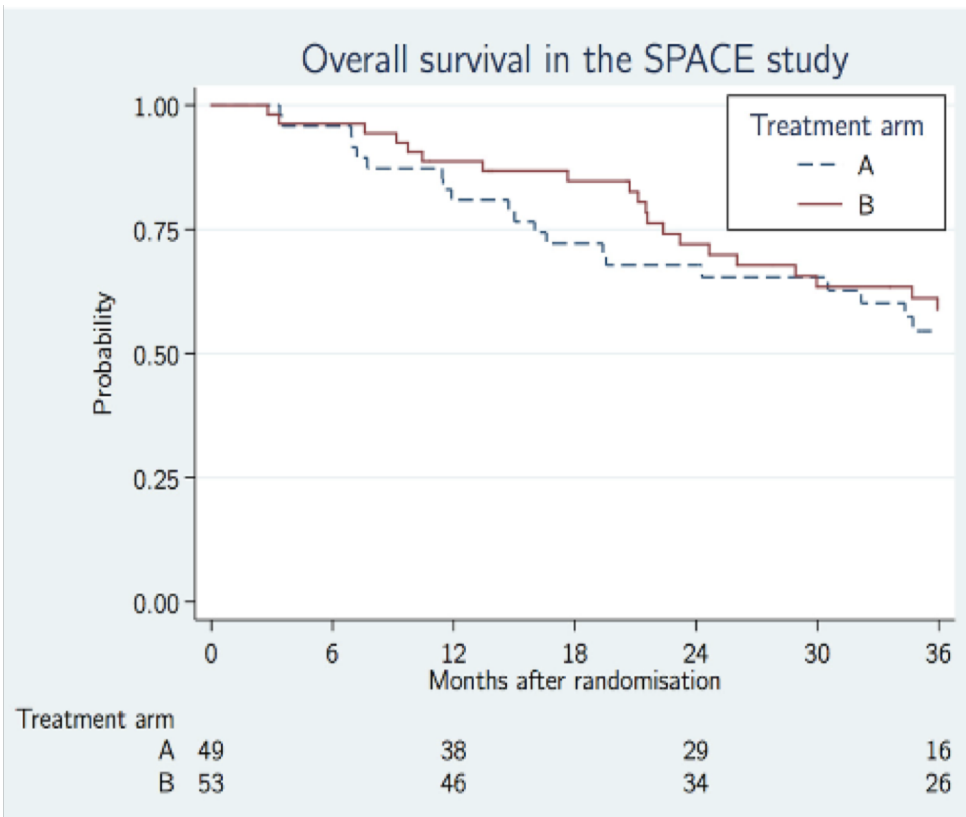
technology and techniques
outcome

time

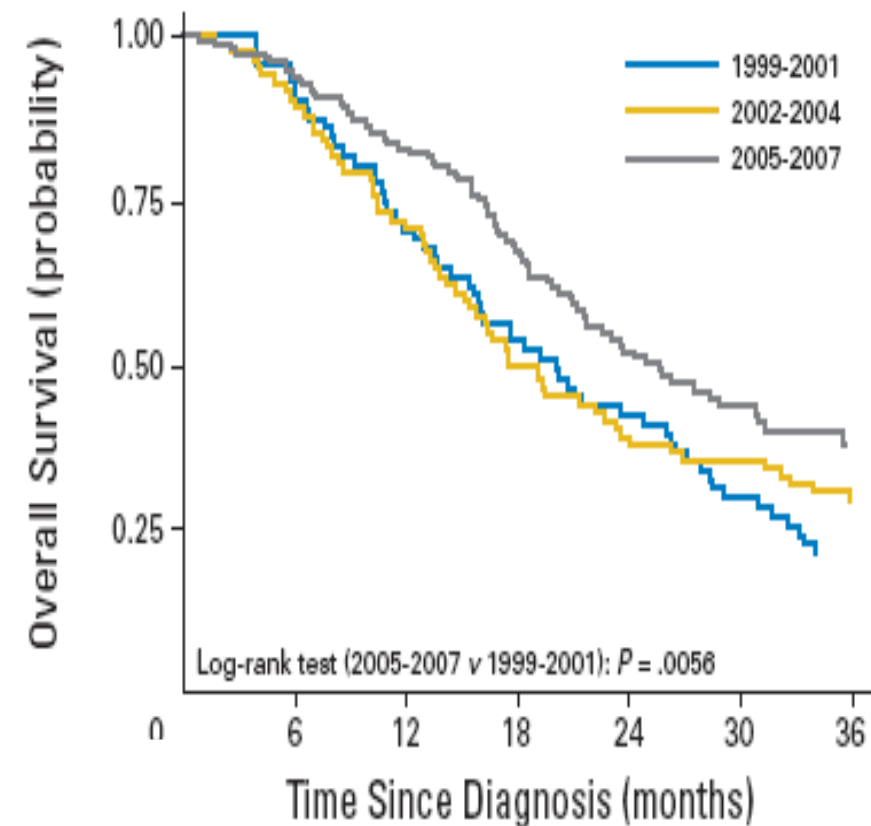
the value of innovation – lung radiotherapy



Stereotactic Body Radiotherapy
SBRT - SABR

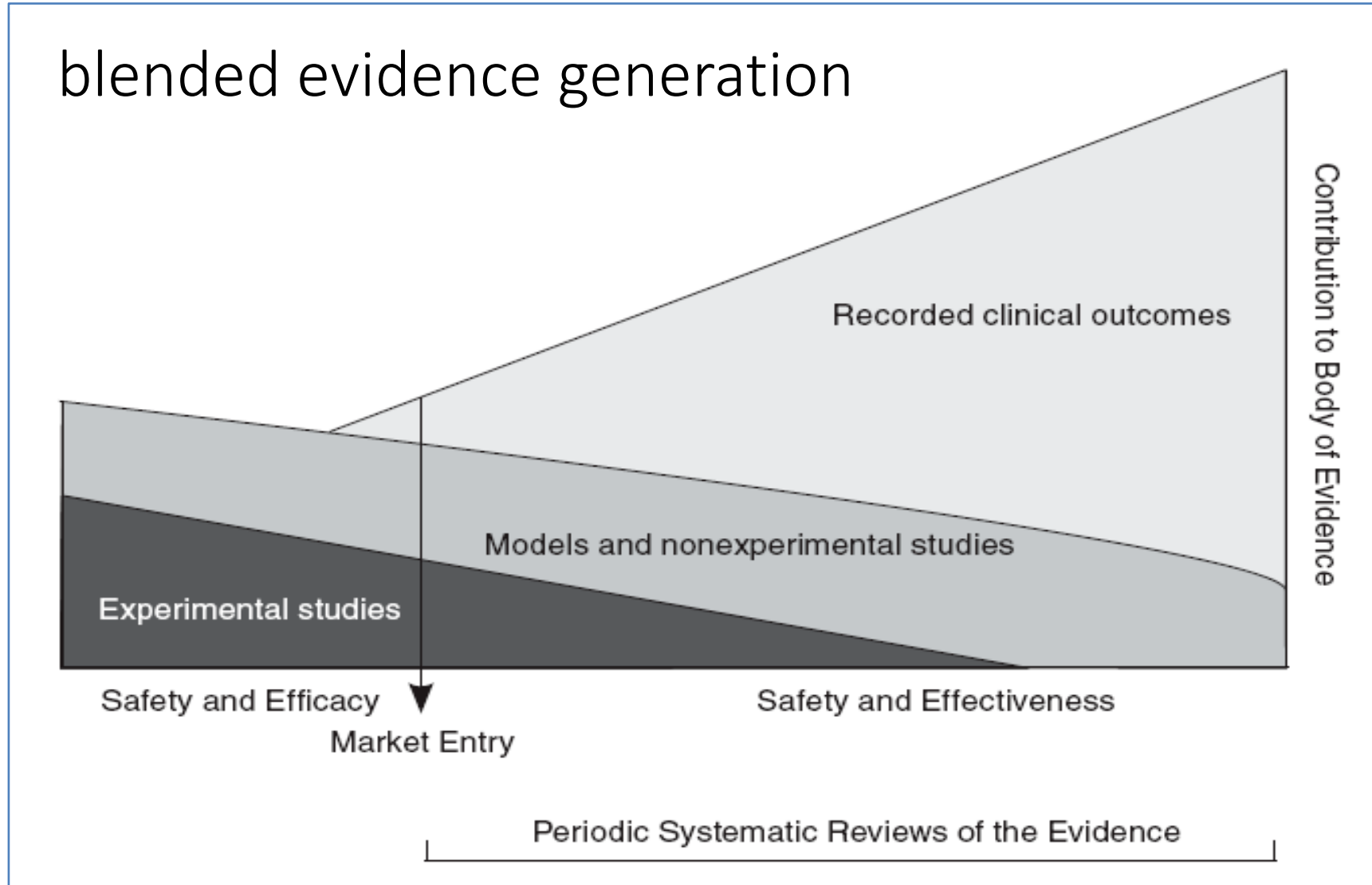


Randomised Controlled Trial
RCT



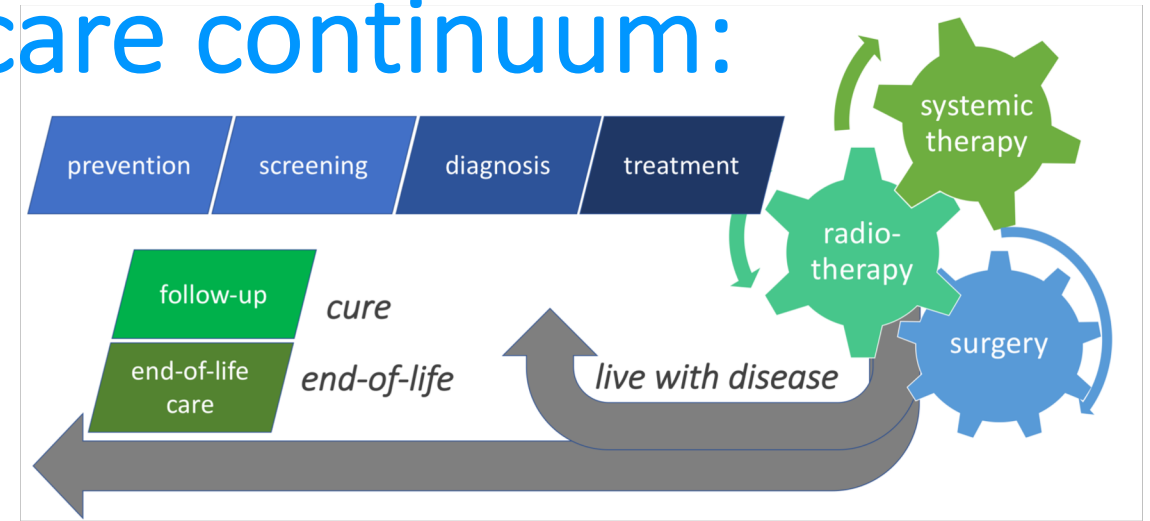
Real-World Evidence
RWE

which evidence?



value across the cancer care continuum: *where do we go next?*

3 calls to action



1

develop **value methodologies** for assessing loco-regional cancer treatment, aligned to other treatment modalities and interventions, to cover the entire cancer care continuum

2

obtain a greater consensus and agreement on the **endpoints and outcomes** most valued by patients

3

adopt a **blended approach to evidence generation**: from experimental data to non-experimental studies and real-life clinical outcomes

thanks to

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