



**ASIAGO-GALLIO**

HOTEL GAARTEN  
MEETING & BUSINESS

Via Kanotole, 13/15

**19 - 20 SETTEMBRE 2019**

SUMMER SCHOOL 2019 - UP TO DATE SULLA SANITÀ ITALIANA

**PROGRAMMARE IL FUTURO  
CONIUGANDO L'INNOVAZIONE**

2019 MOTORE  
**SANITÀ**  
Gestire il Cambiamento

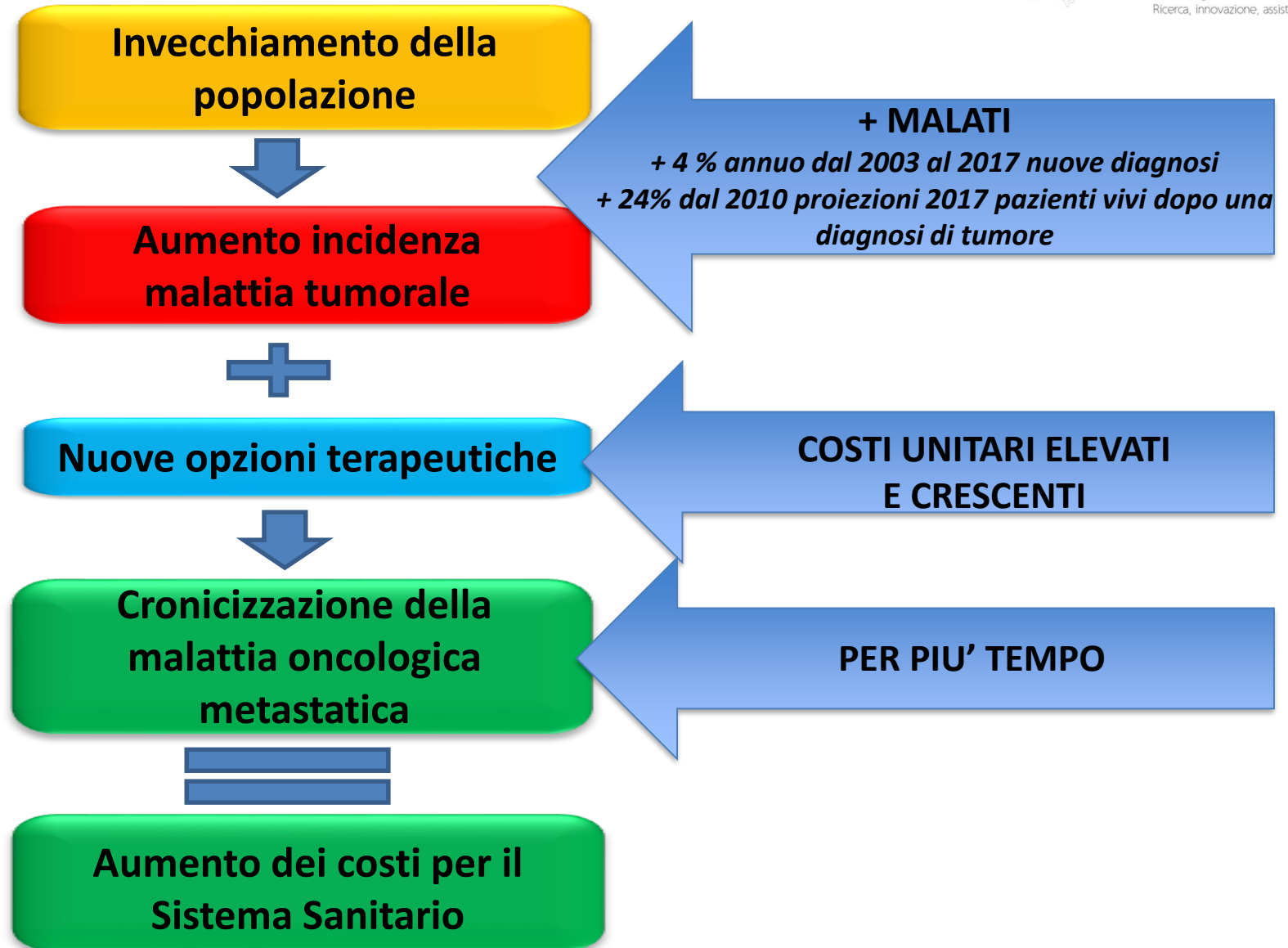
**Il nuovo scenario all'orizzonte in oncologia,  
tra cronicizzazione della malattia e sostenibilità**

*Alberto Bortolami*

*Coordinamento Scientifico Rete Oncologica del Veneto*

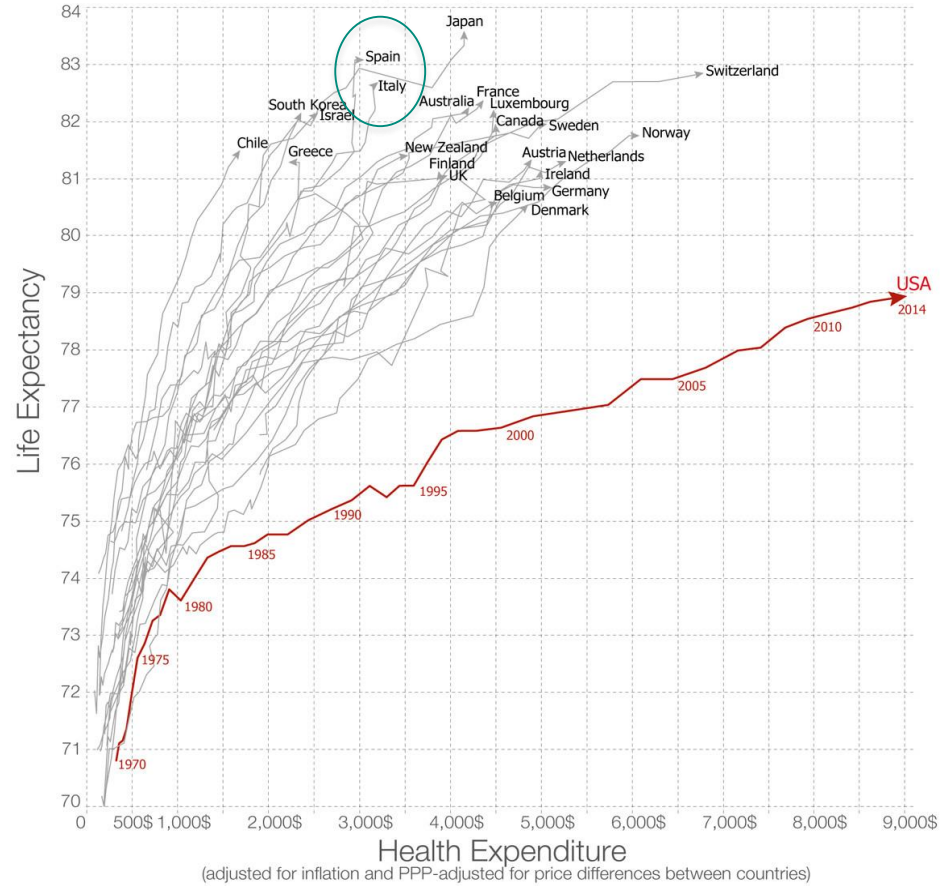
*Istituto Oncologico Veneto*

# SFIDA IN ONCOLOGIA

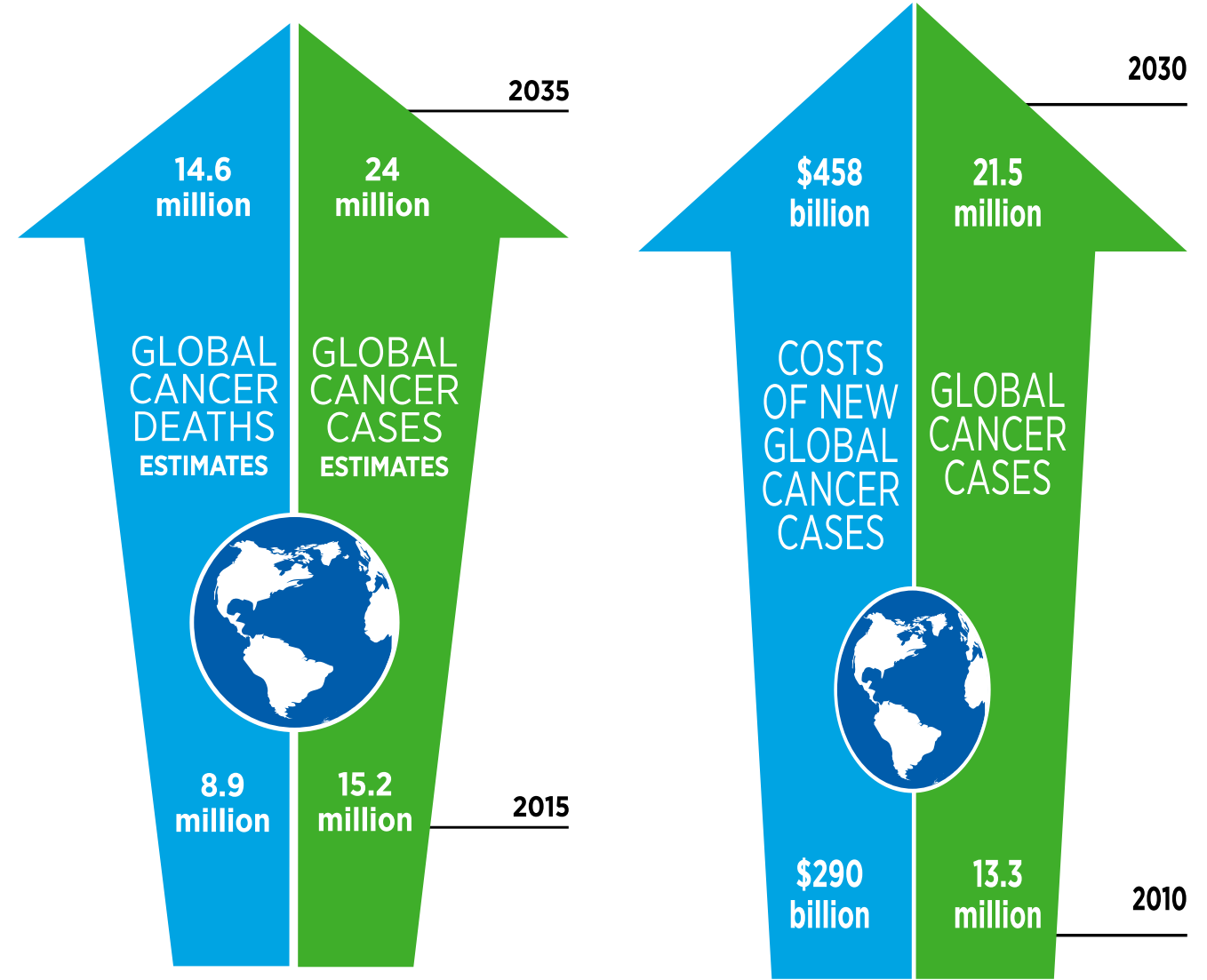


### Life expectancy vs. health expenditure over time (1970-2014) Our World in Data

Health spending measures the consumption of health care goods and services, including personal health care (curative care, rehabilitative care, long-term care, ancillary services and medical goods) and collective services (prevention and public health services as well as health administration), but excluding spending on investments. Shown is total health expenditure (financed by public and private sources).

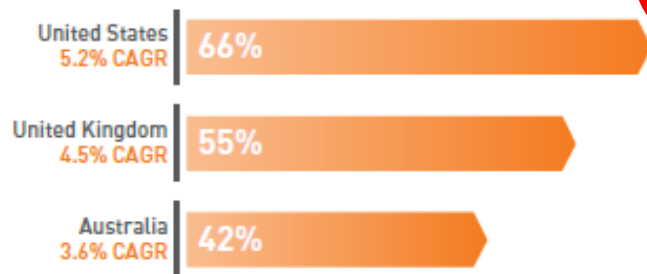


Data source: Health expenditure from the OECD; Life expectancy from the World Bank. Licensed under CC-BY-SA by the author Max Roser. The data visualization is available at OurWorldinData.org and there you find more research and visualizations on this topic.



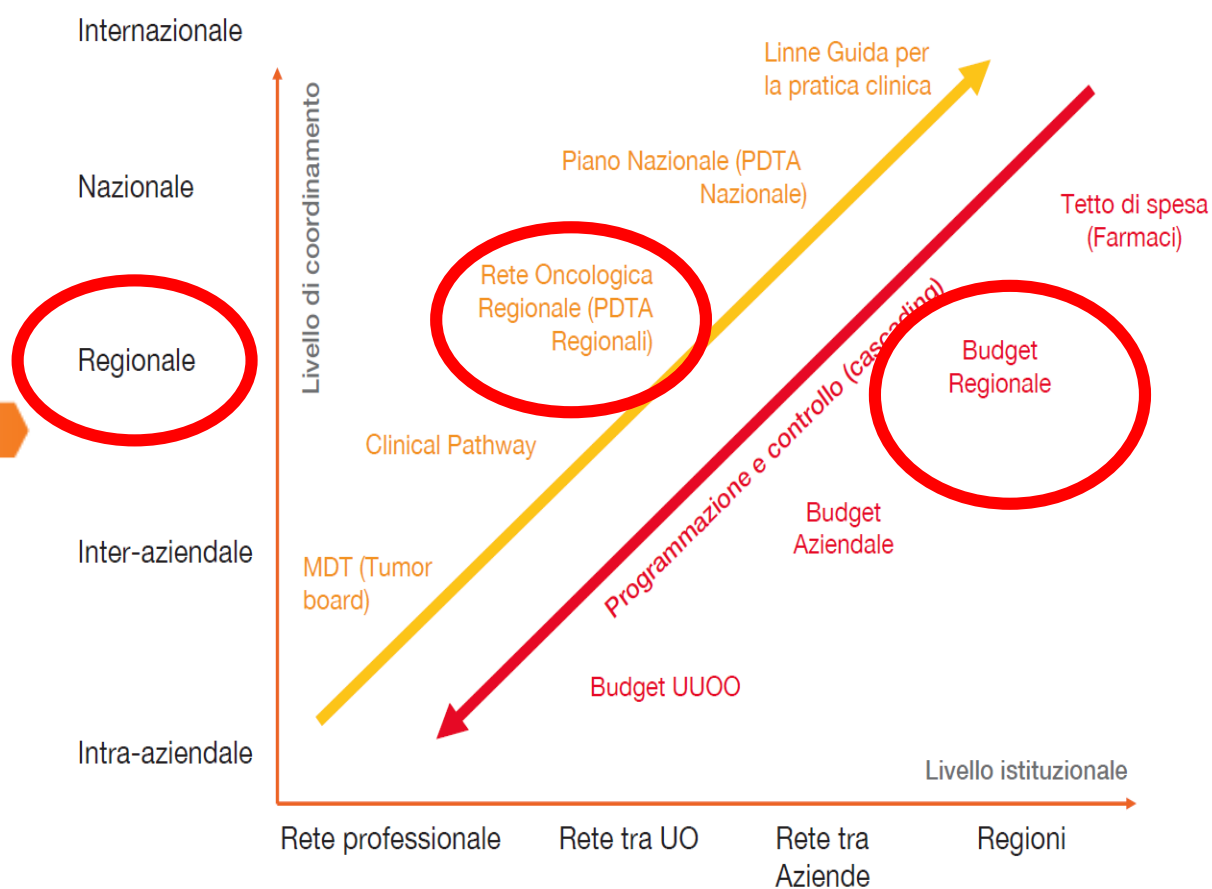
**DELIVERING AFFORDABLE  
CANCER CARE  
A VALUE CHALLENGE  
TO HEALTH SYSTEMS**

Report of the WISH Delivering Affordable



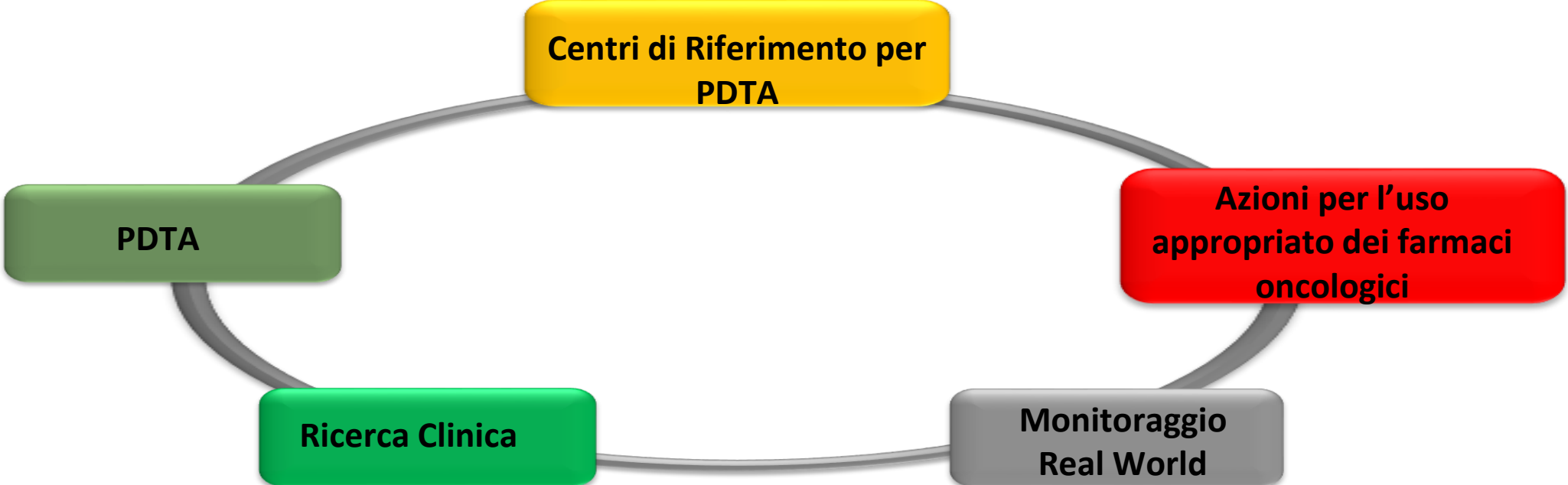
“The expectation is that cancer care costs will rise dramatically”

FIGURA 1: LIVELLI E FORME DI COORDINAMENTO DELLE CURE ONCOLOGICHE



Fonte: Elaborazione dell'autore

# *Le dimensioni di governo clinico della Rete*

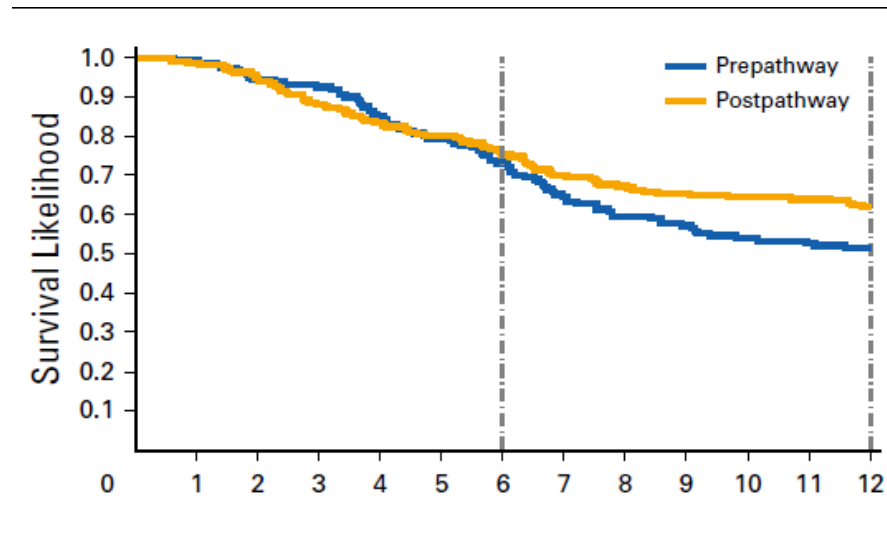


# Cost and Survival Analysis Before and After Implementation of Dana-Farber Clinical Pathways for Patients With Stage IV Non–Small-Cell Lung Cancer

David M. Jackman, Yichen Zhang, Carole Dalby, Tom Nguyen, Julia Nagle, Christine A. Lydon, Michael S. Rabin, Kristen K. McNiff, Belen Fraile, and Joseph O. Jacobson

**Table 2.** Cost Analysis for Patients With Stage IV Non–Small-Cell Lung Cancer Before and After Pathways

Pathways Cohort	Mean Cost (\$)	95% CI (\$)	P
<b>Unadjusted cost</b>			
Prepathway	64,508	53,140 to 75,876	.03
Postpathway	48,515	41,421 to 55,608	
<b>Adjusted cost</b>			
Prepathway	69,122	33,242 to 105,001	.01
Postpathway	52,037	25,200 to 48,849	



## Conclusion

After introduction of a clinical pathway in metastatic NSCLC, cost of care decreased significantly, with no compromise in survival. In an era where comparative outcomes analysis and value assessment are increasingly important, the implementation of clinical pathways may provide a means to coalesce and disseminate institutional expertise and track and learn from care decisions.

## Oncology Pathways & Outcome: MTB for Breast Cancer Patients

Country	Population & Nb	Primary Endpoint	Results
<b>Scottish study<sup>1</sup></b>	14,000 women with breast cancer	BC-specific mortality and all-cause mortality	<b>18% reduction in BC mortality at 5 years with multidisciplinary care</b>
<b>Belgian study<sup>2</sup></b>	25,178 women with breast cancer	Survival for BC by hospital volume	<b>Improved 5-year survival rates in high-volume versus low-volume hospitals (83.9% vs 78.8%, respectively)</b>

**PDTA Mammella**  
(Decreto Regionale: n. 114 del 24/10/2016)



**Coordinatori Scientifici**

NICOLA BALESTRIERI, PIERFRANCO CONTE, ANNAMARIA MOLINO

**Componenti Gruppo di lavoro PDTA DELLA RETE ONCOLOGICA VENETA PER I PAZIENTI AFFETTI DA TUMORE DELLA MAMMELLA**

ALBERTO AMADORI, GIORGIO BERNA, NICOLA BALESTRIERI, FERNANDO BOZZA, PAOLO BURELLI, PIERFRANCO CONTE, LAURA EVANGELISTA, ALESSANDRO GAVA, MASSIMO GION, STEFANIA GORI, MAURIZIO GOVERNA, VALENTINA GUARNERI, LICIA LAURINO, MARCO LORENZINI, GRAZIANO MENEHINI, ANNAMARIA MOLINO, ENRICO ORVIETO, GUIDO PAPACCIO, LUIGI PESCARINI, GIOVANNI PAOLO POLLINI, ANTONIO RIZZO, PAOLO SARTORI, SAMANTHA SERPENTINI, GIAMPIETRO STEFANI, ALESSANDRO TESTOLIN, LEONARDO TRENTIN, VINCENZO VINDIGNI, LIA ZANETTI, MANUEL ZORZI

Edizione 1:2016

# CENTRI DI RIFERIMENTO PDTA DEL CARCINOMA MAMMARIO IL MODELLO ORGANIZZATIVO INTEGRATO

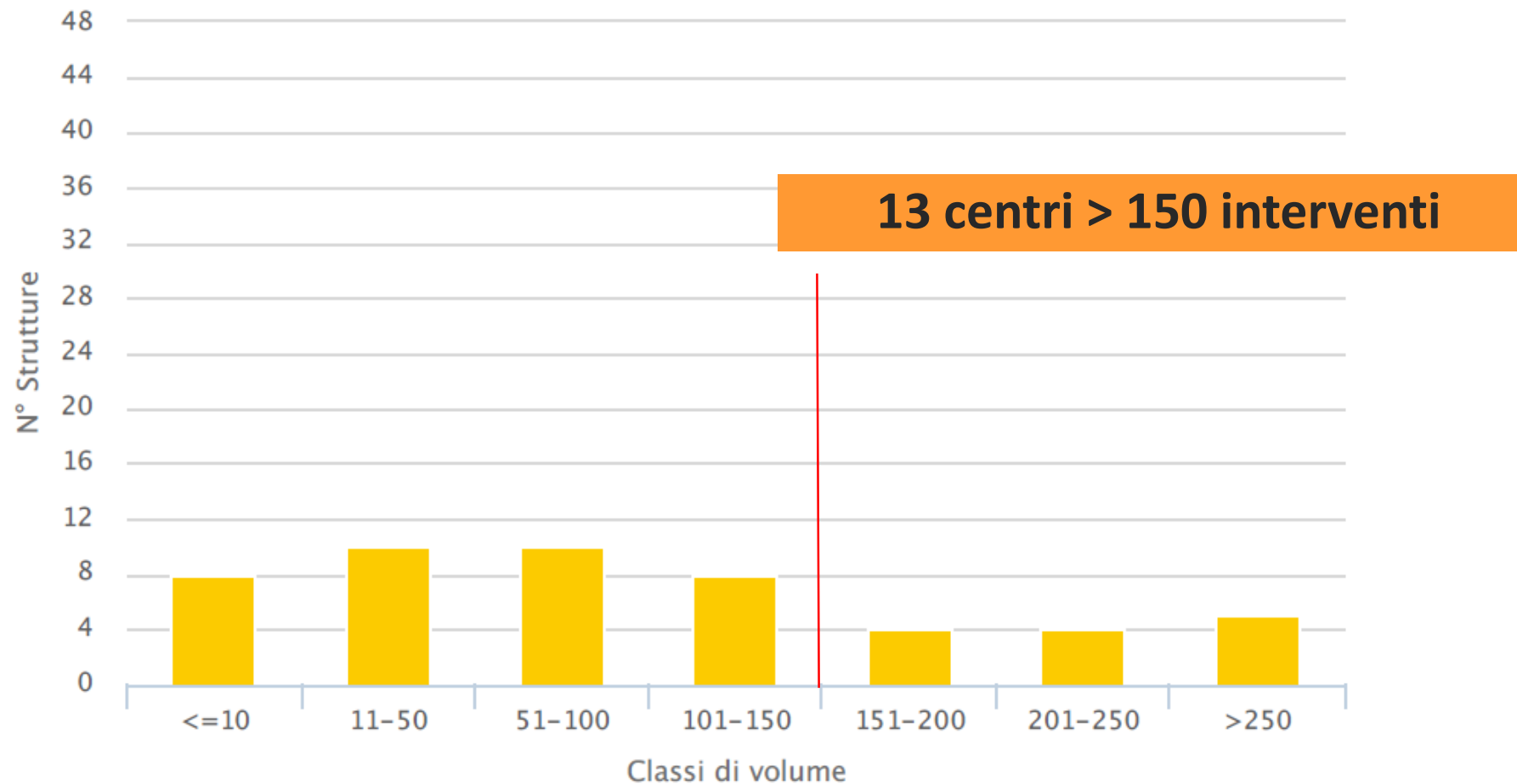
**Prevenzione-diagnosi precoce- trattamento  
del carcinoma della mammella**

**DGR n.1693/2017**



# Volumi di ricoveri intervento chirurgico per TM Mammella dati 2015

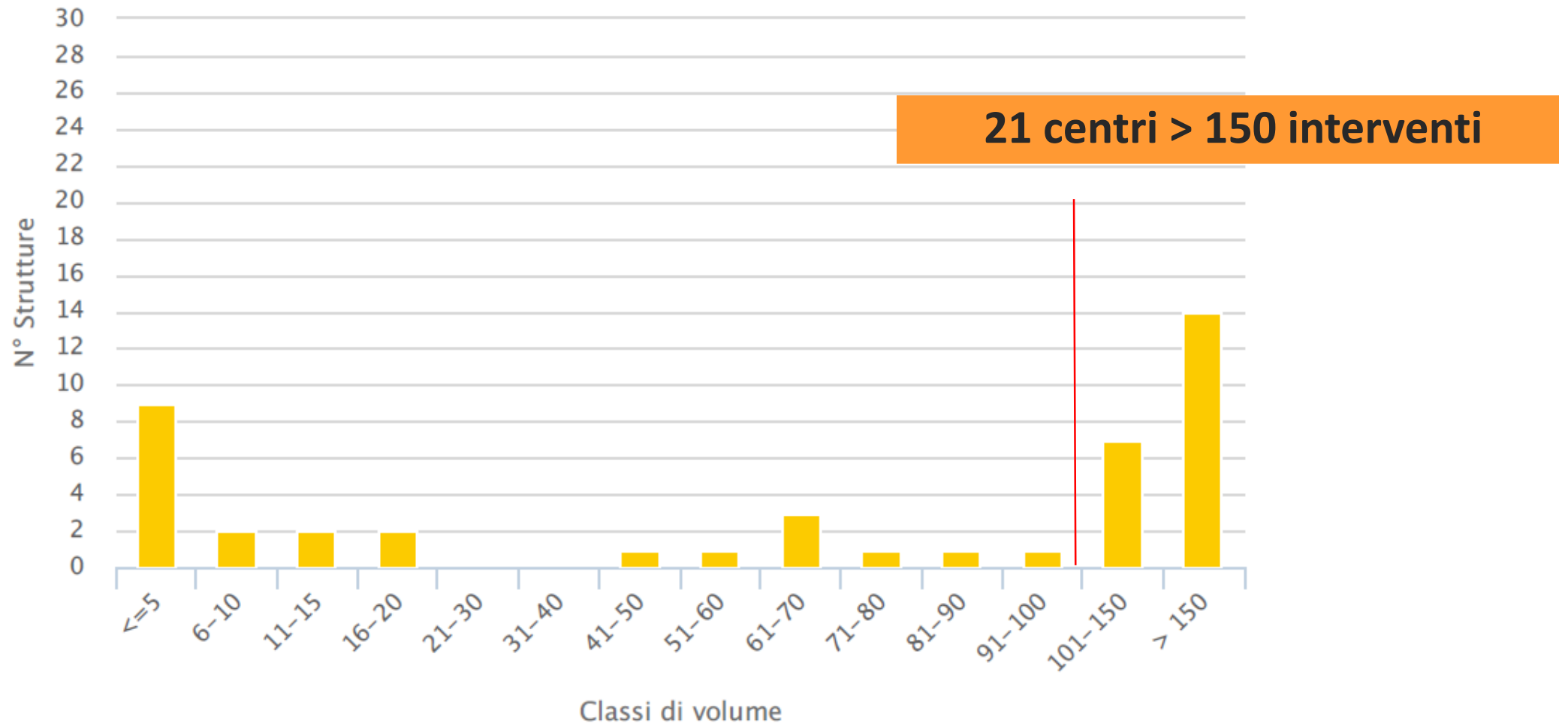
Intervento chirurgico per TM mammella: volume di ricoveri



# Volumi di ricoveri intervento chirurgico per TM Mammella Dati 2017



Intervento chirurgico per TM mammella: volume di ricoveri



## ONCOLOGY PATHWAYS & OUTCOME: TIME TO RADIOTHERAPY FOR H&N PATIENTS

Country	Population & Nb	Primary Endpoint
<b>NCDB USA<sup>1</sup></b>	<b>25,216</b> patients with stage III/IV H&N tumors	Median OS according to time to Radiotherapy after Surgery

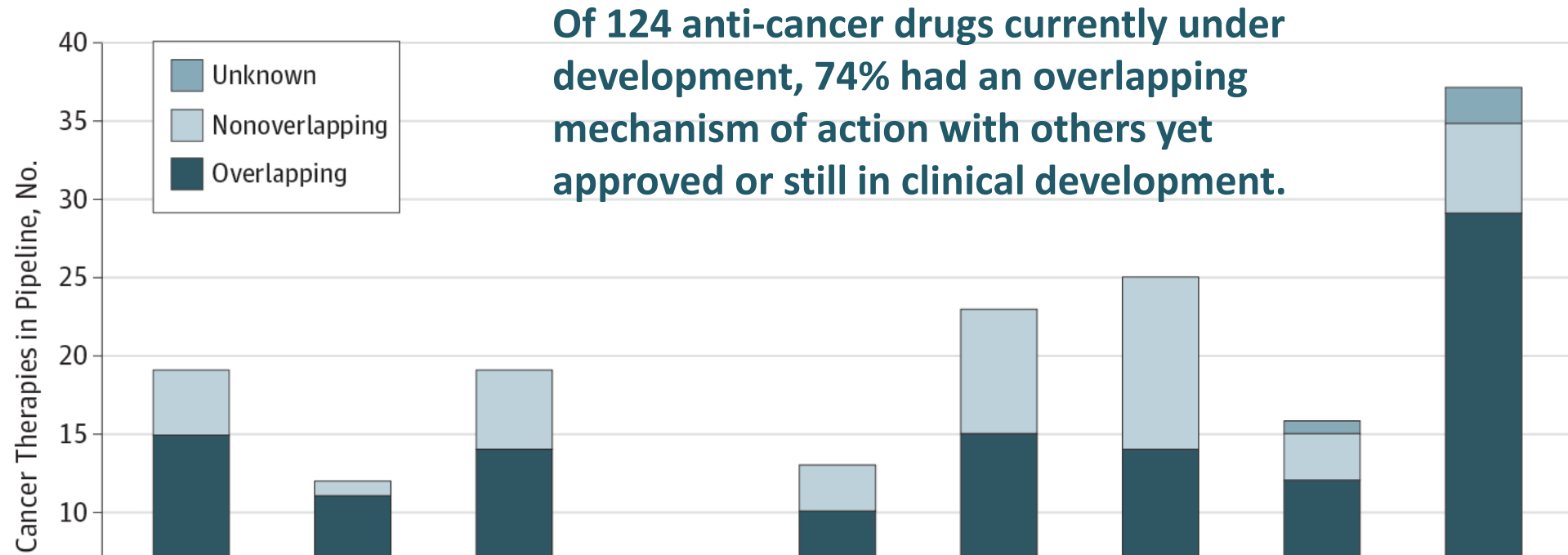
	Time to Radiotherapy		
	$\leq 42$ days	43-49 days	$\geq 50$ days
# of pts	9,765	4,735	10,716
Median OS yrs	<b>10.5</b>	<b>8.2</b>	<b>6.5</b>

1. Harris JP et al. JAMA Otolaryngol Head Neck Surg, 2018

# COSTO FARMACI ONCOLOGICI

- **Continue nuove indicazioni in oncologia (fase avanzata ≈20 nuovi farmaci + di 30 indicazioni 2017-2019)**
- **Nuovi farmaci a prezzi molto elevati (*terapie croniche al costo delle terapie in acuto*)**
- **Durata nuovi trattamenti.....lunghe durate costi elevati ( costo medio mensile dai 2.000 ai 5.000 €)**
- **Terapie in combinazione .....costi aumentano**
- **Difficoltà nel fare una budget impact**

# Costs of “me too” drugs



**Too many ‘me too’ drugs → current health budget burden**

- Are we pooling **too many resources**, money, and time into therapeutic indications **with relatively little gain**?
- From the **patient** perspective, are we delivering on their **expectations**?
- How can we best **avoid duplication** in drug discovery efforts?

# Stima del numero di nuovi pazienti potenzialmente eleggibili ALK+ ogni anno in Regione Veneto (N: 103)

Categoria di pazienti	%	n	Fonte
N.casi incidenti di tumore al polmone in Veneto		3153	Registro Tumori Veneto (stima per l'anno 2018, applicando i tassi di incidenza osservati nel 2013 alla popolazione 2018)
Casi caratterizzati istologicamente	76%	2396	Registro Tumori Veneto, stima per il 2016
NSCLC in Veneto	88%	2109	Rapporto AIOM AIRTUM 2018
NSCLC istologia non squamosa	70%	1476	Stima del Clinico
<b>NSCLC ALK+</b>	<b>7%</b>	<b>103</b>	<b>Linee Guida AIOM 2018 sul tumore al polmone</b>
NSCLC ALK+ stadio IIIb-IV	80%	83	Stima dei Clinici
NSCLC ALK+, n da trattare	90%	74	Stima dei Clinici
NSCLC ALK+, n da trattare con ECOG 0,1,2, %	90%	67	Stima dei Clinici

# The importance of an alk inhibitor in ALK+ patient journey

1L-CHEMOTHERAPY + 2L-CHEMOTHERAPY



*mPFS 10 months*

1L-CHEMOTHERAPY + **CRIZOTINIB** + 2L-CHEMOTHERAPY



*mPFS 16.3 months*

**CRIZOTINIB** + 1L-CHEMOTHERAPY + 2L-CHEMOTHERAPY



*mPFS 19.5 months*

1L-CHEMOTHERAPY + **CRIZOTINIB** + **CERITINIB** + 2L-CHEMOTHERAPY



*mPFS 21.7 months*

**CRIZOTINIB** + 1L-CHEMOTHERAPY + **CERITINIB** + 2L-CHEMOTHERAPY



*mPFS 24.9 months*

**ALECTINIB**.....



*mPFS 34 months*

# Durata della Immunoterapia nel NSCLC

## First Line Advanced

<i>KN-024</i>	<i>2 yrs (35 cycles)</i>
<i>KN-189</i>	<i>2 yrs</i>
<i>KN-407</i>	<i>2 yrs</i>
<i>KN-042</i>	<i>2 yrs</i>
<i>CM 227</i>	<i>2 yrs</i>
<i>IM150</i>	<i>Indefinite</i>
<i>IM132</i>	<i>Indefinite</i>

## Second+ Line

<i>KN-010</i>	<i>2 yrs</i>
<i>CM-057</i>	<i>Indefinite</i>
<i>CM-017</i>	<i>Indefinite</i>
<i>OAK</i>	<i>Indefinite</i>

- Time to generate a response?
- Time to maintain a response?

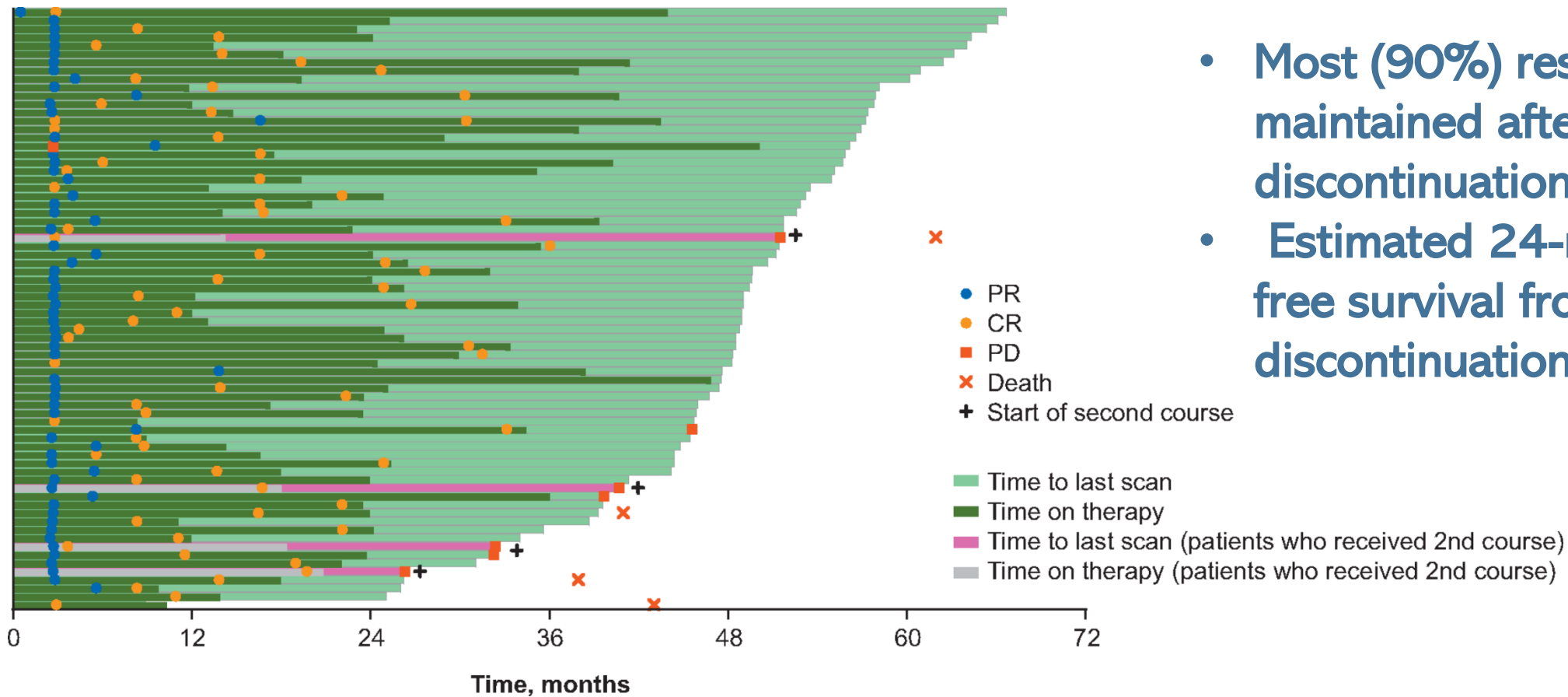


# KEYNOTE001

## Lesson from melanoma 5Y-FU

**N=67, pts discontinued pembro after CR for observation**

- Most (90%) responses were maintained after discontinuation
- Estimated 24-month disease-free survival from treatment discontinuation was 89.9%.



## From Diagnostic-Therapeutic Pathways to Real-World Data: A Multicenter Prospective Study on Upfront Treatment for *EGFR*-Positive Non-Small Cell Lung Cancer (MOST Study)

GIULIA PASELLO,<sup>a</sup> GIOVANNI VICARIO,<sup>b</sup> FABLE ZUSTOVICH,<sup>c</sup> FRANCESCO ONIGA,<sup>d</sup> STEFANIA GORI,<sup>e</sup> FRANCESCO DI MONTE,<sup>f</sup> ANDREA BONETTI,<sup>g</sup>  
ADOLFO FAVARETTO,<sup>h</sup> SILVIA TOSO,<sup>i</sup> ROBERTA REDELOTTI,<sup>j</sup> ANTONIO SANTO,<sup>k</sup> DANIELE BERNARDI,<sup>l</sup> PETROS GIOVANNI,<sup>m</sup> CRISTINA OLIANI,<sup>n</sup>  
LORENZO CALVETTI,<sup>o</sup> CARLO GATTI,<sup>p</sup> GIOVANNI PALAZZOLO,<sup>q</sup> ZORA BARETTA,<sup>n</sup> ALBERTO BORTOLAMI,<sup>a</sup> LAURA BONANNO,<sup>a</sup> MARCO BASSO,<sup>b</sup>  
JESSICA MENIS,<sup>a,r</sup> DONATELLA DA CORTE,<sup>c</sup> STEFANO FREGA,<sup>a</sup> VALENTINA GUARNERI,<sup>a,r</sup> PIERFRANCO CONTE,<sup>a,r</sup> ON BEHALF OF VENETO  
ONCOLOGY NETWORK

### [Real-World Study on EGFR+ NSCLC](#)

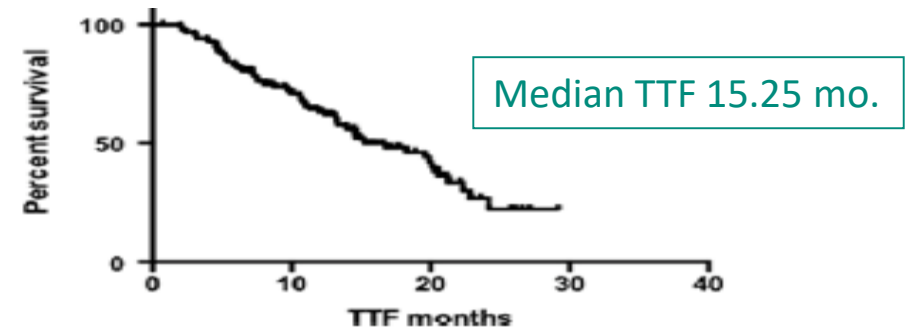
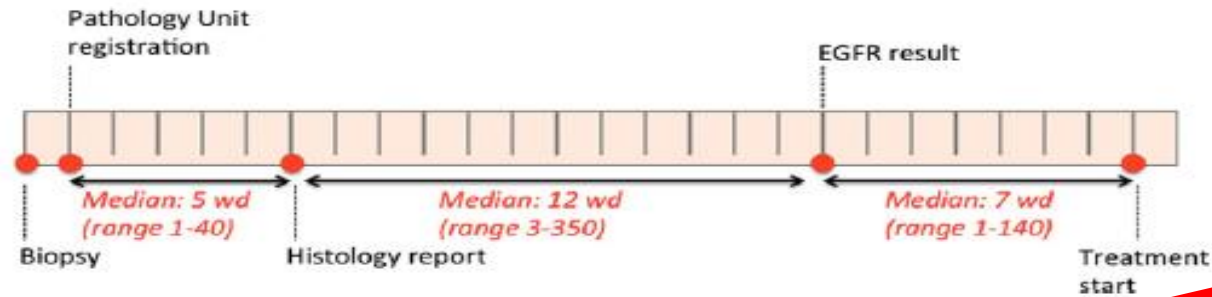
The MOST study is a real-world data collection reporting a multicenter adherence and compliance to diagnostic-therapeutic pathways defined for patients with epidermal growth factor receptor-mutant non-small cell lung cancer. This represents an essential element of evidence-based medicine, providing information on patients and situations that may be challenging to assess using only data from randomized controlled trials.

**This study may be of interest to various stakeholders (patients, clinicians, and payers), providing a meaningful picture of the value of a given therapy in routine clinical practice.**

# Drug cost and time on treatment

## MOST Study

109 EGFR-mutant patients treated with gefitinib, erlotinib and afatinib



**Oncologists treat beyond RECIST-PD**

Drug	Reimbursement method	mPFS (pivotal trials)	mPFS (real trials)	mTTF MOST, mo	mTTF pivotal trials, mo	Monthly price, €	Cost/patient based on mTTF (MOST, PBR excluded), €	Real BI based on mTTF (MOST, PBR excluded), €	Cost/patient based on mPFS (pivotal trials, PBR excluded), €	Theoretical BI based on mPFS (pivotal trials, PBR included), €	BI gap (real-theoretical), €
Gefitinib	3 mo PBR	9	14	14.6	9.5	2,190	27,474.43	2,007,949.98	20,808.14	1,234,754.73	773,195.25
Erlotinib	50% CS (first two packs)	18	NA	22.9	9.7	1,865	40,834.08	735,013.49	16,221.76	291,991.66	443,021.83
Afatinib	6 mo PBR	22	18	15.3	11	1,796	31,978.82	495,638.69	19,752.86	286,811.49	208,827.21
<b>Total</b>		109						<b>3,238,602.17</b>		<b>1,813,557.88</b>	<b>1,425,044.29</b>

Abbreviations: BI, budget impact; CS, cost sharing; mPFS, progression-free survival; mTTF, time to treatment failure; NA, XXXX; PBR, payment by result; pts, patients.