

# Upper GI Cancers: an overview

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# Disclosures (1)



Consultant or advisory role: BMS, Lilly and Nordic  
Pharma

Research funding: Bayer, BMS, Celgene, Janssen, Lilly,  
Nordic Pharma, Philips, Roche

## Disclosures (2)



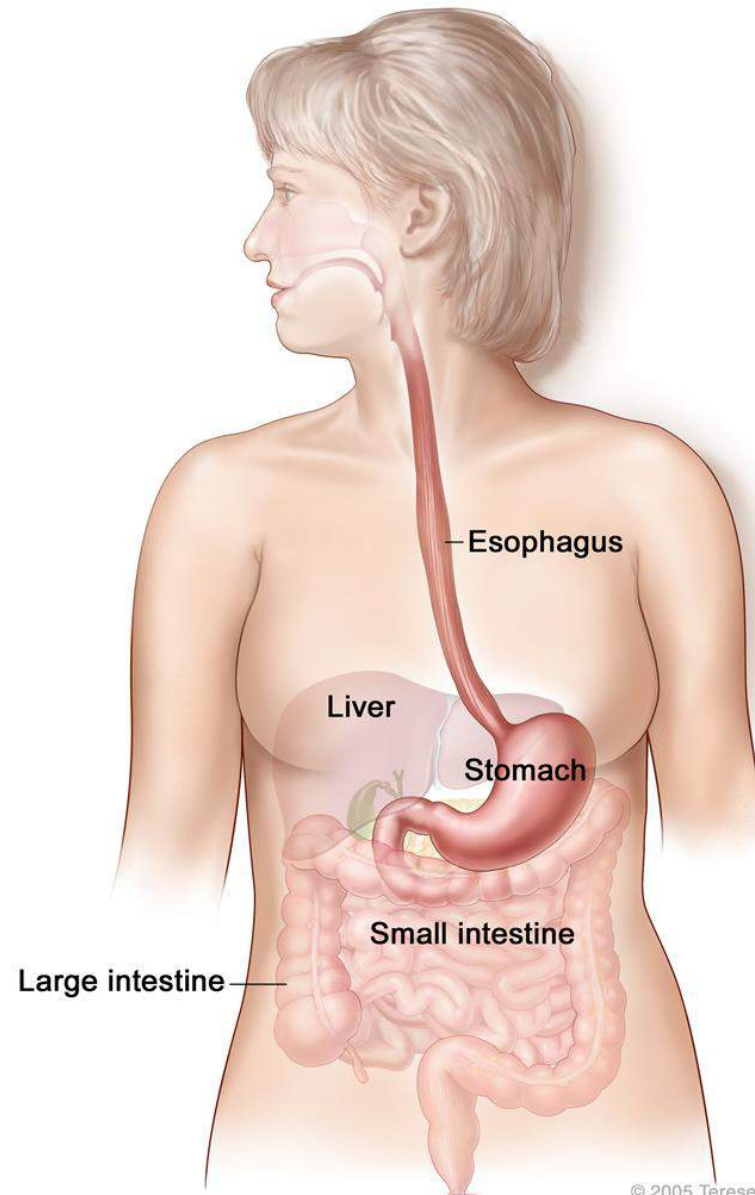
## Disclosures (2)



# Upper gastrointestinal cancer



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# Belongs to the most deadliest cancers



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## Cancers with a Five-year Survival Rate Below 50%

	2016 Est. Cases	2016 Est. Deaths	Five-Year Relative Survival Rate
<b>Pancreas</b>	<b>53,070</b>	<b>41,780</b>	<b>8%</b>
<b>Lung</b>	<b>224,390</b>	<b>158,080</b>	<b>18%</b>
<b>Liver &amp; intrahepatic bile duct</b>	<b>39,230</b>	<b>27,170</b>	<b>18%</b>
<b>Esophagus</b>	<b>16,910</b>	<b>15,690</b>	<b>20%</b>
<b>Stomach</b>	<b>26,370</b>	<b>10,730</b>	<b>30%</b>
<b>Brain &amp; other nervous system</b>	<b>23,770</b>	<b>16,050</b>	<b>35%</b>
<b>Ovary</b>	<b>22,280</b>	<b>14,240</b>	<b>46%</b>
<b>Myeloma</b>	<b>30,330</b>	<b>12,650</b>	<b>49%</b>
Leukemia	60,140	24,400	62%
Colon & rectum	134,490	49,190	66%
Non-Hodgkin lymphoma	72,580	20,150	72%
Kidney & renal pelvis	62,700	14,240	74%
Urinary bladder	76,960	16,390	79%
Uterine corpus	60,050	10,470	83%
Breast	249,260	40,890	91%
Melanoma of the skin	76,380	10,130	93%
Prostate	180,890	26,120	99%

**8 of the  
Deadliest  
Cancers**

*(aka Recalcitrant Cancers)*

**4 of 8 are  
upper GI**

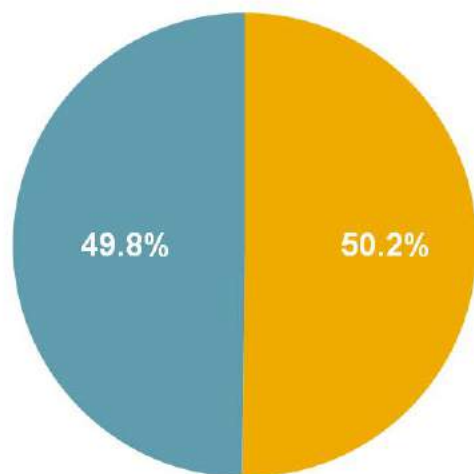
# Belongs to the most deadliest cancers



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Deadliest Cancers Make Up

## 50% of all Cancer Deaths



2016 Est. Cancer Deaths

8 deadliest site-specific cancers combined

**296,390**

All other cancers combined

**299,300**



**Aims**



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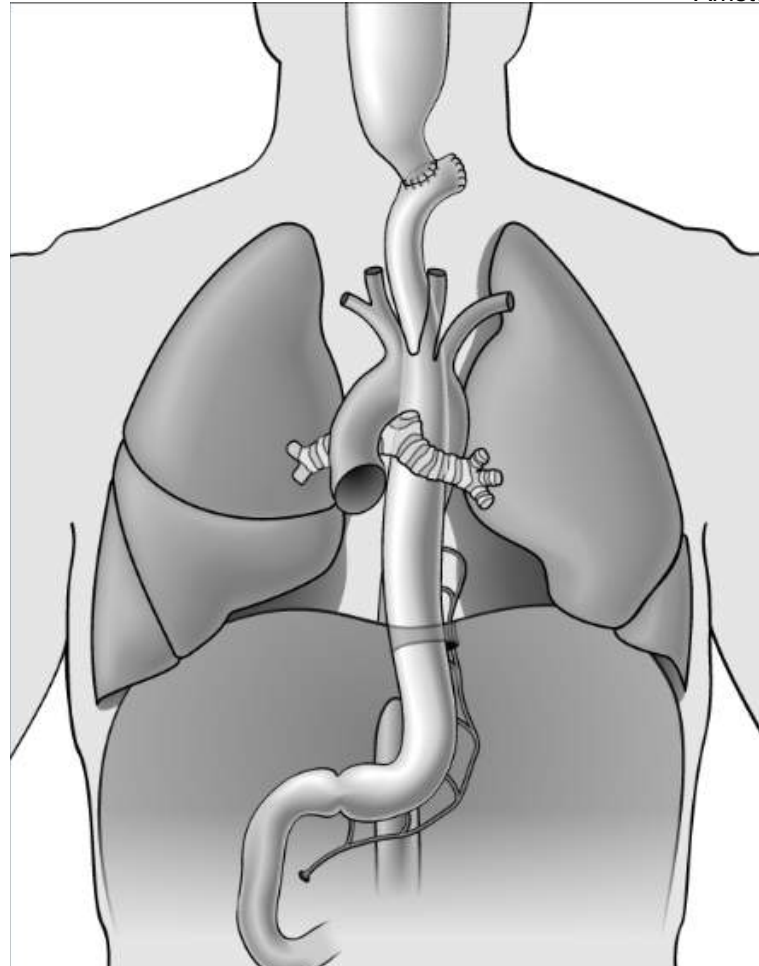
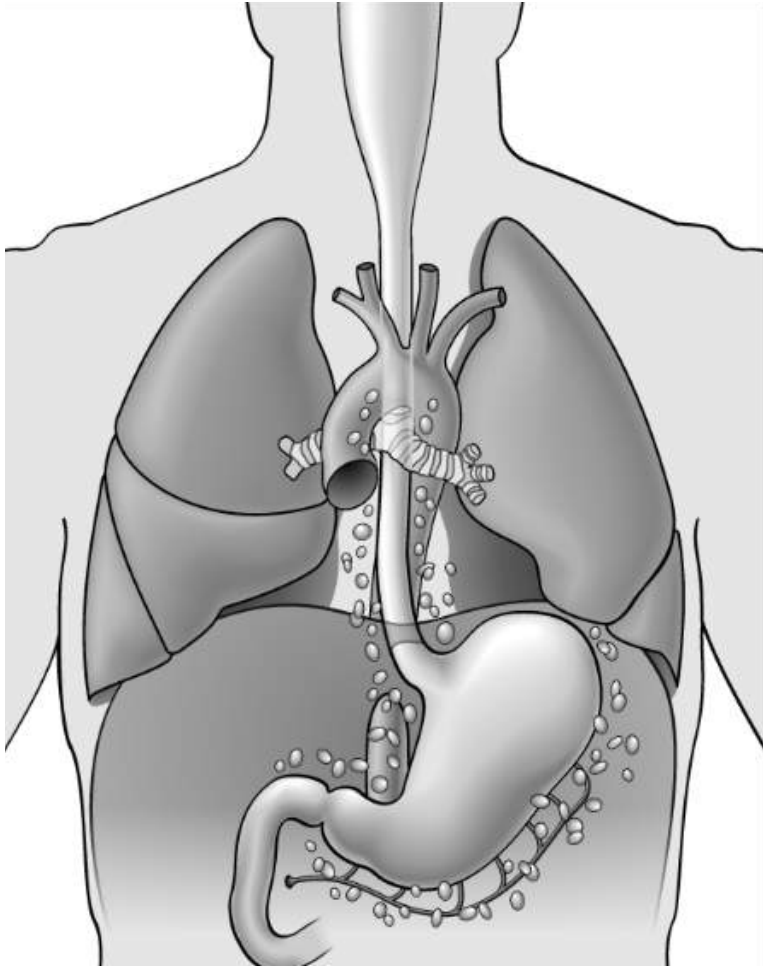
**Improve survival!**

**Maintain quality of life!**

# Treatment of resectable esophageal/gastric cancer



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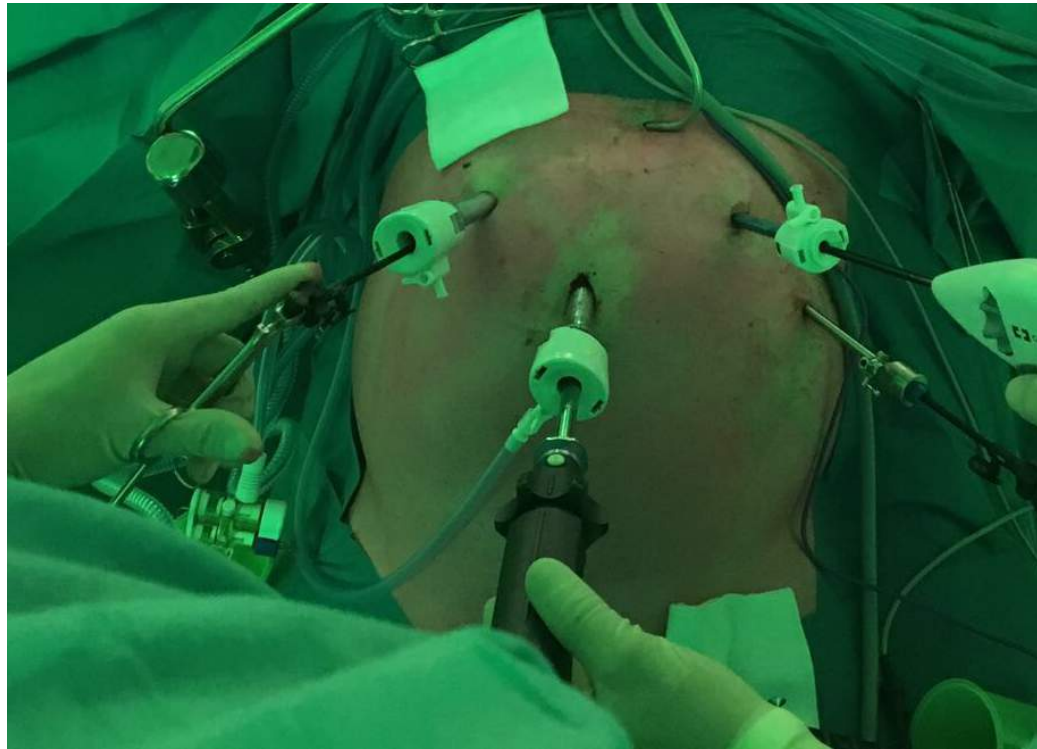


Courtesy dr. S. Gisbertz, upper GI surgeon

# Resection esophageal cancer



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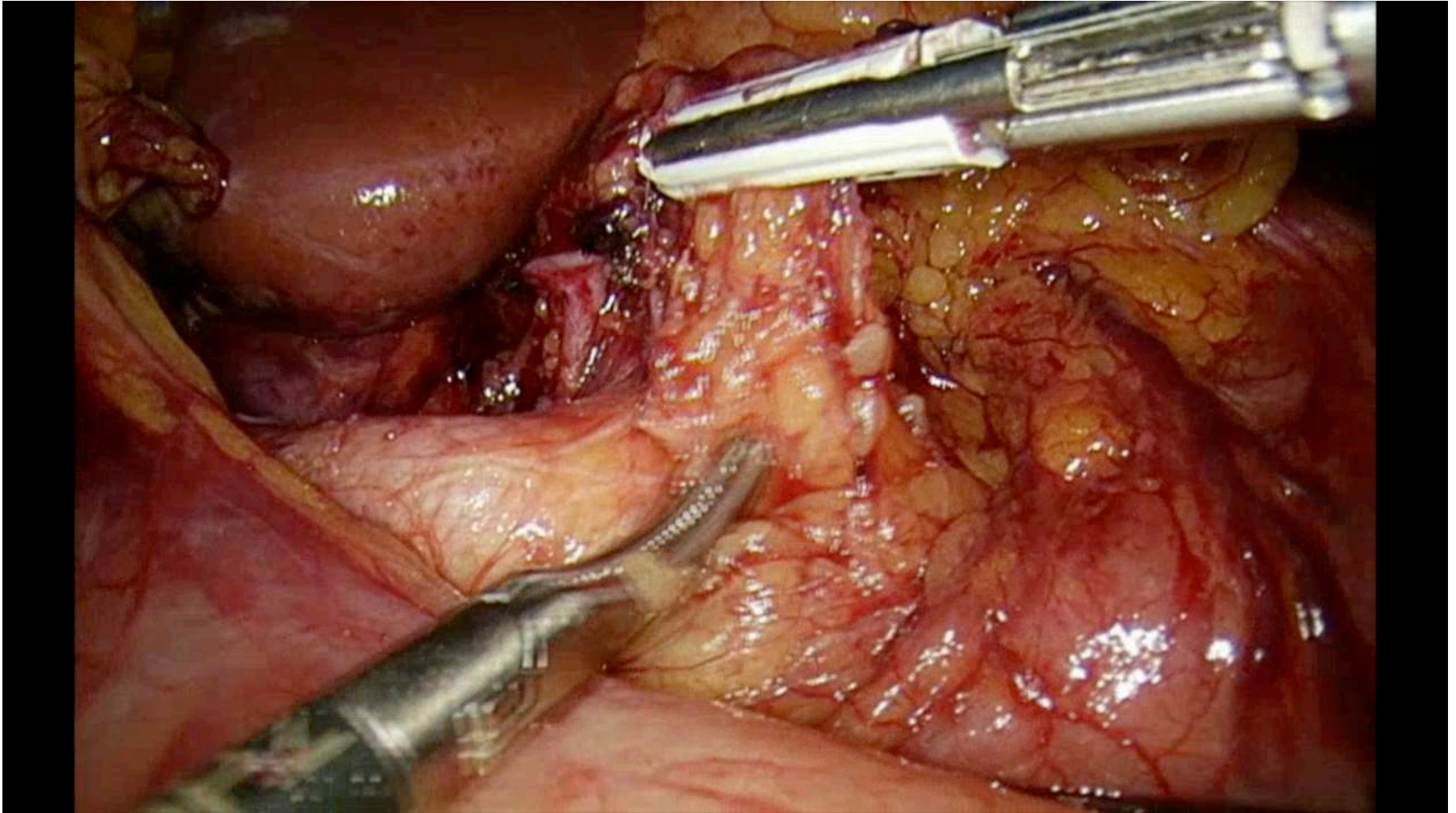


Courtesy dr. S. Gisbertz, upper GI surgeon

# Lymph nodes



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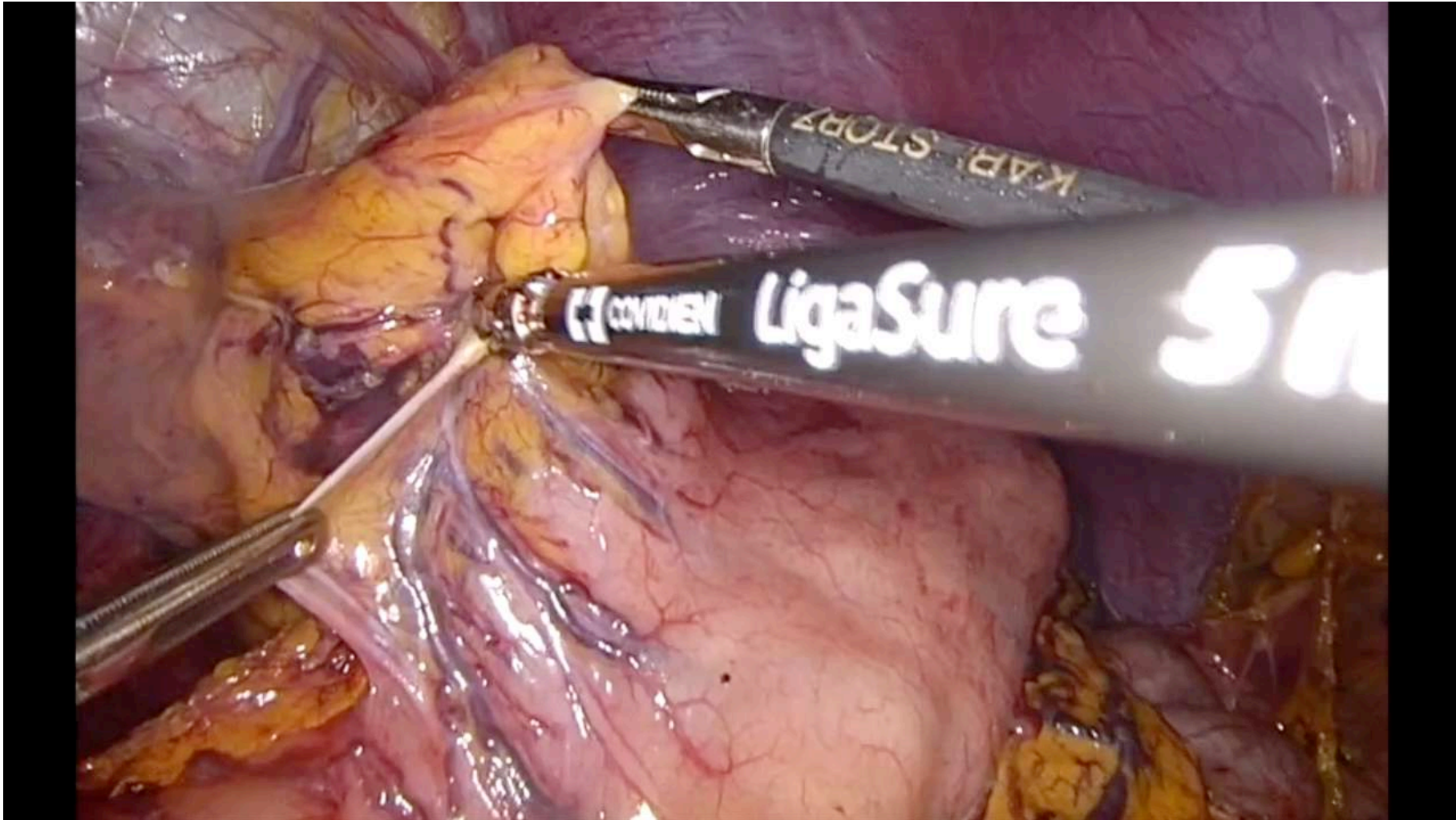


Courtesy dr. S. Gisbertz, upper GI surgeon

# Creation of a gastric tube



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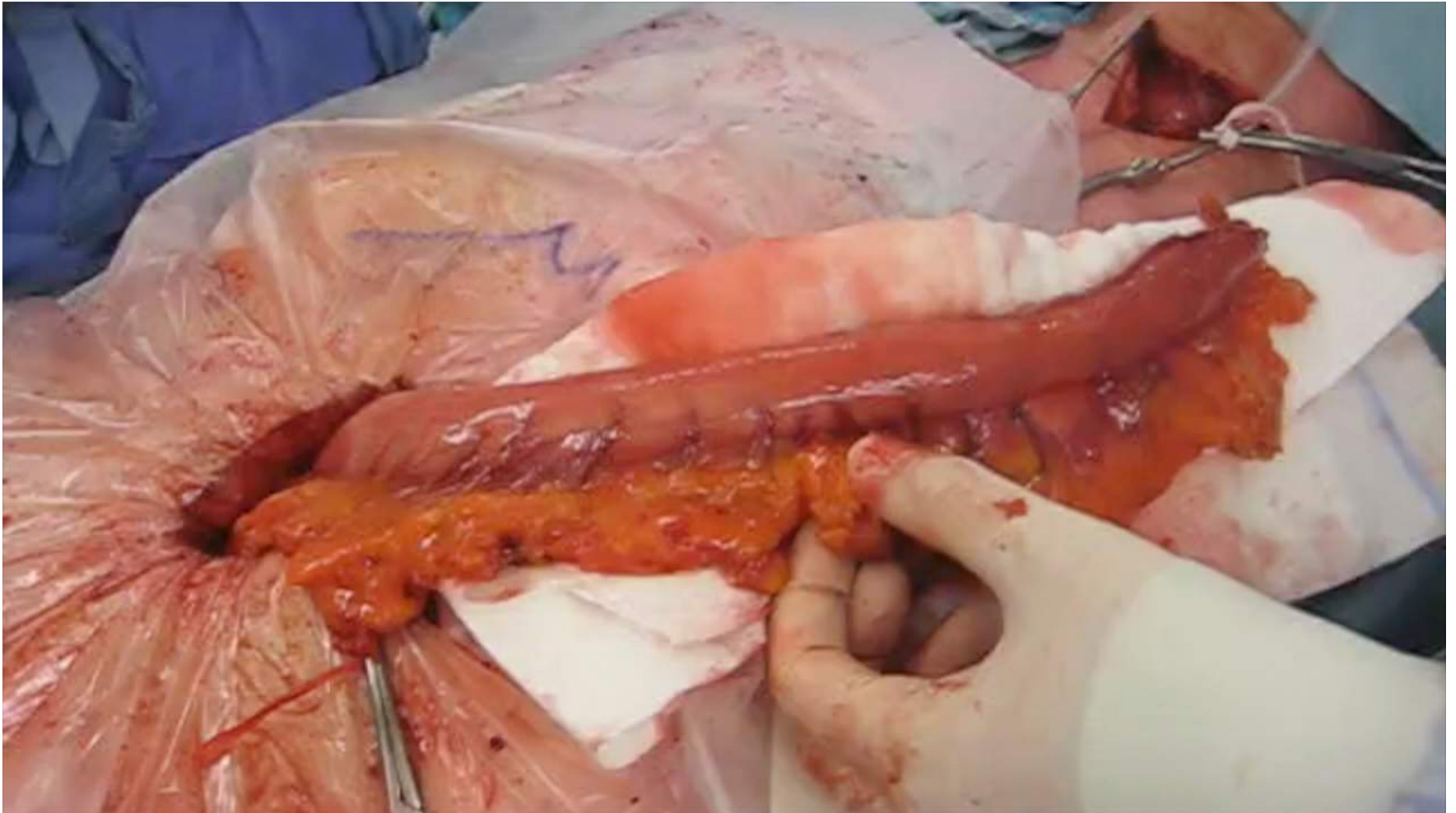


Courtesy dr. S. Gisbertz, upper GI surgeon

# Creation of a gastric tube



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Courtesy dr. S. Gisbertz, upper GI surgeon

# Resection of gastric cancer



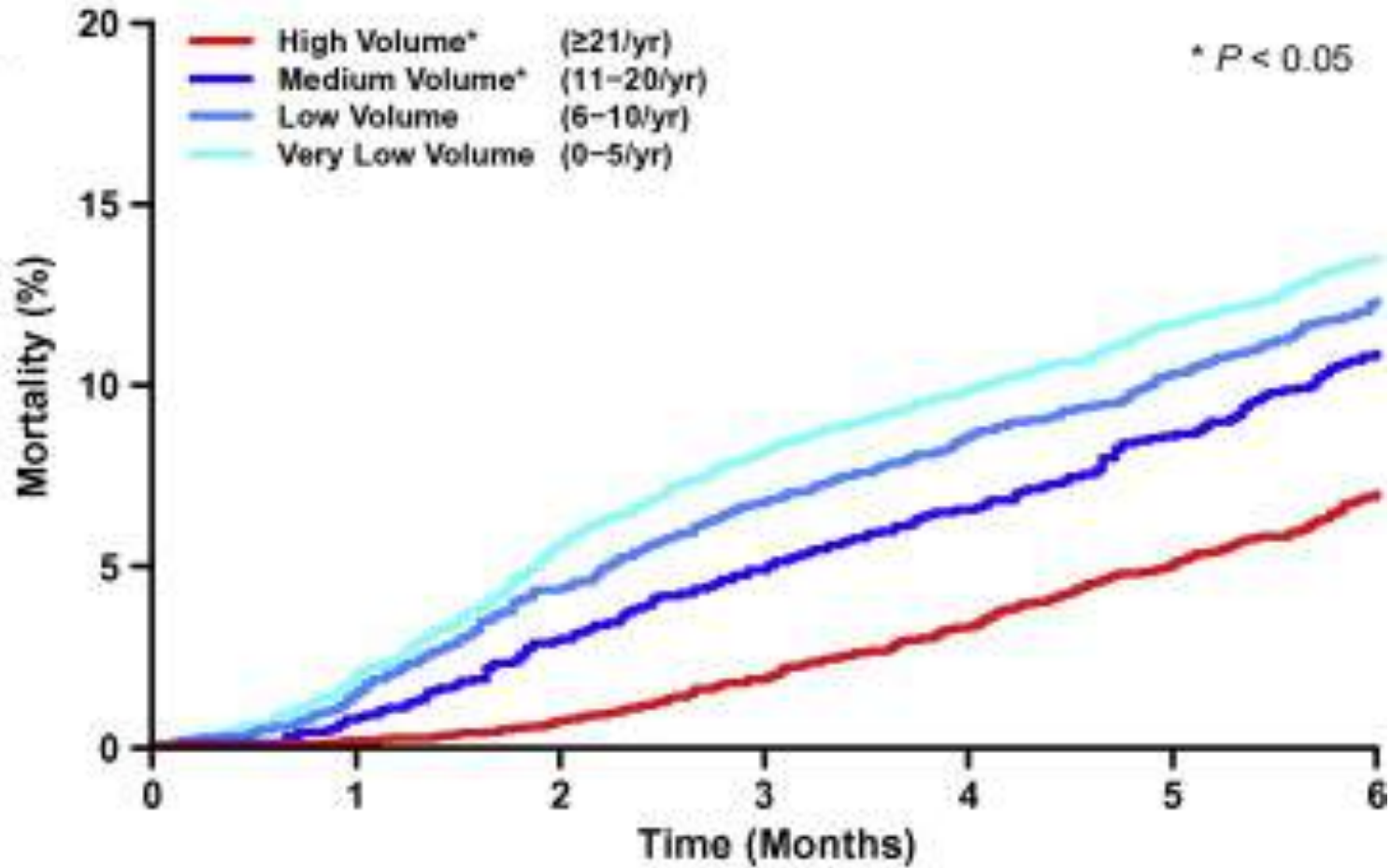
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Courtesy dr. S. Gisbertz, upper GI surgeon

# Need for centralization of care



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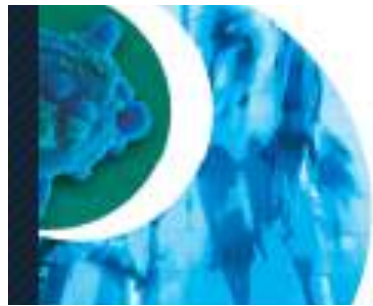




# Need for centralization of care – also in the palliative setting!



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# EJC

EUROPEAN JOURNAL OF CANCER

## Volume-outcome relation in palliative systemic treatment of metastatic oesophagogastric cancer

**Haj Mohammad N, Bernards N, van Putten M, Lemmens VEPP, van Oijen MGH, van Laarhoven HWM.**



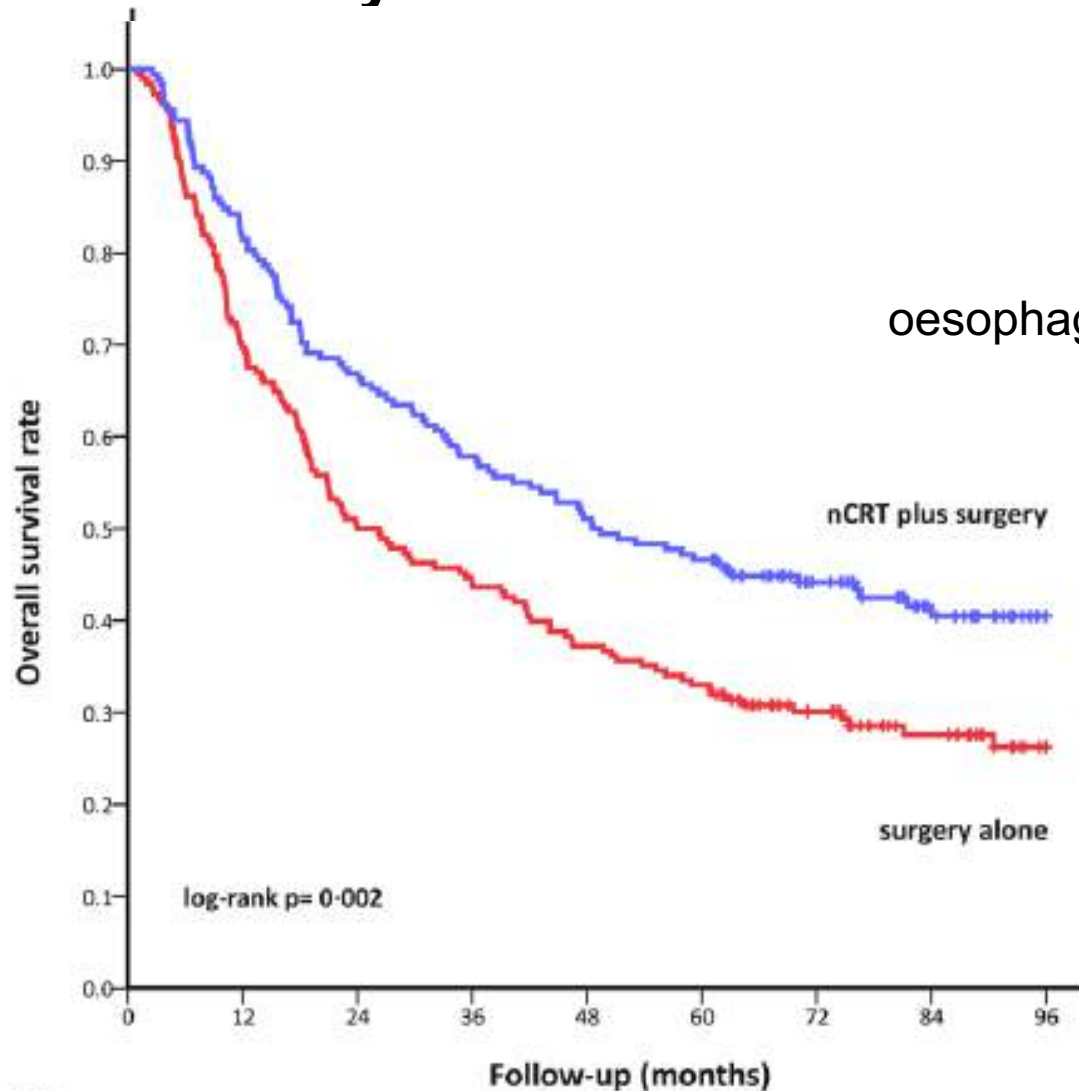
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# Needed: multimodality treatment!



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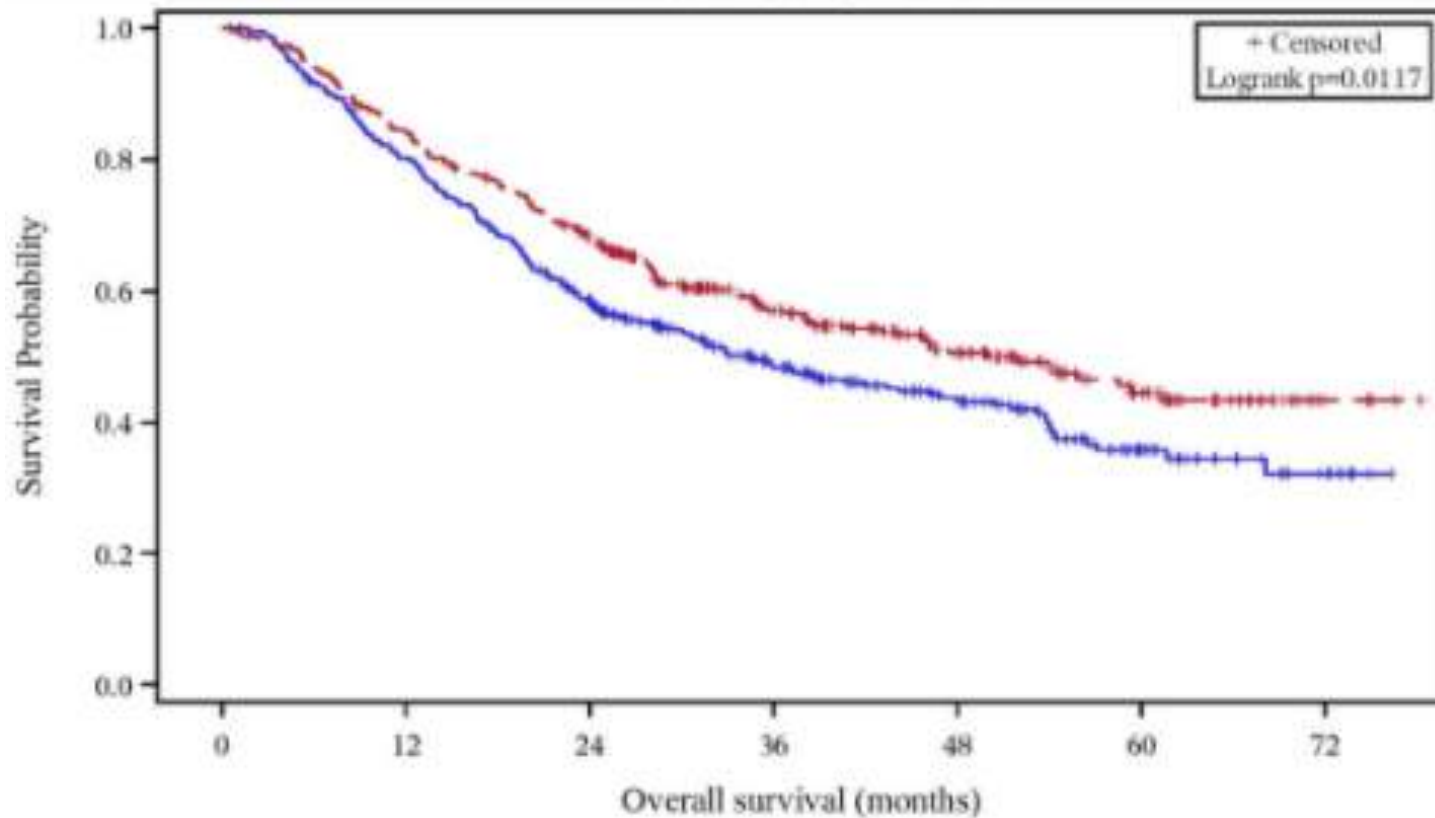
Patients at risk		Follow-up (months)								
	0	12	24	36	48	60	72	84	96	
nCRT plus surgery	178	145	119	103	91	83	59	40	22	
Surgery alone	188	131	94	83	70	62	42	28	14	
Total	366	276	213	186	161	145	101	68	36	

# Needed: multimodality treatment!



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gastric cancer



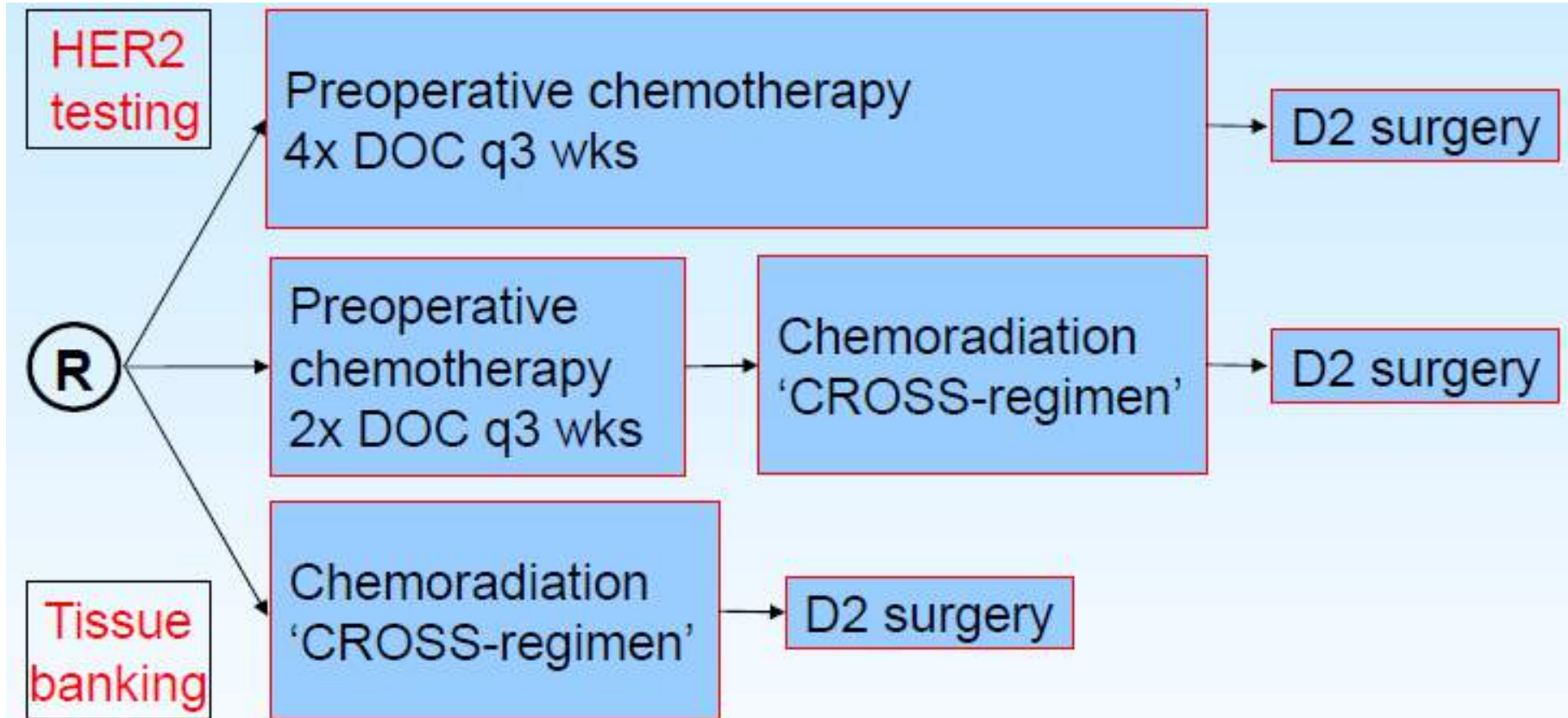
Arm (as randomized) — ECF/ECX — FLOT

ECF/ECX	368	297	202	126	83	33	6
FLOT	338	297	211	140	87	29	5

# Needed: research!



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# Needed: research!



**P**DL-1 targeting in **r**esectable oesophageal cancer: a phase  
**I**B and **f**easibility study of Atezolizumab and **c**hemoradiation: A  
 single arm feasibility study

Wk 1 Day 1	Wk 2 Day 8	Wk 3 Day 15	Wk 4 Day 22	Wk 5 Day 29	Wk 6 Day 36	Wk 7 Day 43	Wk 8 Day 50	Wk 9 Day 57	Wk 10 Day 64	Wk 11 Day 71	Wk 12 Day 78	Wk 13 Day 85	Wk 14 Day
T C RT A	T C RT	T C RT	T C RT A	T C RT		A			A			A	S



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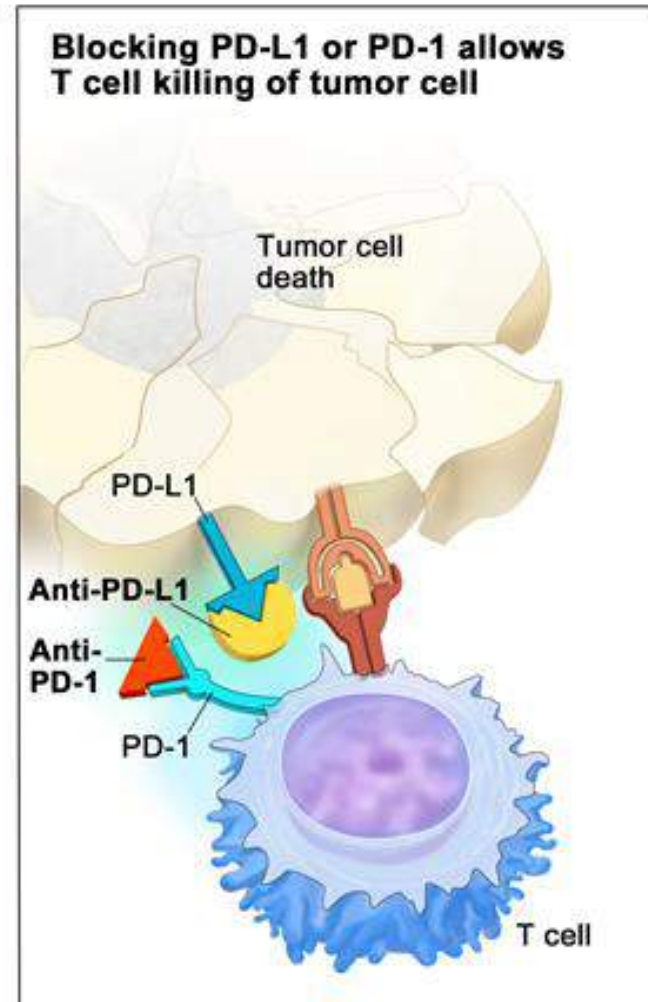
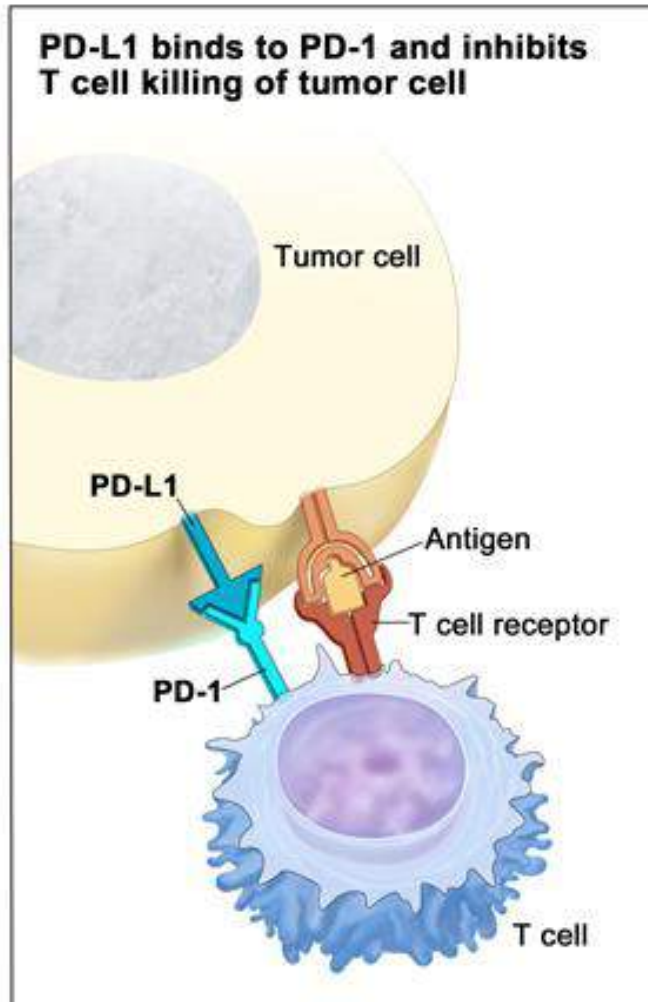
UMC Utrecht

PERFECT study design

# Immunotherapy



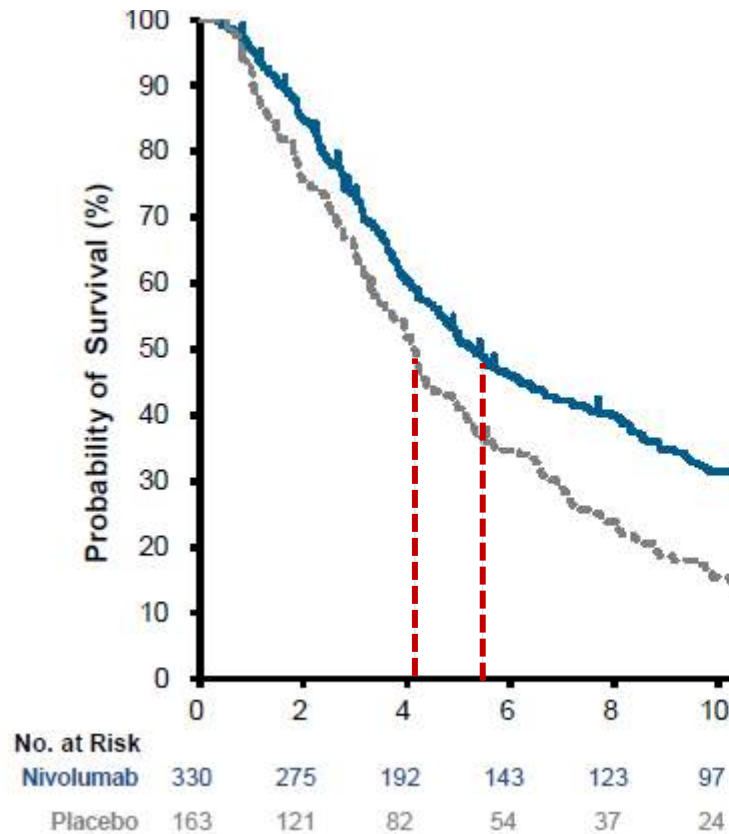
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# Immunotherapy works (a bit)



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Median follow-up<sup>a</sup>: 15.7 months  
(range, 12.1–27.2)

Median OS, months (95% CI)

Nivolumab (N = 330) 5.3 (4.6–6.4)

Placebo (N = 163) 4.1 (3.4–4.9)

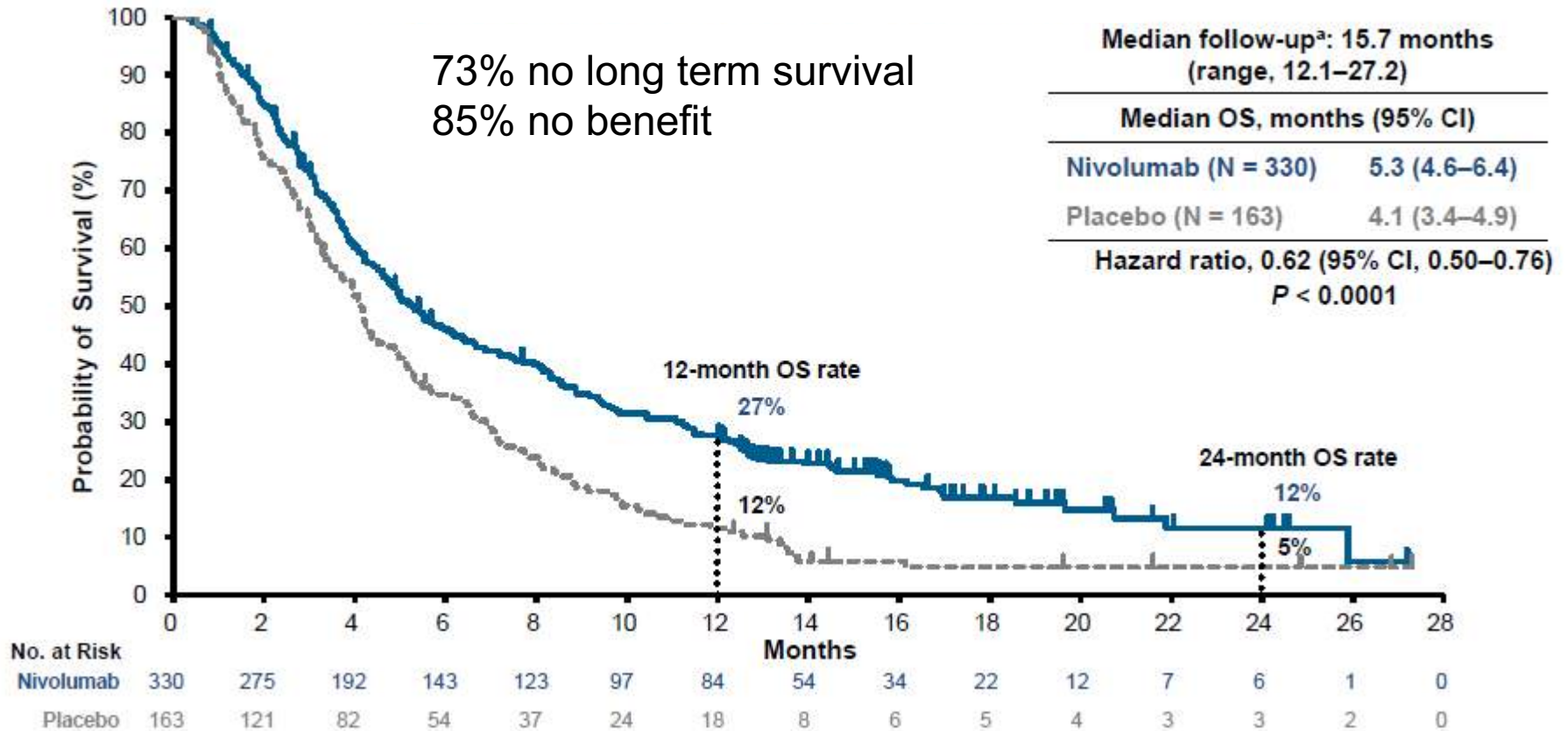
Hazard ratio, 0.62 (95% CI, 0.50–0.76)  
 $P < 0.0001$



# Immunotherapy works (a bit)

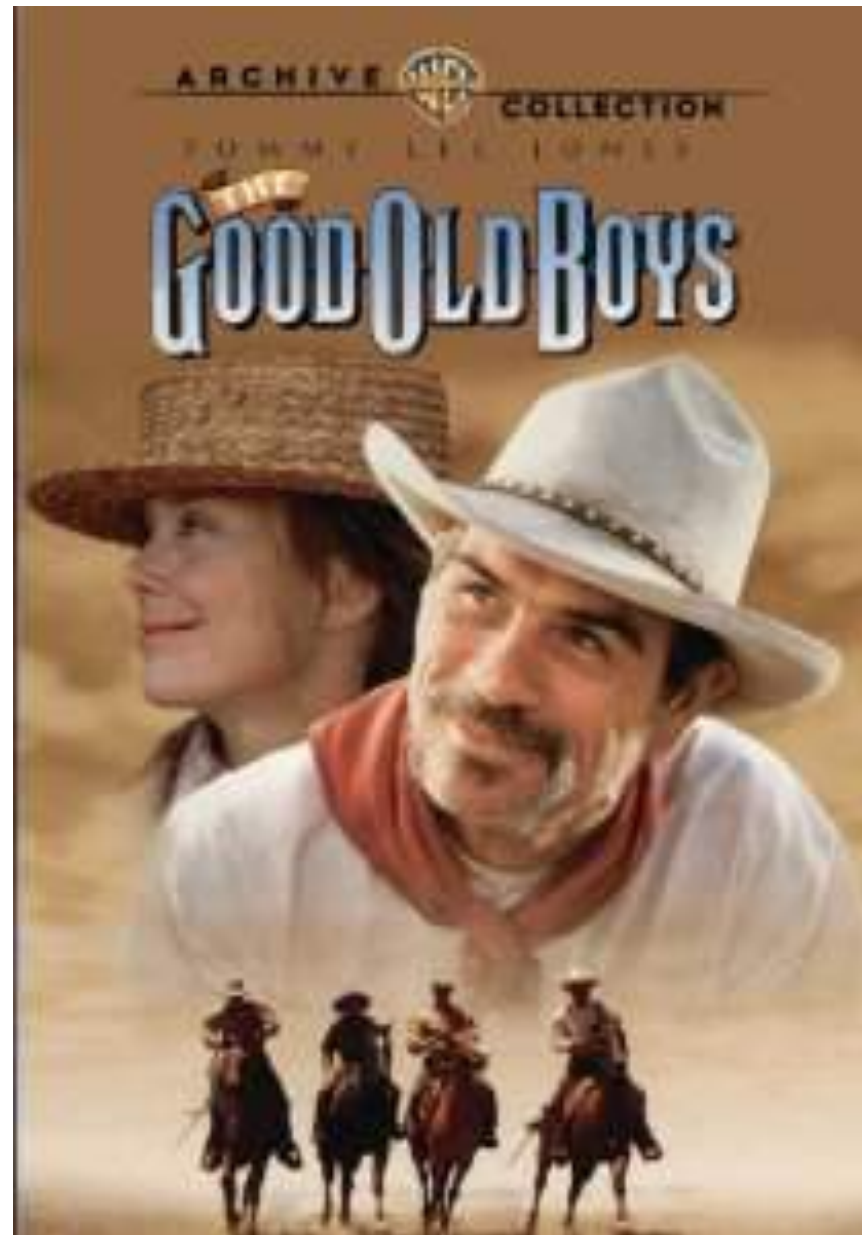


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Targeted therapy

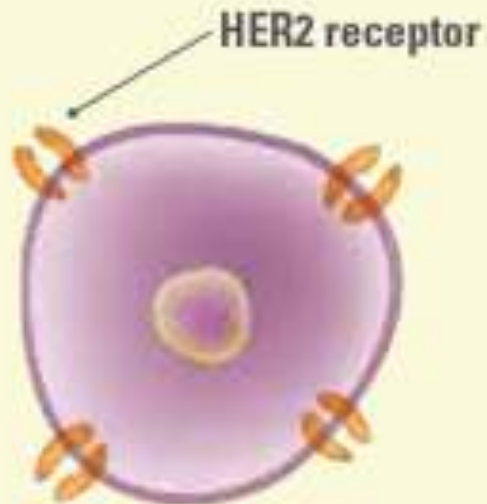
Chemotherapy

# Targeted therapy



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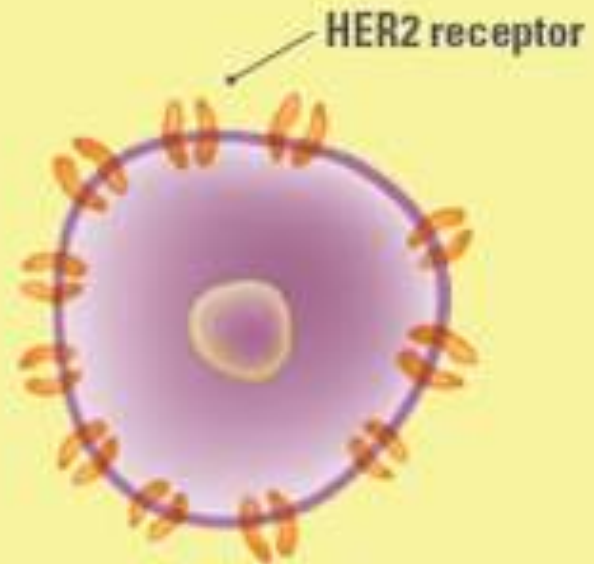
## NORMAL CELL



Normal amount of HER2

- Cells grow and divide normally

## HER2-POSITIVE CANCER CELL



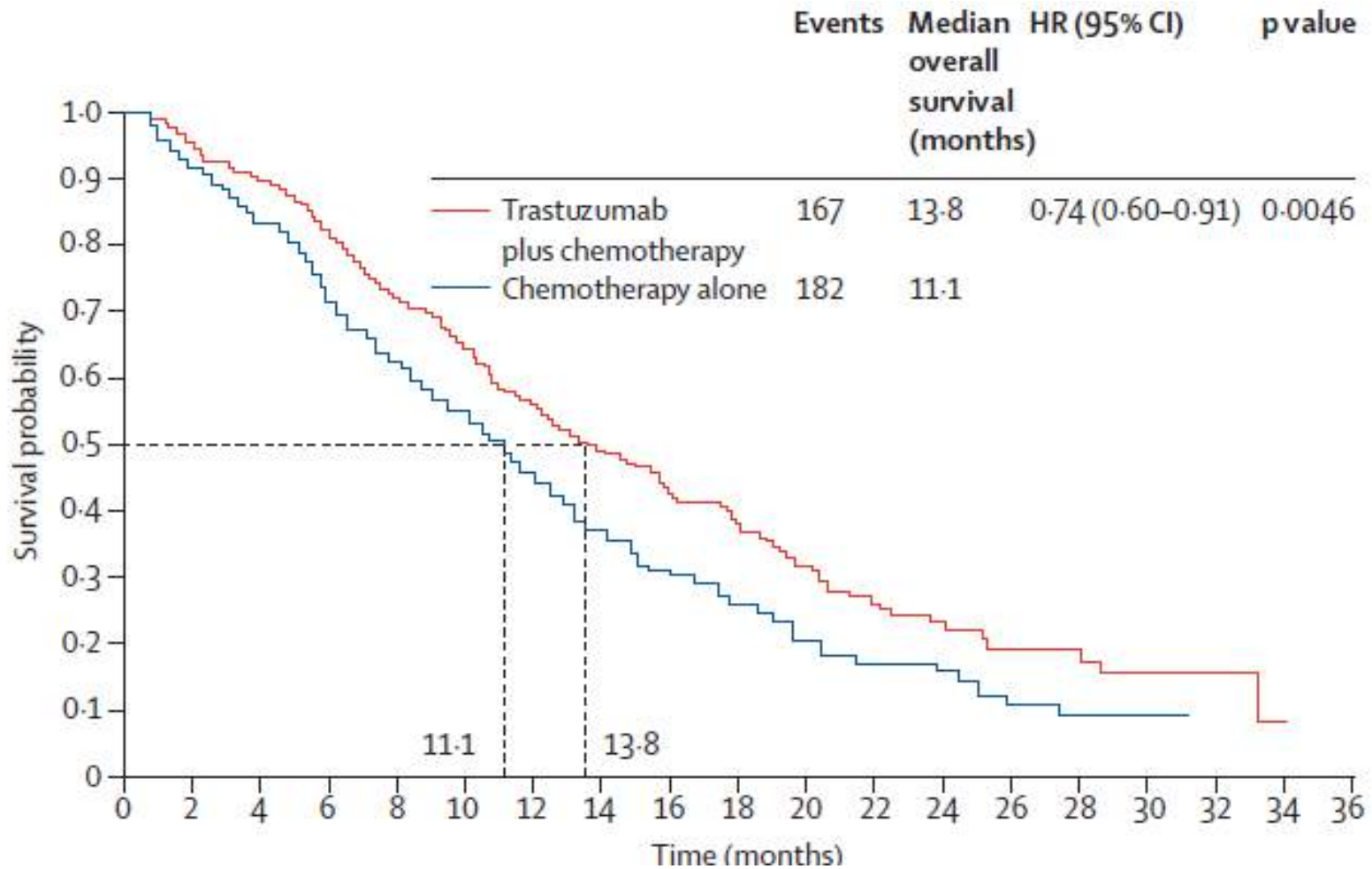
Too much HER2

- Cells grow and divide faster

# HER2 targeted therapy



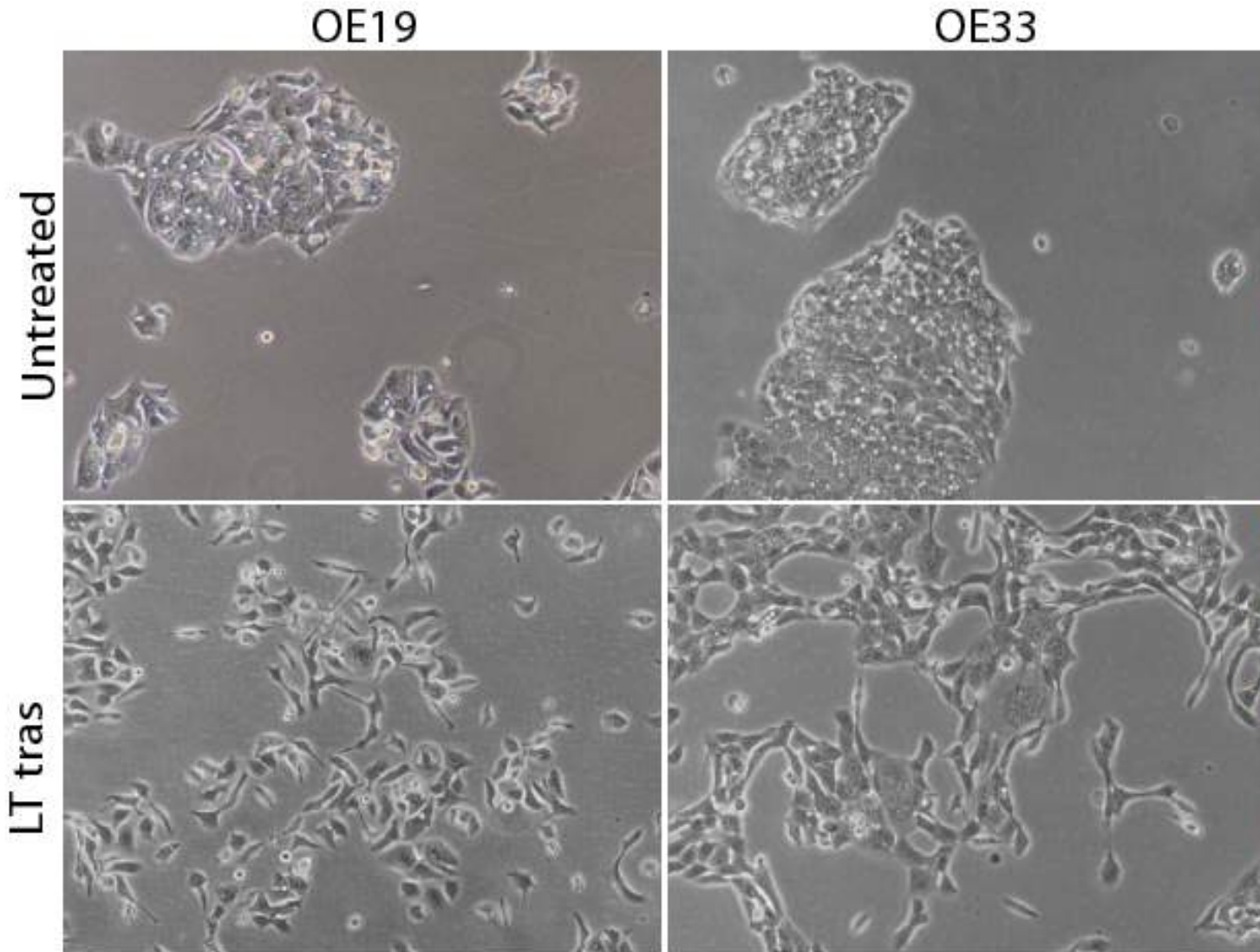
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# Resistance develops ...



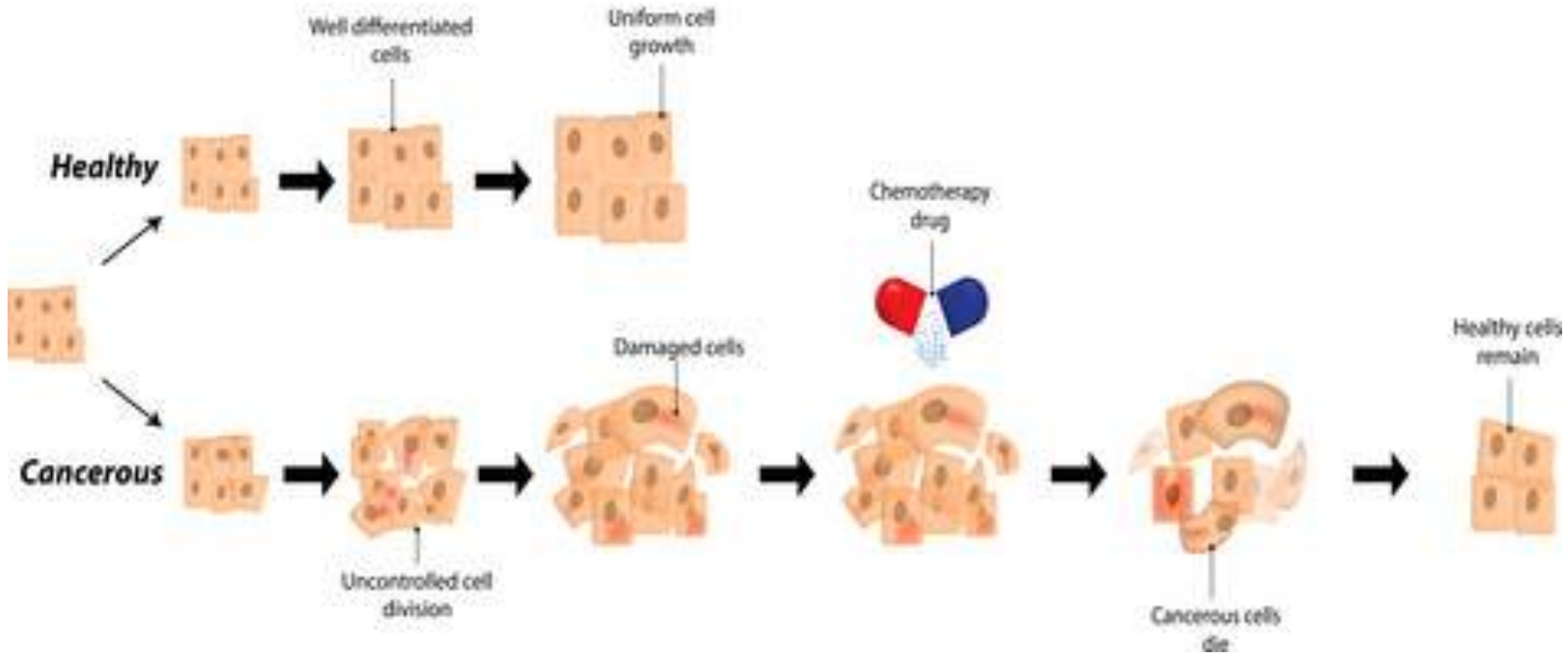
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# Chemotherapy



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# The Efficacy and Safety of First-line Chemotherapy in Advanced Esophagogastric Cancer: A Network Meta-analysis FREE

Emil ter Veer, Nadia Haj Mohammad, Gert van Valkenhoef, Lok Lam Ngai, Rosa M. A. Mali, Maarten C. Andereg, Martijn G. H. van Oijen, Hanneke W. M. van Laarhoven

*JNCI: Journal of the National Cancer Institute*, Volume 108, Issue 10, 1 October 2016, djw166, <https://doi.org/10.1093/jnci/djw166>

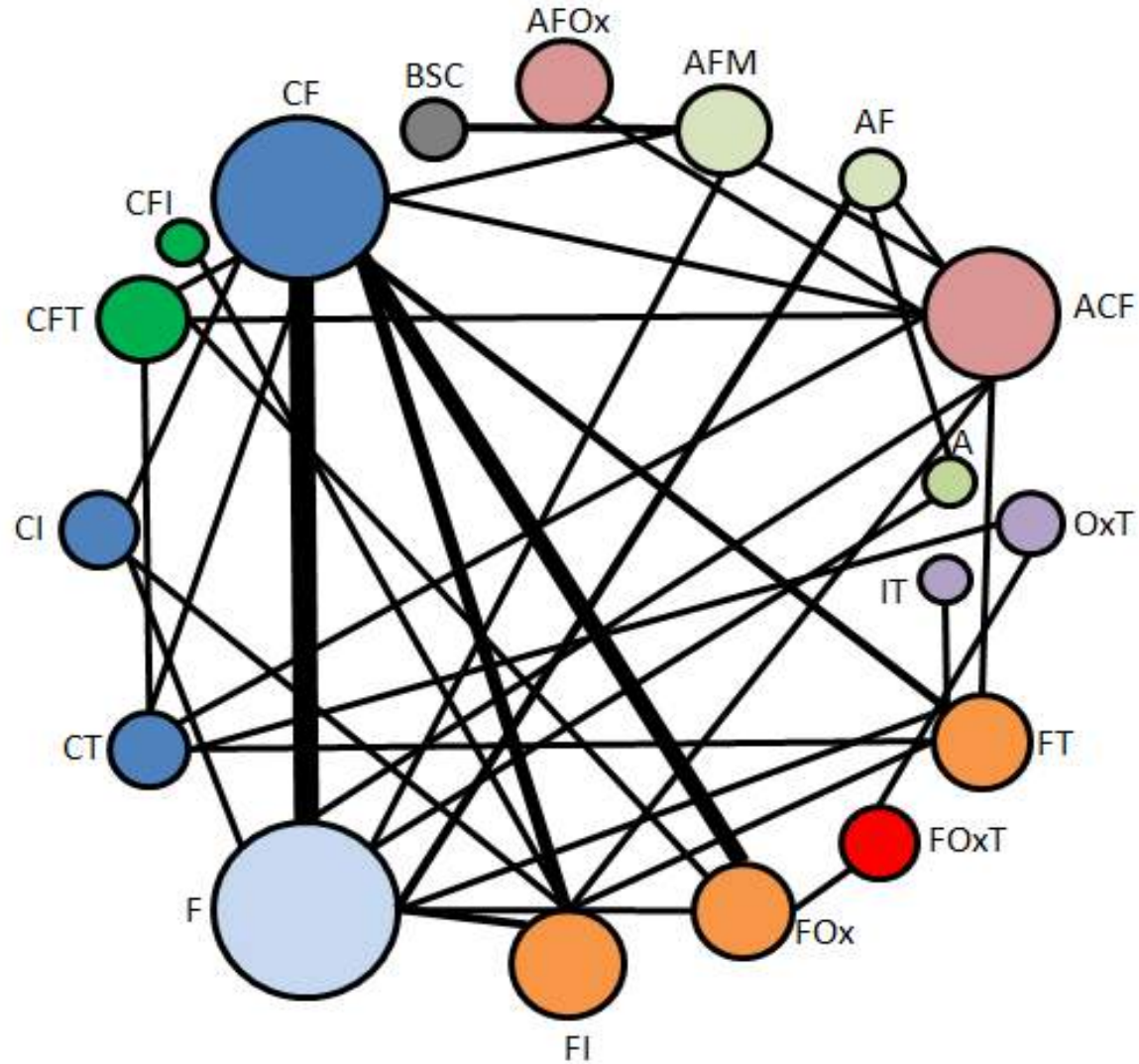
**Published:** 30 August 2016    **Article history** ▼



# Network meta-analysis



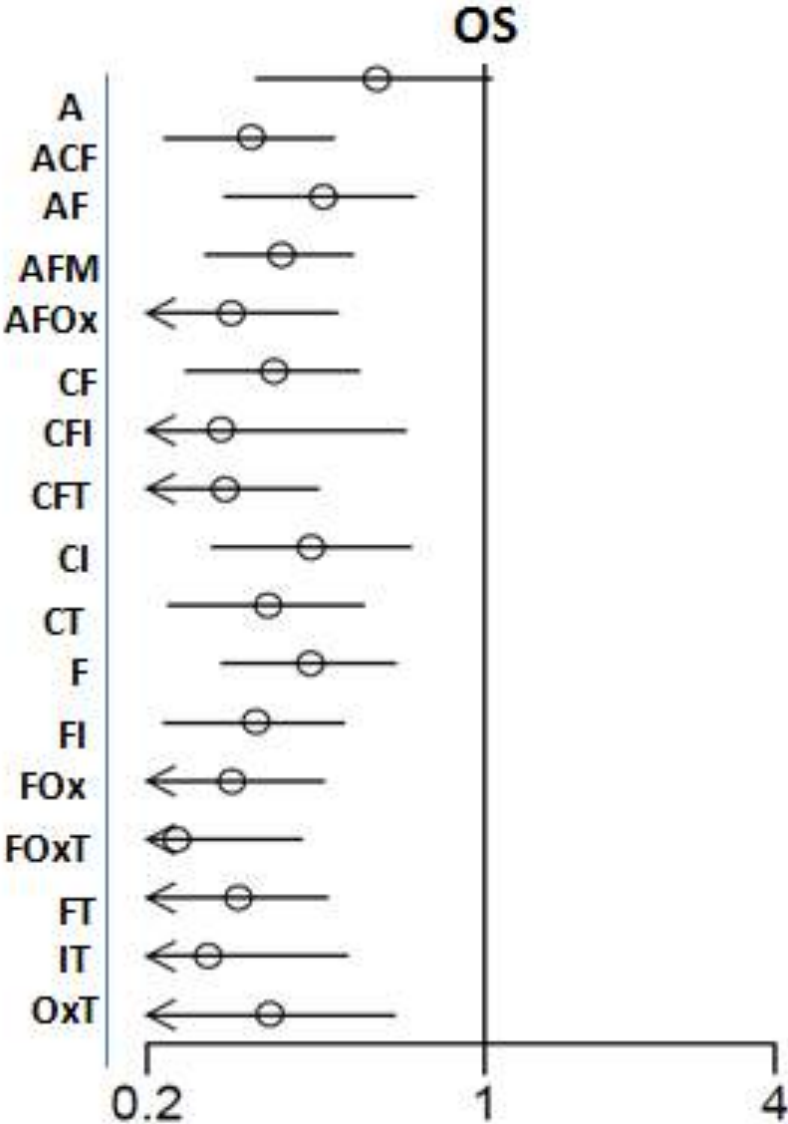
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# All regimens compared to supportive care



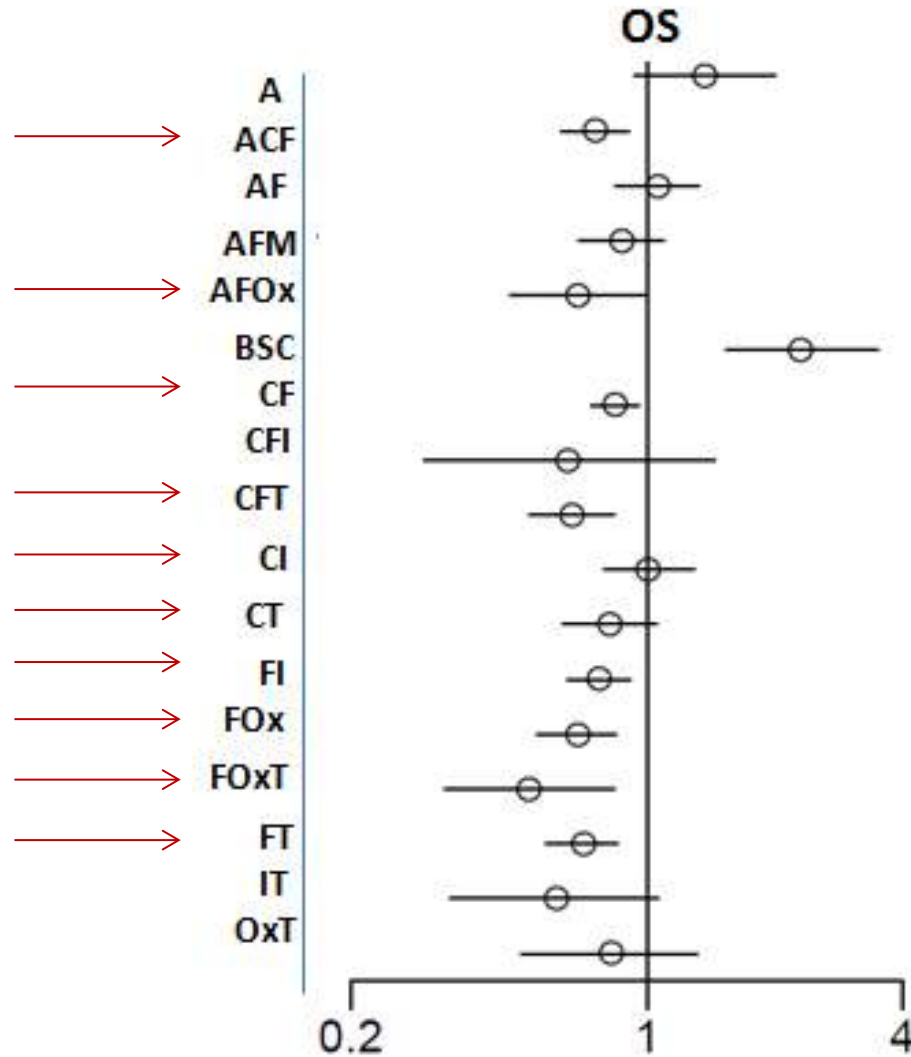
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# All regimens compared to monotherapy



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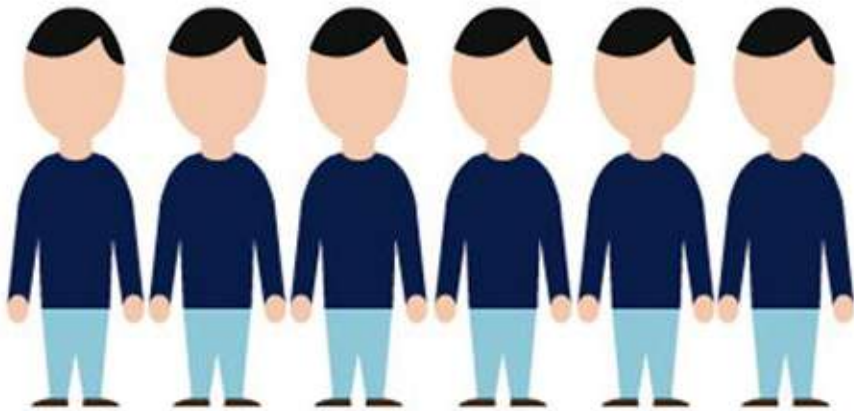
# No benefit of anthracycline triplets over F-doublets



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<b>FI</b>	1.18 (0.78–1.78)	–	1.01 (0.83–1.23)	–
	1.05 (0.81–1.40)	1.08 (0.81–1.48)	1.08 (0.85–1.40)	1.17 (0.76–1.86)
1.01 (0.66–1.56)	<b>FT</b>	–	1.09 (0.72–1.64)	–
0.92 (0.73–1.14)		1.03 (0.75–1.40)	1.03 (0.79–1.34)	1.13 (0.70–1.76)
–	–	<b>FOx</b>	–	–
0.89 (0.69–1.13)	0.97 (0.75–1.26)		1.00 (0.74–1.36)	1.09 (0.67–1.75)
1.01 (0.83–1.24)	0.81 (0.52–1.26)	–	<b>ACF</b>	1.09 (0.95–1.24)
0.98 (0.79–1.20)	1.06 (0.85–1.35)	1.10 (0.86–1.42)		1.09 (0.75–1.58)
–	–	–	0.91 (0.79–1.04)	<b>AFOx</b>
0.89 (0.61–1.30)	0.97 (0.66–1.45)	1.00 (0.67–1.51)	0.91 (0.66–1.25)	

Controlled setting



Real world



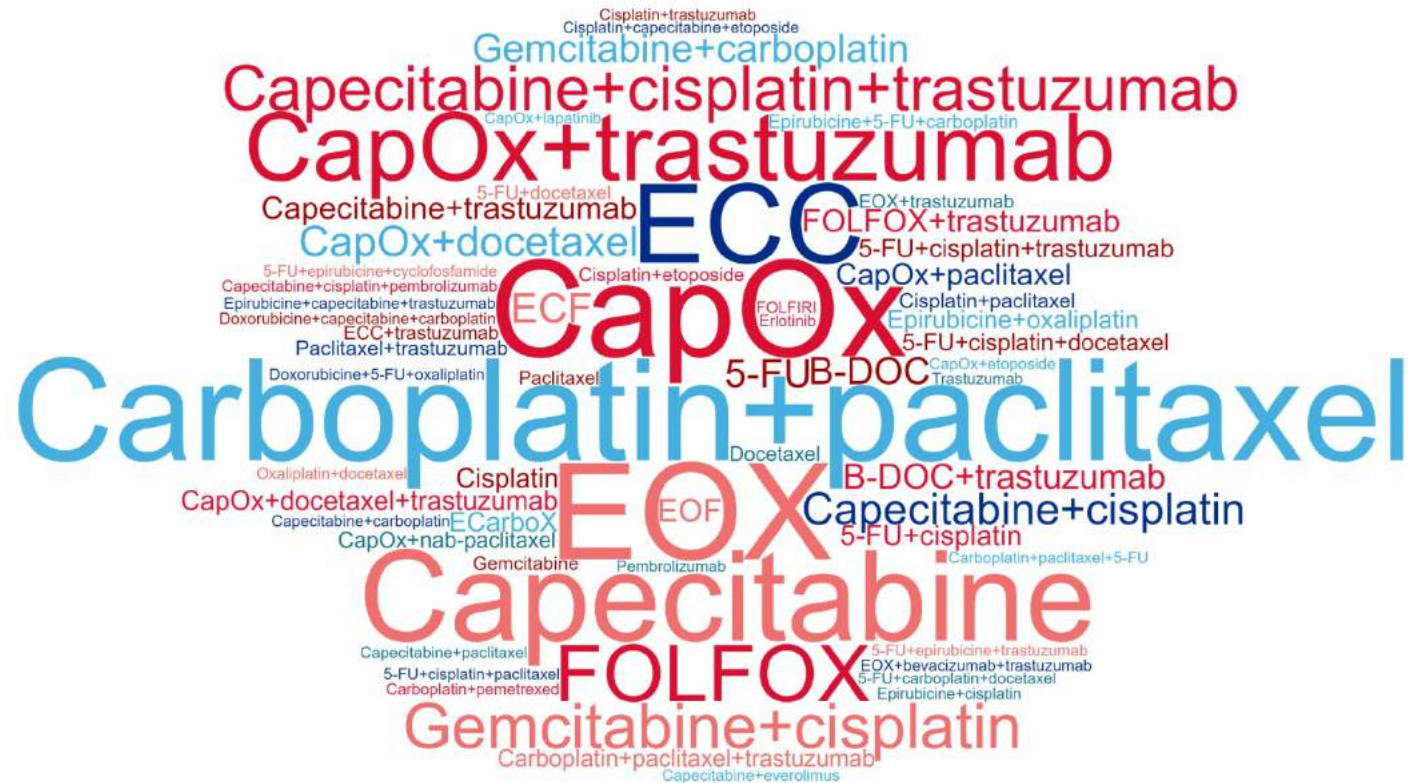


POCOP

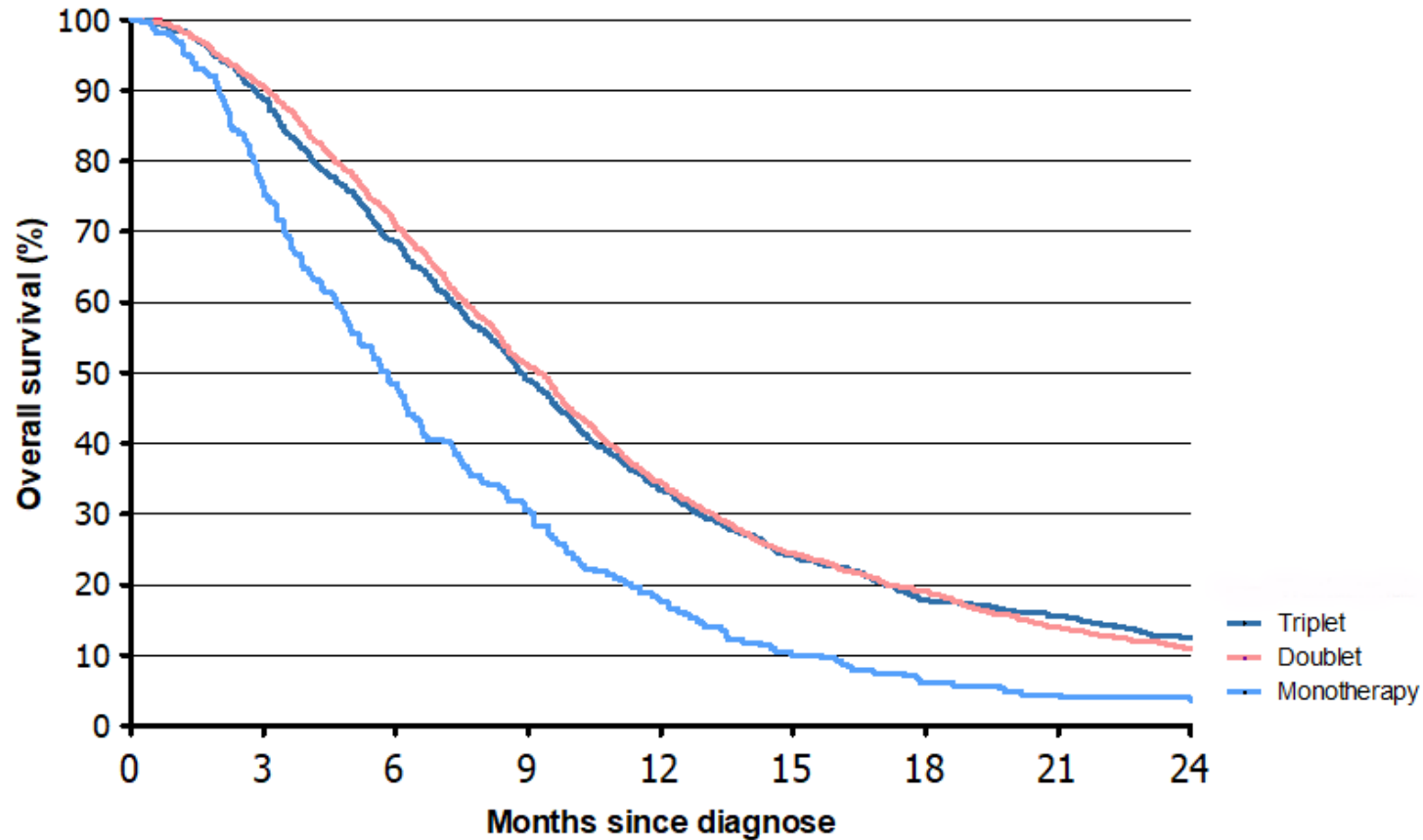


**P**rospective **O**bservational **C**ohort **S**tudy of  
**O**esophageal-gastric cancer **P**atients

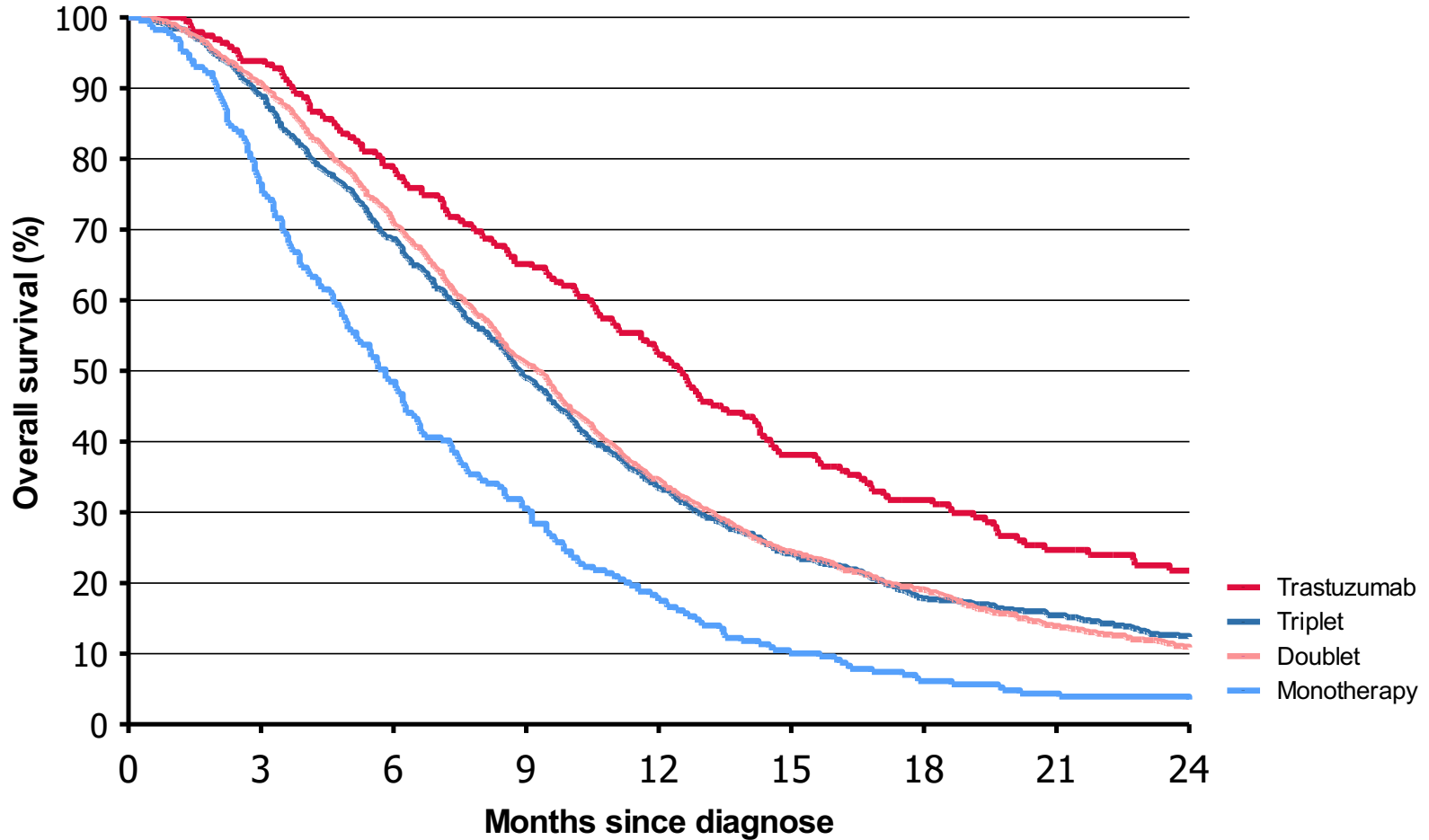
P O C O P



# Real world data from the Dutch Cancer Registry



# Real world data from the Dutch Cancer Registry



# Time for prognostic/predictive models?

## Adjuvant! for Breast Cancer (Version 8.0)

### Patient Information

Age:

Comorbidity:  ▼

ER Status:  ▼

Tumor Grade:  ▼

Tumor Size:  ▼

Positive Nodes:  ▼

Calculate For:  ▼

10 Year Risk:

### Adjuvant Therapy Effectiveness

Horm:  ▼

Chemo:  ▼

### No additional therapy:



■ 52.6 alive in 10 years.

■ 44.2 die of cancer.

■ 3.2 die of other causes.

### With hormonal therapy: Benefit = 11.3 alive.



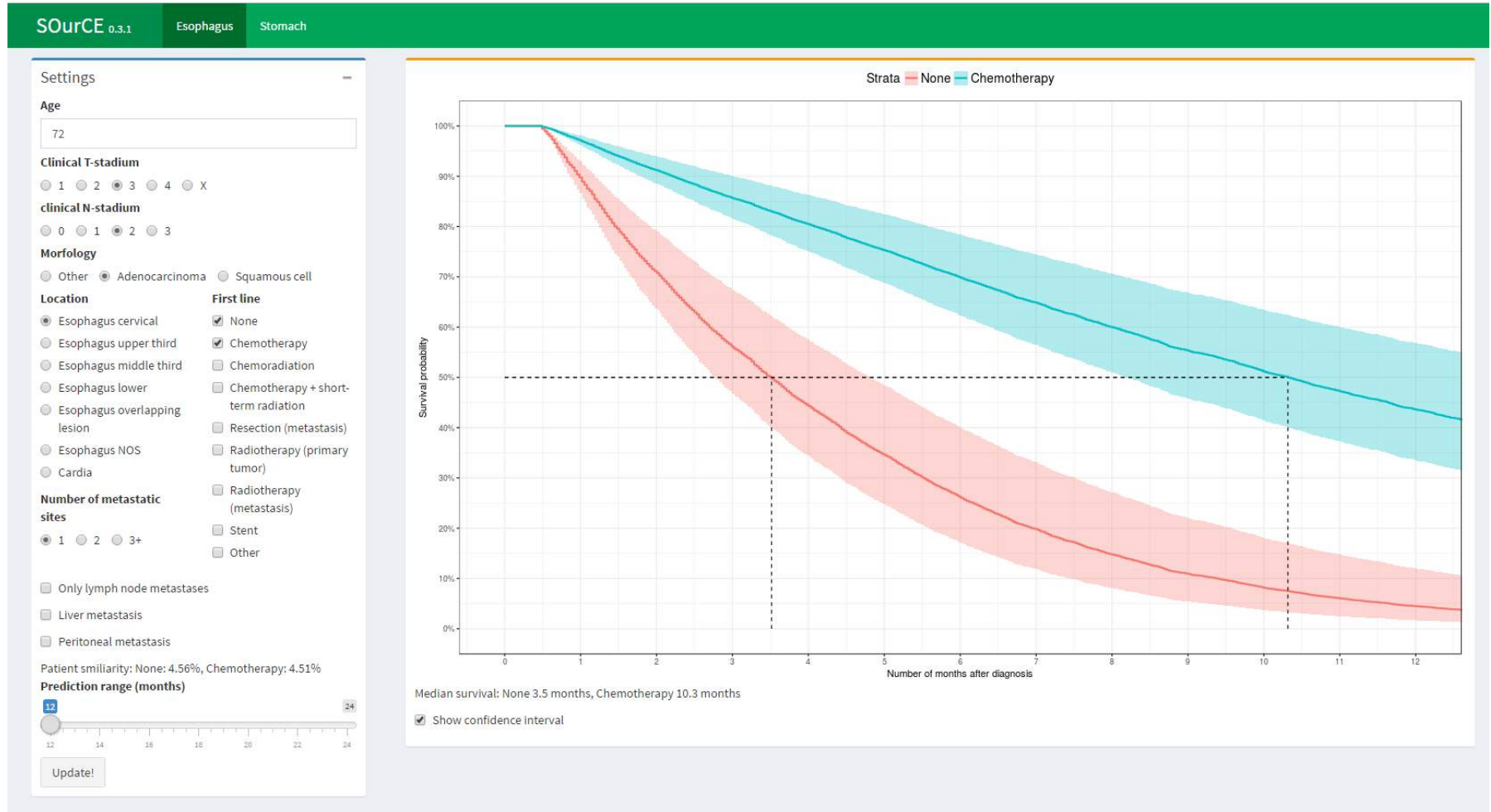
### With chemotherapy: Benefit = 16.6 alive.



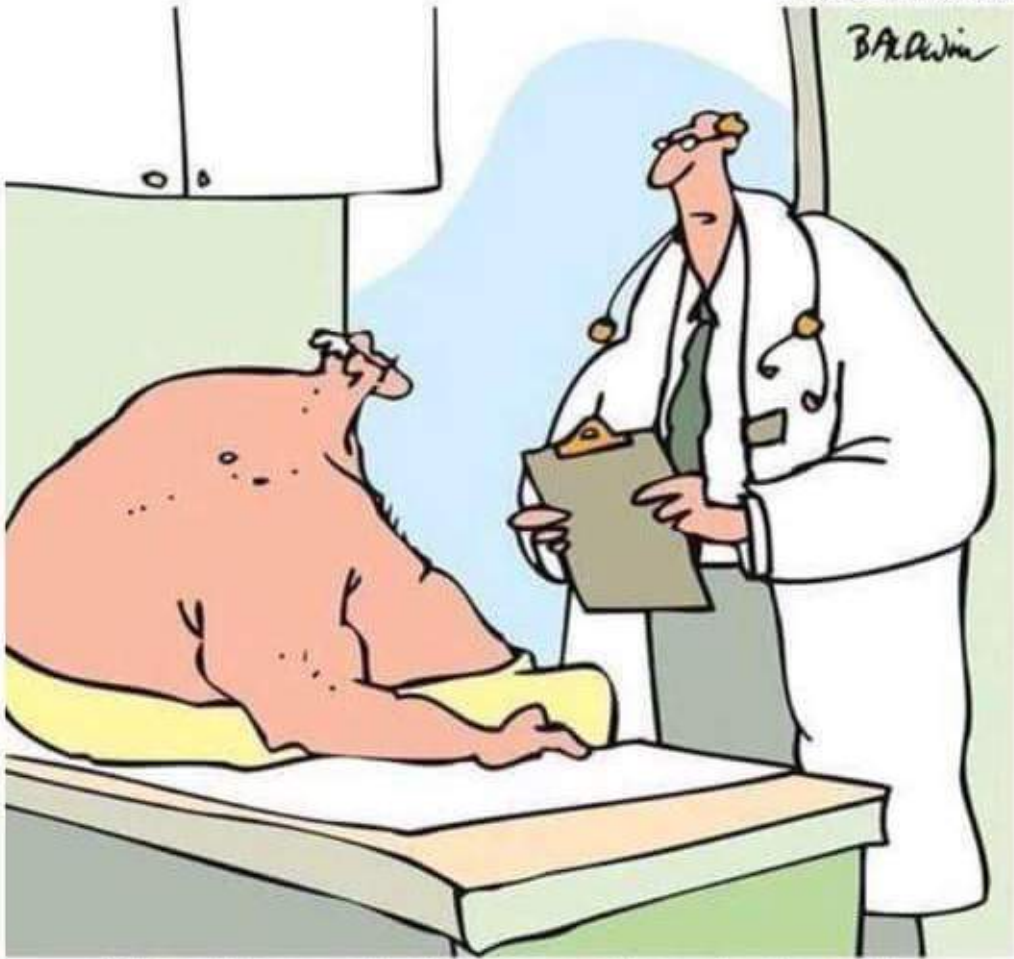
### With combined therapy: Benefit = 24.4 alive.



# Webinterface to allow for shared decision making: SOURCE



*Baldwin*



“You’ve got six months, but with aggressive treatment we can help make that seem much longer.”

# Improved efficacy is correlated with improved QoL

Study	Treatment Groups	Efficacy Versus QoL
Glimelius 1997 <sup>13</sup>	ELF + BSC BSC	<u>Improved efficacy and improved QoL for ELF</u>
Webb 1997 <sup>B</sup>	FAMTX ECF	<u>Improved efficacy and improved QoL for ECF</u>
Tebbutt 2002 <sup>10</sup>	PVI 5-FU PVI 5-FU + MMC	<u>Equal efficacy and equal QoL</u>
Ross 2002 <sup>9</sup>	ECF MCF	<u>Equal efficacy but worse QoL for MCF</u>
Ajani 2007 <sup>11</sup>	CF DCF	<u>Improved efficacy and improved QoL for DCF</u>
Cunningham 2008 <sup>19</sup>	ECF EOF ECX EOX	<u>Equal efficacy and equal QoL for the 3 comparator groups vs ECF</u>
Dank 2008 <sup>12</sup>	IF CF	<u>Equal efficacy and equal QoL</u>



POCOP



**P**rospective **O**bservational **C**ohort **S**tudy of  
**O**esophageal-gastric cancer **P**atients

P O C O P

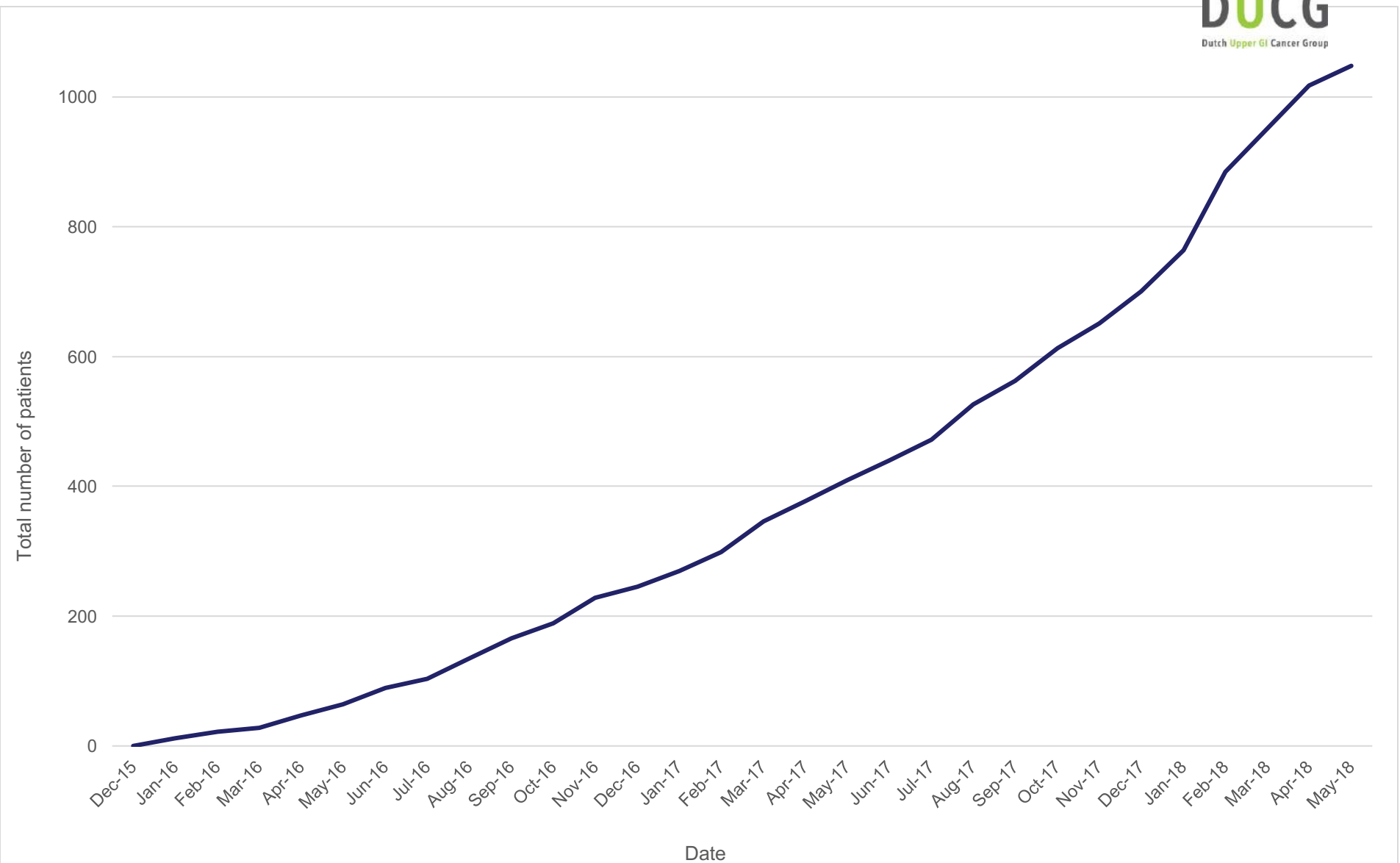
# PROMs



**DUCG**  
Dutch Upper GI Cancer Group



# PROMs inclusion

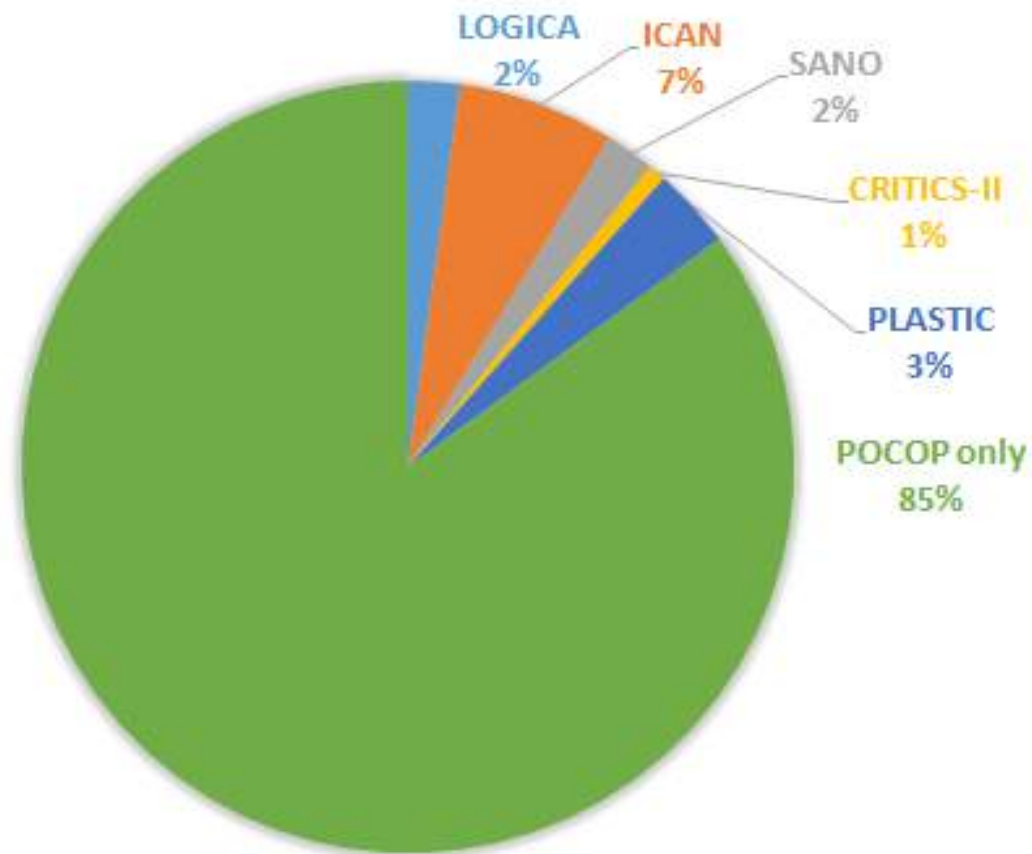




# Clinical trials and prospective studies including POCOP-PROMs



- ICAN
- LOGICA
- CRITICS-II
- SANO
  
- PLASTIC
- eQuipe
- Centralisation study



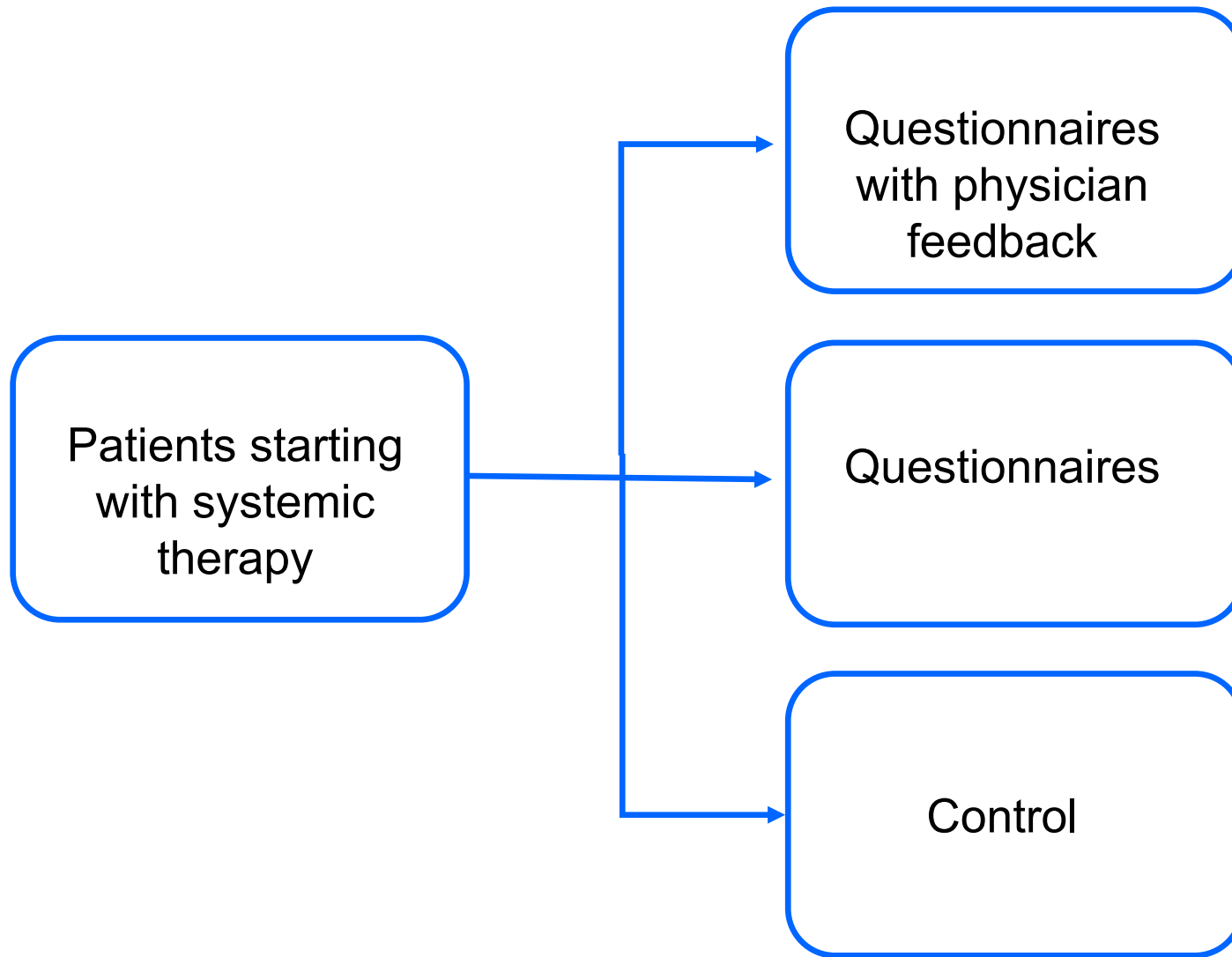
# Effect of systematically collecting PROs



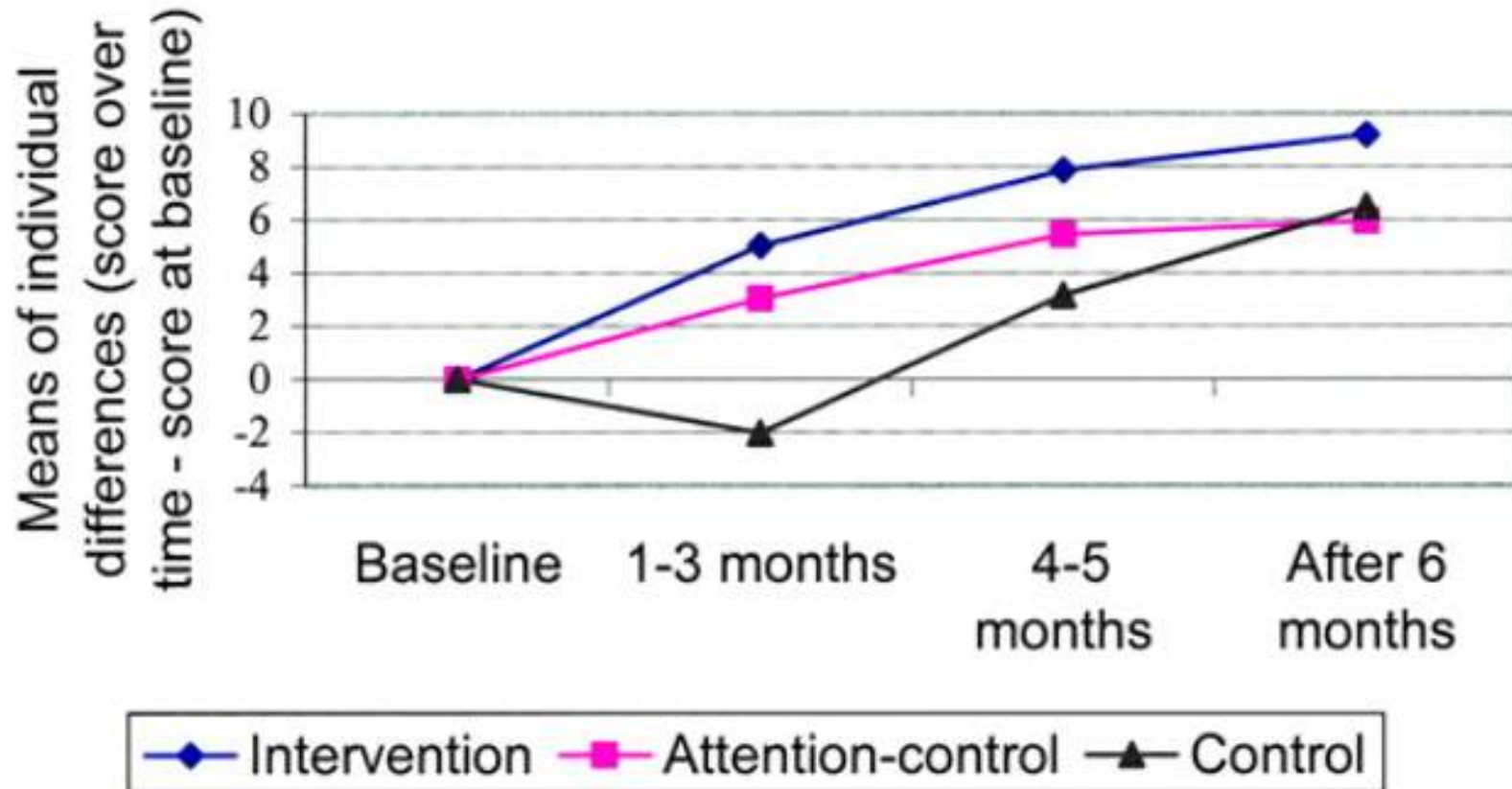
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# Systematically collecting PROs improves QOL







Nederlandse  
Federatie van  
Kankerpatiënten  
organisaties

# Conclusion



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To improve survival and quality of life of esophagogastric cancer, we need:

1. A multidisciplinary approach, including the patient perspective
2. Prospective studies
3. Real world data

# Acknowledgments



Jessy Joy  
van Kleef



Mariska  
Prins



Ans van  
Driel



Héctor  
van den  
Boorn



Loïs van  
de Water



Nederlandse  
Federatie van  
Kankerpatiënten  
organisaties



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MERCK



Bristol-Myers Squibb



SERVIER



DUCG

Dutch Upper GI Cancer Group

