Evidence and practice changing treatments in GI tumors

Part 1 : Upper GI

Luca Boldrini MD PhD

Fondazione Policlinico Universitario «A. Gemelli» IRCCS, Roma

Conflicts of interest

- Speaker honorarium and travel reimbursements from View Ray Inc.
- Member of the IBA Victoria Advisory Committee
- Scientific consultant for Varian Medical Systems
- Scientific consultant for KBMS.com & KBO Labs
- Scientific consultant for Medipass srl
- Scientific consultant for Roche
- Scientific consultant for Radius srl
- Sponsored researcher for Nanovi
- Sponsored researcher for Sophia genetics
- Sponsored researcher for View Ray Inc.
- Inventor patent #202020000005950

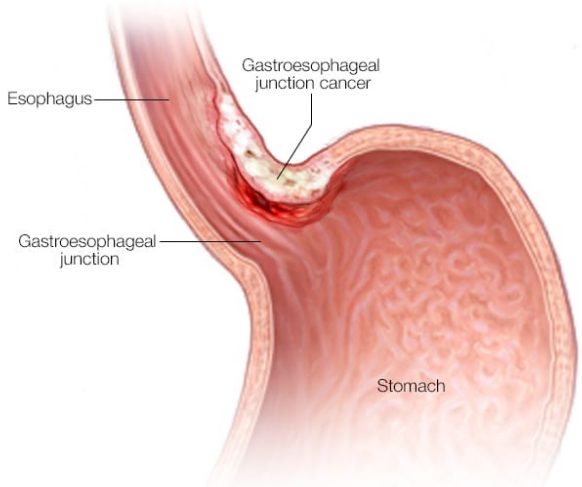
Esophagus, gastric and GOJ | 2023 highlights

1. What are the SOCs for locally advanced GOJ: perioperative CT vs NAD CRT?

- **FLOT** regimen (perioperative 4 cycles FLOT NAD and 4 cycles AD) for both gastric and GOJ cancers
- **CROSS** regimen (concomitant NAD RT 41.4 Gy with paclitaxel/carboplatin) for GOJ
- **MAGIC** regimen (3 cycles NAD [m]MAGIC and 3 cycles AD) for both gastric and GOJ cancers

2. Which is more effective ?
We do not know. Waiting for ESOPEC trial results in 2024.

3. Is there any role for immunocheck point inhibitors (IO)?
No (or not yet)



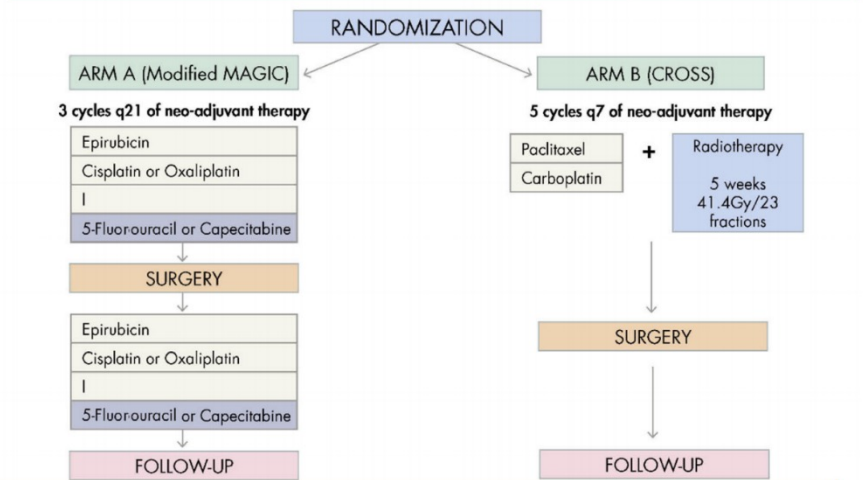
Esophagus, gastric and GOJ | 2023 highlights: Neo-AEGIS

Trimodality therapy versus perioperative chemotherapy in the management of locally advanced adenocarcinoma of the oesophagus and oesophagogastric junction (Neo-AEGIS): an open-label, randomised, phase 3 trial

*John V Reynolds, Shaun R Preston, Brian O'Neill, Maeve A Lowery, Lene Baeksgaard, Thomas Crosby, Moya Cunningham, Sinead Cuffe, Gareth O Griffiths, Imelda Parker, Signe Lenora Risumlund, Rajarshi Roy, Stephen Falk, George B Hanna, Frederick R Bartlett, Alberto Alvarez-Iglesias, Michael P Achiam, Magnus Nilsson, Guillaume Piessen, Narayanasamy Ravi, Dermot O'Toole, Ciaran Johnston, Raymond S McDermott, Richard C Turkington, Shajahan Wahed, Sharmila Sothi, Hugo Ford, Martin S Wadley, Derek Power, on behalf of the Neo-AEGIS Investigators and Trial Group**

Primary endpoints OS

Secondary endpoints cCR, pCR, TRG, N+, pTNM
DFS, toxicity, complic., QoL



Esophagus, gastric and GOJ | 2023 highlights: Neo-AEGIS

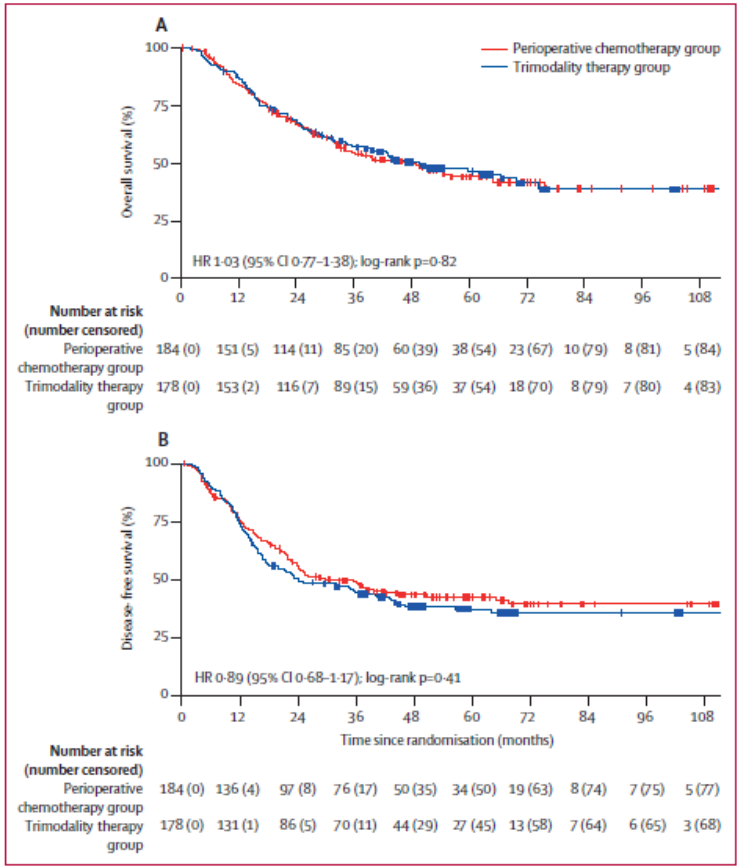


TABLE 1: Oncologic Outcomes for Two Approaches to Treating Locally Advanced Esophageal or Gastroesophageal Junction Cancer

Endpoint	Neo-AEGIS Regimen (Perioperative Chemotherapy/Surgery)	CROSS Regimen (Chemoradiation/Surgery)	*P* Value
3-Year overall survival rate	55%	57%	HR = 1.03 (95% CI = 0.77–1.38)
Nodal downstaging to ypNO rate	44%	60%	.004
R0 resection	82%	95%	< .001
Pathologic complete response rate	5%	17%	.001
Major pathologic response rate	12%	42%	< .001

CI = confidence interval; HR = hazard ratio.

LETTERS TO THE EDITOR

Neoadjuvant radiochemotherapy and perioperative chemotherapy do not represent a standard at the same priority level for esophageal adenocarcinomas (with regard to 'Oesophageal cancer: ESMO Clinical Practice Guideline for diagnosis, treatment and follow-up')

"We believe that the ESMO Guidelines should consider addressing a preference for pRTCT over periCT, similar to the NCCN Guidelines"

Reynolds JV et al. *Lancet Gastroenterol Hepatol.* (2023) | Cellini F et al. *Annal Oncol.* (2023)

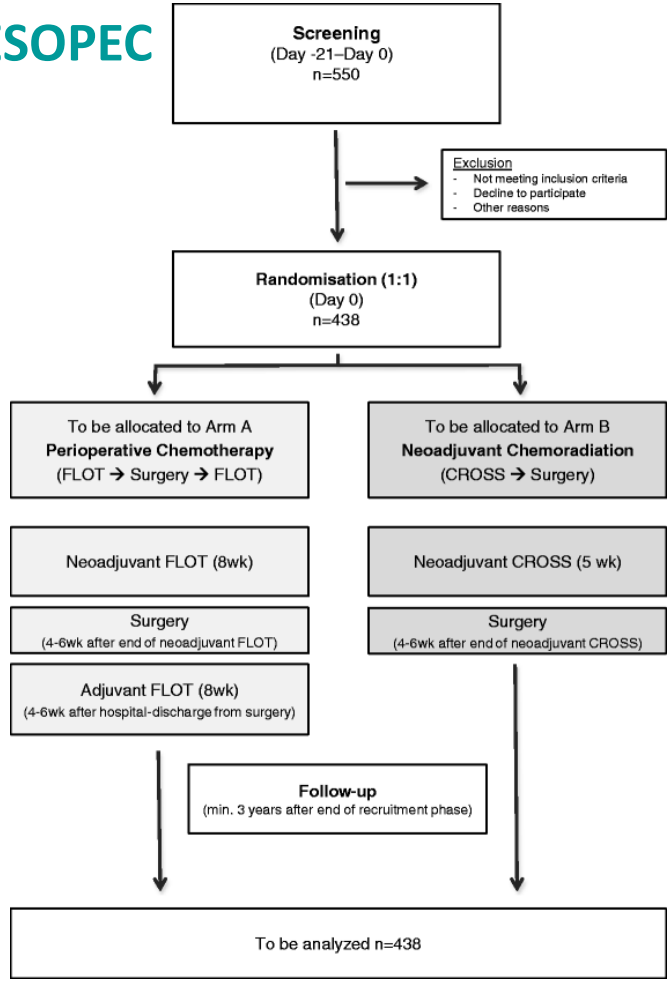
Esophagus, gastric and GOJ | 2023 highlights: ESOPEC

ESOPEC: prospective randomized controlled multicenter phase III trial comparing perioperative chemotherapy (FLOT protocol) to neoadjuvant chemoradiation (CROSS protocol) in patients with adenocarcinoma of the esophagus (NCT02509286)

Jens Hoeppner [1], Florian Lordick [2], Thomas Brunner [3], Torben Glatz [4], Peter Bronsert [5], Nadine Röthling [6], Claudia Schmoor [6], Dietmar Lorenz [7], Christian Ell [8], Ulrich T Hopt [4], J Rüdiger Siewert [9]

Primary endpoint OS 36 m

Secondary endpoint PFS, RFS, site of failure, morbidity and mortality, hospitalization and QoL



Hoeppner J et al. *BMC Cancer* (2016)

Esophagus, gastric and GOJ | 2023 highlights

4) Are there any trials studying IO in locally advanced, resectable gastric or GOJ ?

Two *interim* results released in 2023

DANTE trial compared two arms

Arm A	4+4 FLOT with additional Atezolizumab at 840 mg, q3w, followed by Atezolizumab monotherapy for 8 cycles q3w
Arm B	4+4 perioperative FLOT chemotherapy

KEYNOTE 585 compared two arms

Arm A	neoadjuvant pembrolizumab 200 mg intravenously or placebo (saline) plus cisplatin-based doublet chemotherapy (main cohort) q3w for 3 cycles, followed by surgery, adjuvant pembrolizumab
Arm B	placebo plus chemotherapy for 3 cycles, then adjuvant pembrolizumab or placebo for 11 cycles

Esophagus, gastric and GOJ | 2023 highlights: DANTE trial

Journal of Clinical Oncology®
An American Society of Clinical Oncology Journal

ORIGINAL REPORTS | November 14, 2023

Perioperative Atezolizumab Plus Fluorouracil, Leucovorin, Oxaliplatin, and Docetaxel for Resectable Esophagogastric Cancer: Interim Results From the Randomized, Multicenter, Phase II/III DANTE/IKF-s633 Trial

Authors: Sylvie Lorenzen, MD, Thorsten Oliver Götze, MD, Peter Thuss-Patience, MD, Matthias Biebl, MD, Nils Homann, MD, Michael Schenk, MD, Udo Lindig, MD, ... SHOW ALL ... for the AIO and SAKK Study Working Groups | AUTHORS INFO & AFFILIATIONS

Primary endpoint PFS

Secondary endpoint pTNM, R0 rate, periop. morbidity/mortality), pathological regression and safety

Downsizing favored arm A vs B
(pT0, 23% vs 15%; pN0, 68% vs 54%).
Increases in pathological regression rates were seen, particularly with higher PD-L1 expression.

Path. regression by PD-L1 expression and MSI status for arms A vs B.

Path. reg. for arms A vs B	Local assessment		Central assessment*	
	TRG1a	TRG1a/b	TRG1a	TRG1a/b
All pts (n=295)	24% vs 15%	48% vs 39%	25% vs 24%	49% vs 44%
PD-L1 CPS ≥1 (n=146)	26% vs 16%	53% vs 49%	27% vs 25%	54% vs 50%
PD-L1 CPS ≥5 (n=67)	30% vs 24%	58% vs 47%	36% vs 27%	55% vs 50%
PD-L1 CPS ≥10 (n=45)	38% vs 14%	71% vs 38%	46% vs 24%	71% vs 52%
MSI high (n=25)	50% vs 27%	70% vs 47%	50% vs 27%	70% vs 47%

Lorenzen S et al. *J Clin Oncol* (2023)

Esophagus and GOJ | 2023 highlights: KEYNOTE 585

Aim

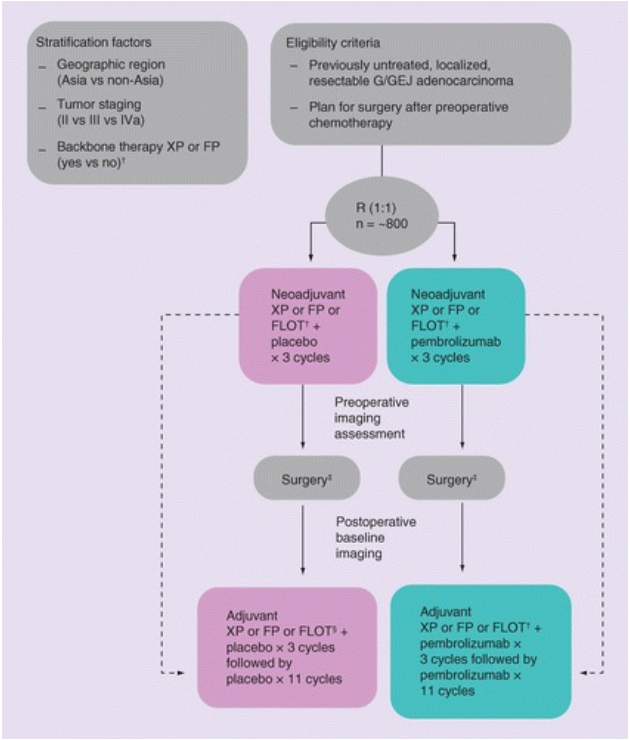
Global, multicenter, randomized, double-blind, Phase III KEYNOTE-585 study to evaluate the efficacy and safety of

pembrolizumab plus chemotherapy
compared with
placebo plus chemotherapy

as neoadjuvant/adjuvant treatment for localized gastric or gastroesophageal junction adenocarcinoma.

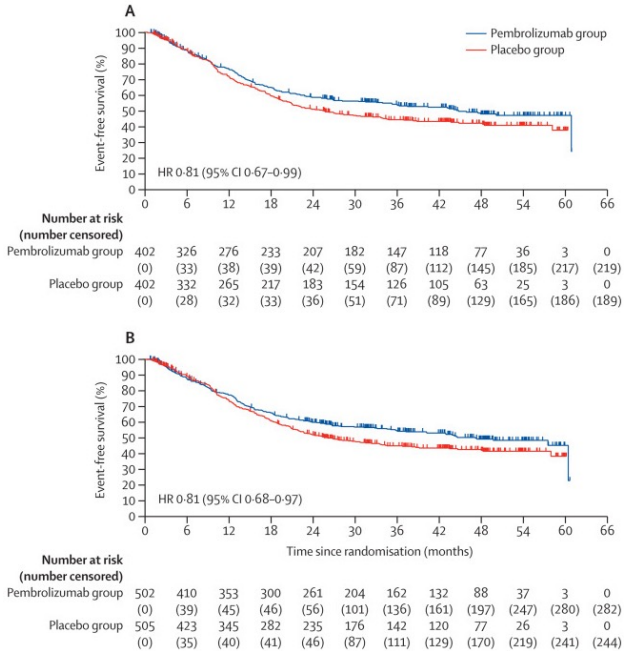
Primary endpoints OS, event-free survival (EFS) and pCR

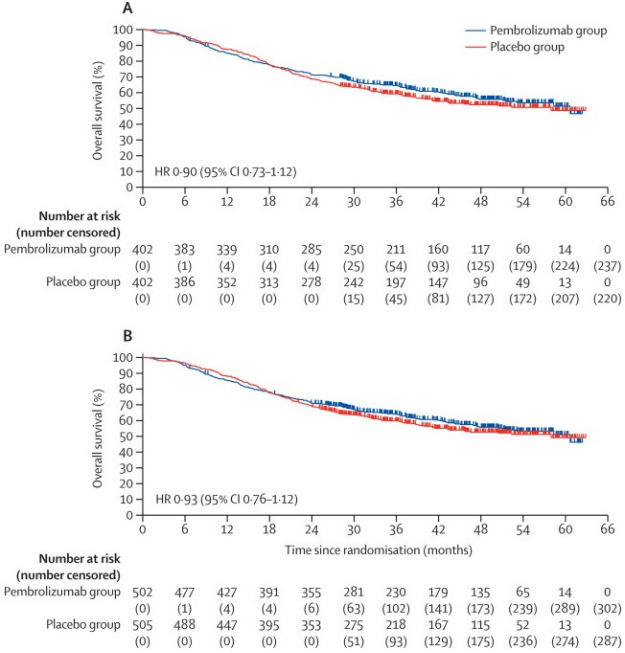
Secondary endpoints safety and tolerability and DFS



Shitara K et al. *Lancet Oncol.* (2023)

Esophagus and GOJ | 2023 highlights: KEYNOTE 585





1254 patients

- Higher pCR with pembro
- No difference in 2 years EFS or OS

Comments

- pCR not surrogate for survival
- Cisplatin rather than FLOT

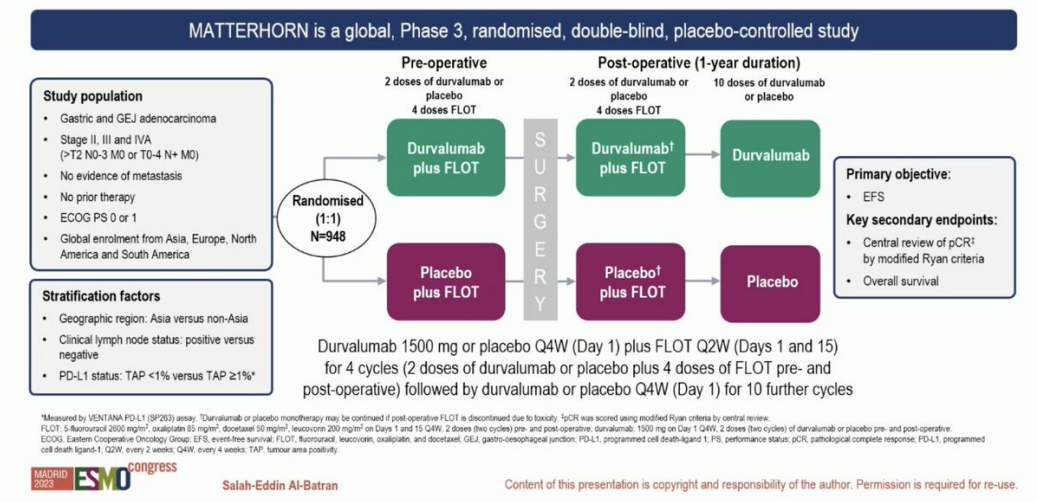
Shitara K et al. *Lancet Oncol.* (2023)

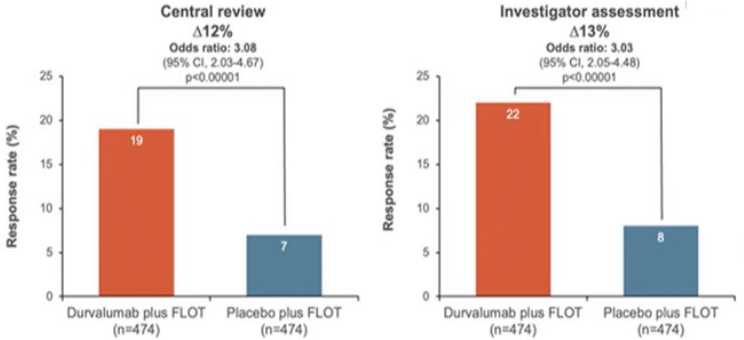
Esophagus and GOJ | 2023 highlights: future studies

5) What we are waiting for IO in the immediate future?

MATTERHORN trial

Phase III study investigating the efficacy and safety of **neoadjuvant-adjuvant durvalumab and FLOT** chemotherapy followed by **adjuvant durvalumab monotherapy** in patients with resectable gastric/gastroesophageal junction cancer





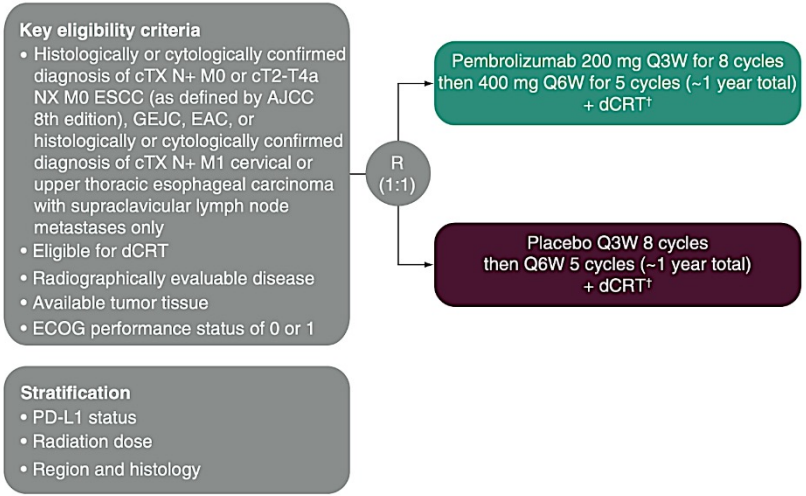
Interim analysis @ ESMO 2023

Janjigian Y et al. *Future Oncol.* (2022)

Esophagus and GOJ | 2023 highlights: future studies

KEYNOTE-975

Phase III study of **definitive chemoradiotherapy plus pembrolizumab** in patients with esophageal carcinoma



Executive summary

- A substantial proportion of patients with locally advanced nonmetastatic esophageal cancer are ineligible for curative surgery at presentation.
- In these patients, definitive chemoradiotherapy is the recommended first-line treatment option, but survival outcomes associated with this treatment modality are poor.

Background & rationale

- In the esophageal cohort of the Phase Ib KEYNOTE-028 trial, pembrolizumab was associated with durable antitumor activity and a manageable safety profile in heavily pretreated, PD-L1+ advanced esophageal carcinoma.
- Preliminary findings from the Phase II KEYNOTE-180 and Phase III KEYNOTE-181 trials in patients with previously treated advanced or metastatic esophageal cancer support the use of pembrolizumab as second- and third-line therapy for patients with PD-L1+ disease.

KEYNOTE-975 study design & eligibility criteria

- KEYNOTE-975 is a double-blind, Phase III randomized placebo-controlled trial that will evaluate the efficacy and safety of pembrolizumab plus definitive chemoradiotherapy versus placebo plus definitive chemoradiotherapy as first-line treatment of patients with locally advanced, unresectable esophageal cancer.
- Approximately 600 patients with previously untreated, locally advanced, unresectable esophageal squamous cell carcinoma, gastroesophageal junction cancer, esophageal adenocarcinoma, or cervical or upper thoracic esophageal carcinoma with supraclavicular lymph node metastases only, who are candidates for definitive chemoradiotherapy, will be enrolled.
- Eligible patients will be randomly assigned 1:1 to receive pembrolizumab or placebo in combination with definitive chemoradiotherapy.

Outcomes

- The dual primary end points are overall survival and event-free survival in all patients, esophageal squamous cell carcinoma patients and patients whose tumors express PD-L1 with a combined positive score ≥10.

Conclusion

- The results of KEYNOTE-975 will help define the role of immunotherapy as a first-line treatment option in patients with esophageal cancer who are not eligible for curative surgery.

Primary endpoints OS, EFS

Secondary endpoints safety and tolerability

Shah MA et al. *Future Oncol.* (2021)

Esophagus and GOJ | 2023 highlights: KEYNOTE 859

6) What about advanced disease?

Pembrolizumab plus chemotherapy versus placebo plus chemotherapy for HER2-negative advanced gastric cancer (KEYNOTE-859): a multicentre, randomised, double-blind, phase 3 trial

Sun Young Rha, Do-Youn Oh, Patricio Yañez, Yuxian Bai, Min-Hee Ryu, Jeeyun Lee, Fernando Rivera, Gustavo Vasconcelos Alves, Marcelo Garrido, Kai-Keen Shiu, Manuel González Fernández, Jin Li, Maeve A Lowery, Timuçin Çil, Felipe Melo Cruz, Shukui Qin, Suxia Luo, Hongming Pan, Zev A Wainberg, Lina Yin, Sonal Bordia, Pooja Bhagia, Lucjan S Wyrwicz, on behalf of the KEYNOTE-859 Investigators*

Aim

To compare the efficacy and safety of **pembrolizumab plus chemotherapy** with **placebo plus chemotherapy** in participants with **locally advanced or metastatic HER2-negative gastric** or **gastro-esophageal junction adenocarcinoma.**

Primary endpoint OS
Secondary endpoints safety and tolerability

Esophagus and GOJ | 2023 highlights: KEYNOTE 859

Participants in the **pembrolizumab plus chemotherapy group** had a **significant and clinically meaningful improvement in overall survival** with manageable toxicity compared with participants in the placebo plus chemotherapy group.

Therefore, pembrolizumab with chemotherapy might be a first-line treatment option for patients with locally advanced or metastatic HER2-negative gastric or gastro-esophageal junction adenocarcinoma.

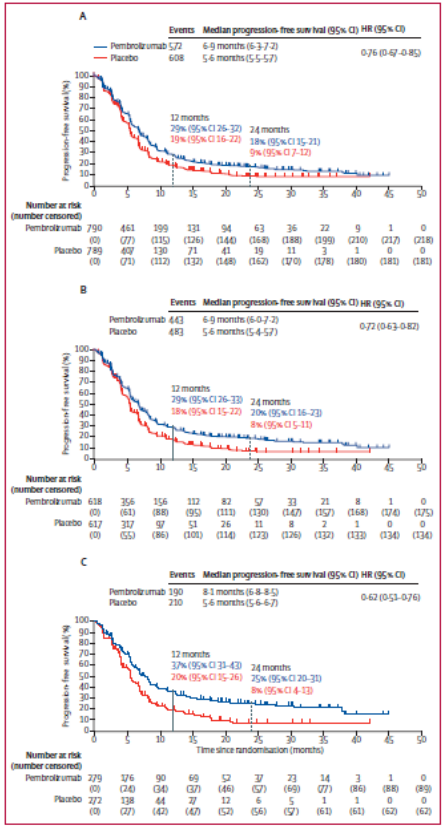


Figure 2: Progression-free survival
Kaplan-Meier estimates of progression-free survival in the ITT population (A), in participants with PD-L1 CPS of 1 or higher (B), and in participants with PD-L1 CPS of 10 or higher (C). ITT=intention-to-treat.

Rha SY et al. *Lancet Oncol.* (2023)

Esophagus and GOJ | 2023 highlights: Oligometastatic

ASCO Daily News

Clinical News From the American Society of Clinical Oncology

Exploring Treatment Paradigms in Oligometastatic Esophagogastric Adenocarcinoma

January 11, 2024

Newton Hurst, MD, PhD, and Nataliya V. Uboha, MD, PhD

> Multiple reports suggest that a subset of patients with EGA who have limited burden of metastatic disease may benefit from more aggressive treatments

The Role of Noninvasive Locoregional Therapies

Surgical approaches are inherently associated with morbidity, risks for complications, and requirements for prolonged breaks in systemic therapy. Noninvasive locoregional therapies may hold additional promise for EGA and may be appropriate for a larger fraction of patients. Stereotactic radiotherapy and hypofractionated ablative radiation therapy result in excellent local tumor control with low toxicities.[1] MRI-guided radiation techniques allow for precise tumor targeting while sparing other organs from radiation-associated toxicities.[2] Moreover, synergism between radiation and immunotherapy agents, which are now part of standard EGA treatment, has further fueled interest in these approaches.[17]

Esophagus and GOJ | 2023 highlights: ESO-Shanghai 13

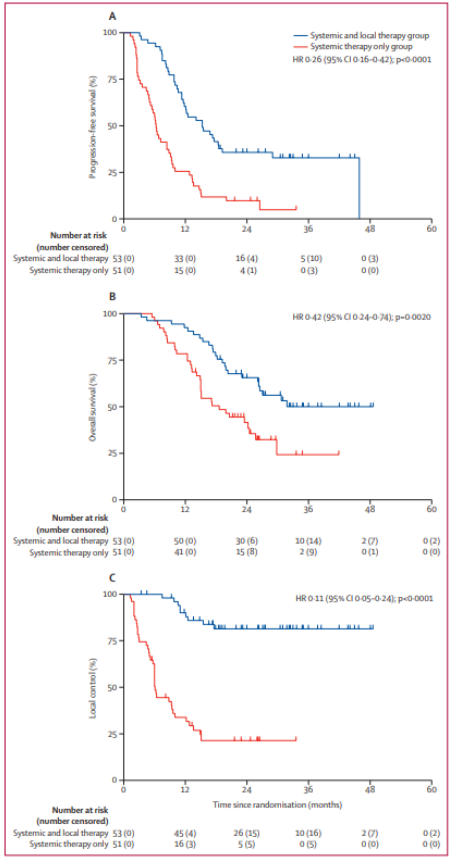
Systemic therapy with or without local intervention for oligometastatic oesophageal squamous cell carcinoma (ESO-Shanghai 13): an open-label, randomised, phase 2 trial

Qi Liu, Junqiang Chen, Yu Lin, Jinjun Ye, Wenbin Shen, Honglei Luo, Baosheng Li, Wei Huang, Shihong Wei, Jibin Song, Yaohui Wang, Huanjun Yang, Songtao Lai, Hongcheng Zhu, Dashan Ai, Yun Chen, Jiaying Deng, Shengnan Hao, Kuaile Zhao

Primary aim To assess the efficacy of local plus systemic therapy compared with systemic therapy alone in patients with oligometastatic oesophageal squamous cell carcinoma.

104 pts enrolled (1-4 M), no ≥ G3 tox

The **addition of local treatment for metastases** could **significantly improve progression-free survival (+8/9m)** among patients with **oligometastatic oesophageal squamous cell carcinoma** being treated with systemic therapy



PFS

OS

LC

Esophagus and GOJ | 2023 highlights: selected guidelines

Practical Radiation Oncology® (2024) 14, 28–46

Clinical Practice Guideline

The Society of Thoracic Surgeons/American Society for Radiation Oncology Updated Clinical Practice Guidelines on Multimodality Therapy for Locally Advanced Cancer of the Esophagus or Gastroesophageal Junction

Stephanie G. Worrell, MD,[a,*] Karyn A. Goodman, MD,[b] Nasser K. Altorki, MD,[c] Jonathan B. Ashman, MD,[d] Traves D. Crabtree, MD,[e] Jennifer Dorth, MD,[f] Scott Firestone, MS,[g] David H. Harpole, MD,[h] Wayne L. Hofstetter, MD,[i] Theodore S. Hong, MD,[j] Kalie Kissoon, BS,[g] Geoffrey Y. Ku, MD,[k] Daniela Molena, MD,[l] Joel E. Tepper, MD,[m] Thomas J. Watson, MD,[n] Terence Williams, MD, PhD,[o] and Christopher Willett, MD[p]

Pancreas| 2023 highlights: which neoadjuvant therapy?

MADRID 2023 ESMO congress

MADRID SPAIN
20-24 OCTOBER 2023

1) Any news from ongoing NAD trials?

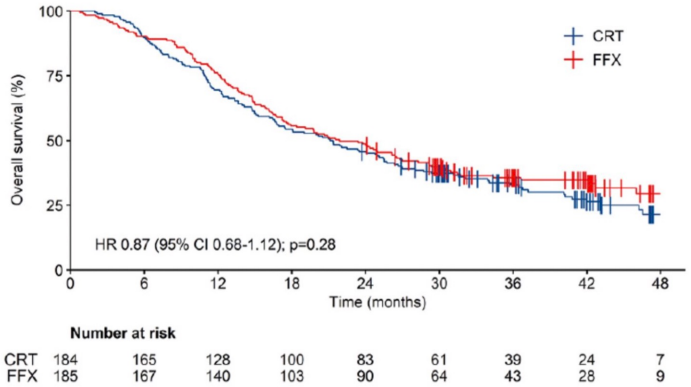
PREOPANC-2

FOLFIRINOX *vs* Gem CRT (36 Gy – 2.4 Gy)

resection rates
77% with FFX arm
75% with CRT arm

FFX did not improved OS compared to nCRT

Overall Survival



Number at risk

CRT	184	165	128	100	83	61	39	24	7
FFX	185	167	140	103	90	64	43	28	9

Median OS	
FFX	21.9 (17.7-27.0)
CRT	21.3 (16.8-25.5)
1-year OS	
FFX	75.7%
CRT	69.6%
2-year OS	
FFX	48.6%
CRT	45.7%
3-year OS	
FFX	35.6%
CRT	32.8%

Pancreas| 2023 highlights: surgery vs NAD therapy

Immediate surgery compared with short-course neoadjuvant gemcitabine plus capecitabine, FOLFIRINOX, or chemoradiotherapy in patients with borderline resectable pancreatic cancer (ESPAC5): a four-arm, multicentre, randomised, phase 2 trial

Paula Ghaneh, Daniel Palmer, Silvia Cicconi, Richard Jackson, Christopher Michael Halloran, Charlotte Rawcliffe, Rajaram Sripadam, Somnath Mukherjee, Zahir Soonawalla, Jonathan Wadsley, Ahmed Al-Mukhtar, Euan Dickson, Janet Graham, Long Jiao, Harpreet S Wasan, Iain S Tait, Andreas Prachalias, Paul Ross, Juan W Valle, Derek A O'Reilly, Bilal Al-Sarireh, Sarah Gwynne, Irfan Ahmed, Kate Connolly, Kein-Long Yim, David Cunningham, Thomas Armstrong, Caroline Archer, Keith Roberts, Yuk Ting Ma, Christoph Springfeld, Christine Tjaden, Thilo Hackert, Markus W Büchler, John P Neoptolemos, for the European Study Group for Pancreatic Cancer

Primary aim

To establish the feasibility and efficacy of three different types of short-course NAD therapy compared with immediate surgery in borderline resectable PC.

Secondary aims

R0, toxicity, complication rate, p.o. mortality, response rate, DFS, LR, OS, QoL

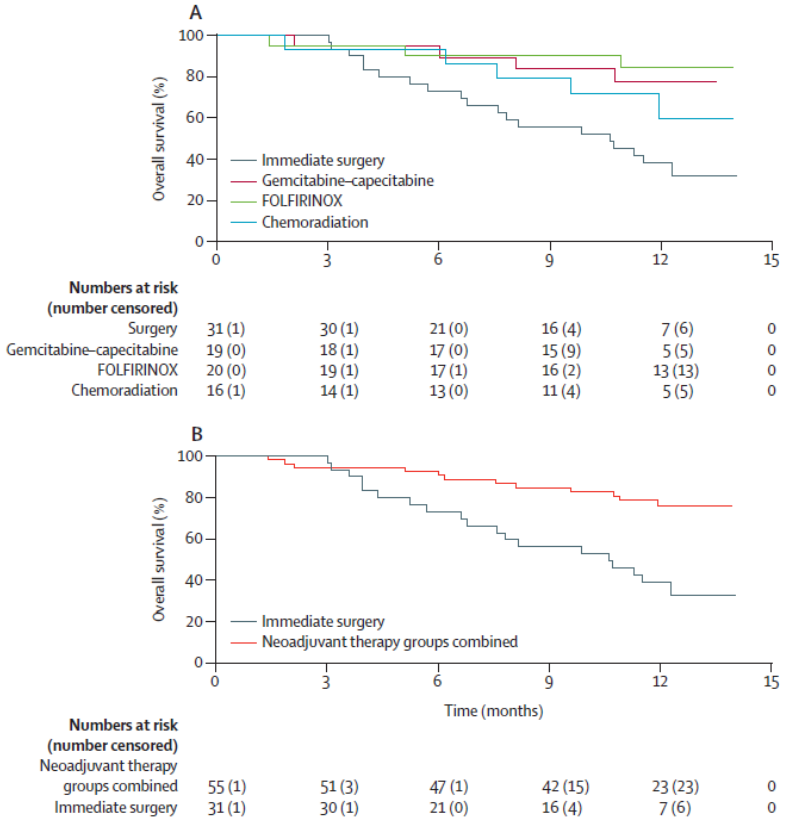
Pancreas| 2023 highlights: surgery vs NAD therapy

Capecitabine based nCRT (50 Gy@1.8 Gy)

1 ys OS

FOLFIRINOX	84%
GEM-CAP	78% (*p*=0.0028)
CAP-CRT	60%

These findings support the use of **short-course neoadjuvant chemotherapy** in patients with **borderline resectable** pancreatic ductal adenocarcinoma.



Ghaneh P et al. *Lancet Gastroenterol Hepatol.* (2023)

Pancreas| 2023 highlights: seen at ESTRO 2023

2) Any news about fractionation choice?

Study	Type	N	Regimen	R0	Median OS (months)
Rajagopalan, 2013	Retrospective	12 (5-LAPC, 7 BRPC)	36/3 fx 24/1 fx	92%	27.4
Shaib, 2016	Prospective	12 8 went to surgery	30-36/5 fx SIB: 36-45/5fx	100%	11.0 (NR for resected)
Mellon, 2016	Retrospective	159 ITT 61 went to surgery	30/5 fx SIB: 50/5 fx	97%	17 (33.5 for resected)
Kharofa, 2019	Prospective	18 ITT 12 went to surgery	33/5 fx or 25/5fx+SIB 33/5fx	92%	21.0 (31 for resected)
Bordeau, 2023	Registry	52 (49-LAPC, 3-BRPC) 20 went to surgery	50/5fx	100%	15.2 (21.6 for resected)

Pre-op SBRT increases R0 resections

ESTRO2023, courtesy of K. Goodman

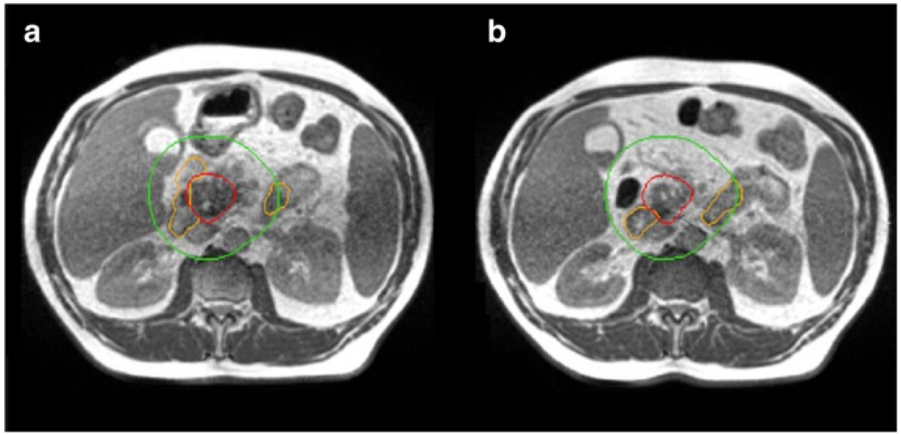
Pancreas| 2023 highlights: new technologies. SMART Trial

3) Any news from new technologies?

CLINICAL INVESTIGATION

A Multi-Institutional Phase 2 Trial of Ablative 5-Fraction Stereotactic Magnetic Resonance-Guided On-Table Adaptive Radiation Therapy for Borderline Resectable and Locally Advanced Pancreatic Cancer

Parag Jitendra Parikh, BSE, MD,* Percy Lee, MD,† Daniel A. Low, PhD,† Joshua Kim, PhD,* Kathryn E. Mittauer, PhD,‡ Michael F. Bassetti, MD, PhD,‖ Carri K. Glide-Hurst, PhD,‖ Ann C. Raldow, MD, MPH,¶ Yingli Yang, PhD,¶ Lorraine Portelance, MD,# Kyle R. Padgett, PhD,# Bassem Zaki, MD,** Rongxiao Zhang, PhD,** Hyun Kim, MD,†† Lauren E. Henke, MD,†† Alex T. Price, MS,†† Joseph D. Mancias, MD, PhD,‡‡ Christopher L. Williams, PhD,‡‡ John Ng, MD,§§ Ryan Pennell, PhD,§§ M. Raphael Pfeffer, MD,‖‖ Daphne Levin, PhD,‖‖ Adam C. Mueller, MD, PhD,¶¶ Karen E. Mooney, PhD,¶¶ Patrick Kelly, MD, PhD,## Amish P. Shah, PhD,## Luca Boldrini, MD, PhD,*** Lorenzo Placidi, PhD,*** Martin Fuss, MD,††† and Michael D. Chuong, MD§



Primary aim

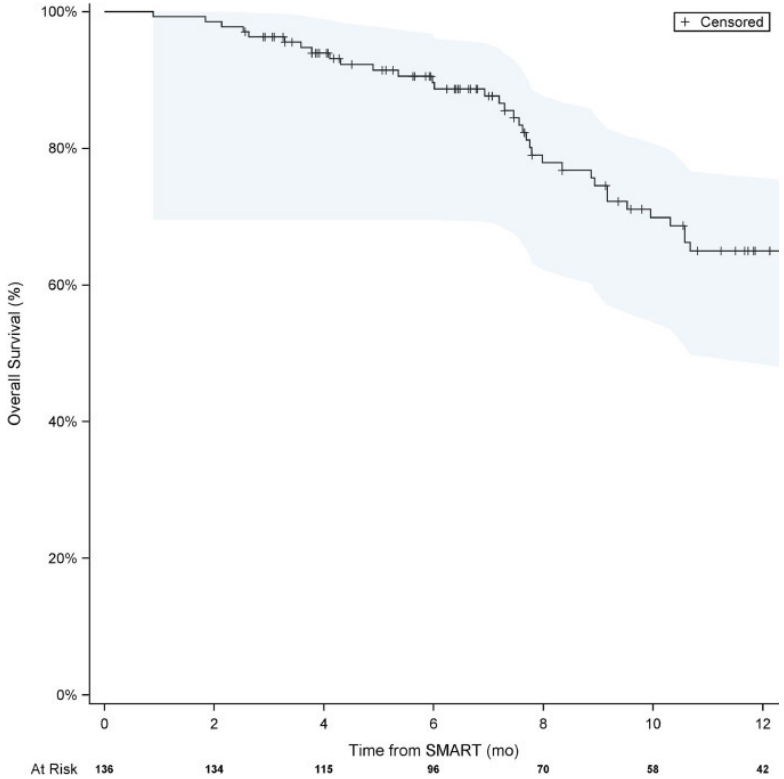
To determine ≥ G3 gastrointestinal toxicity at 90 days for pts with boderline resectable or inoperable LAPC treated with MR-guided on-table adaptive RT and soft tissue tracking with radiation beam gating to 50 Gy in 5 fractions (BED 100 Gy)

Secondary aims

OS at 12 months; dPFS at 6 months; QoL 3 and 12 months post-RT

Parikh PJ et al *Int J Radiat Oncol Biol Phys.* (2023)

Pancreas| 2023 highlights: new technologies. SMART Trial



Results

13 centers

136 enrolled patients

median FUP 8.8 months from SMART

no ≥ G3 tox

From SMART

OS 65%

dPFS 50.6%

LC 82.9%

From diagnosis

OS 93.9%

dPFS 80.1%

LC 90%

32.4% pts got surgery after RT

Parikh PJ et al *Int J Radiat Oncol Biol Phys.* (2023)

Pancreas| 2023 highlights: new technologies

Original Article

Stereotactic MR-guided on-table adaptive radiation therapy (SMART) for borderline resectable and locally advanced pancreatic cancer: A multi-center, open-label phase 2 study

Michael D. Chuong [a,*], Percy Lee [b], Daniel A. Low [c], Joshua Kim [d], Kathryn E. Mittauer [a], Michael F. Bassetti [e], Carri K. Glide-Hurst [e], Ann C. Raldow [f], Yingli Yang [f], Lorraine Portelance [g], Kyle R. Padgett [g], Bassem Zaki [h], Rongxiao Zhang [h], Hyun Kim [i], Lauren E. Henke [i], Alex T. Price [i], Joseph D. Mancias [j], Christopher L. Williams [j], John Ng [k], Ryan Pennell [k], M. Raphael Pfeffer [l], Daphne Levin [l], Adam C. Mueller [m], Karen E. Mooney [m], Patrick Kelly [n], Amish P. Shah [n], Luca Boldrini [o], Lorenzo Placidi [o], Martin Fuss [p], Parag Jitendra Parikh [d]

Primary aim

To evaluate safety and efficacy of ablative stereotactic magnetic resonance (MR)-guided adaptive radiation therapy (SMART) for borderline resectable (BRPC) and locally advanced pancreas cancer (LAPC) on SMART trial patients

Secondary aims

2y OS after PDAC diagnosis; 6m DPFS after SMART; QoL at 3 and 12 months after SMART.

Chuong MD et al *Radiother Oncol* (2023)

Pancreas| 2023 highlights: new technologies

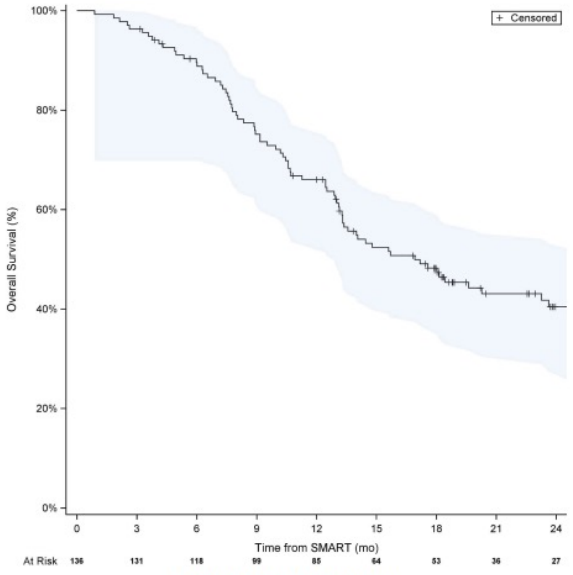


Fig. 2b. Overall Survival from SMART.

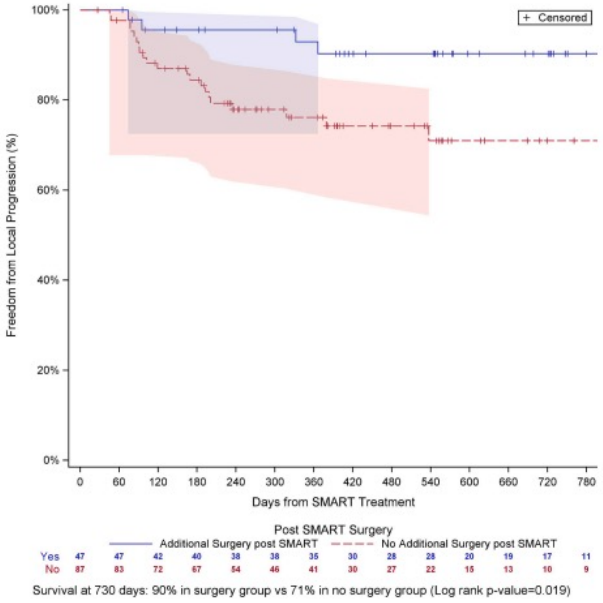


Fig. 2f. Resected Patients vs Non-Resected Patients Local Control from SMART.

LAPC 56.6%
BRPC 43.4%
Median FUP 14.9 months from SMART
22.9 months from diagnosis

From SMART
2yOS 40.5% (67% resected)

From diagnosis
2yOS 53.6%

Late G3 toxicities
0% definitely
4.6% probably
11.5% possibly

34.6% pts got surgery after RT

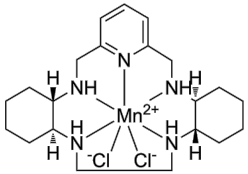
Pancreas| 2023 highlights: new drugs

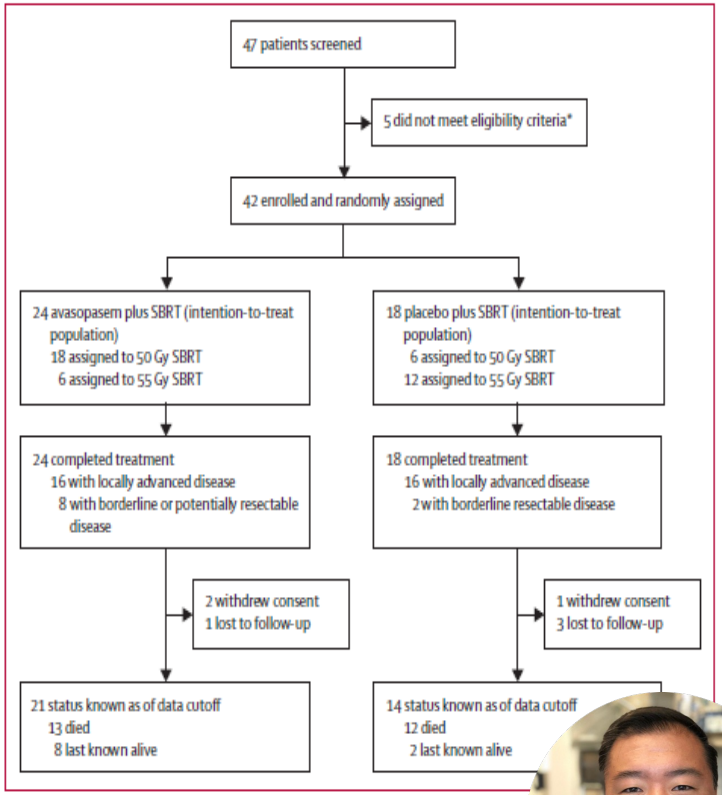
3) Any news from pharma?

Stereotactic body radiotherapy with or without selective dismutase mimetic in pancreatic adenocarcinoma: an adaptive, randomised, double-blind, placebo-controlled, phase 1b/2 trial

Cullen M Taniguchi, Jessica M Frakes, Todd A Aguilera, Manisha Palta, Brian Czito, Manoop S Bhutani, Lauren E Colbert, Joseph Abi Jaoude, Vincent Bernard, Shubham Pant, Ching-Wei D Tzeng, Dae Won Kim, Mokenge Malafa, James Costello, Geena Mathew, Neal Rebueno, Eugene J Koay, Prajnan Das, Ethan B Ludmir, Matthew H G Katz, Robert A Wolff, Sam Beddar, Gabriel O Sawakuchi, Shalini Moningi, Rebecca S Slack Tidwell, Ying Yuan, Peter F Thall, Robert A Beardsley, Jon Holmlund, Joseph M Herman, Sarah E Hoffe

Avasopasem (AVA) superoxide dismutase mimetic





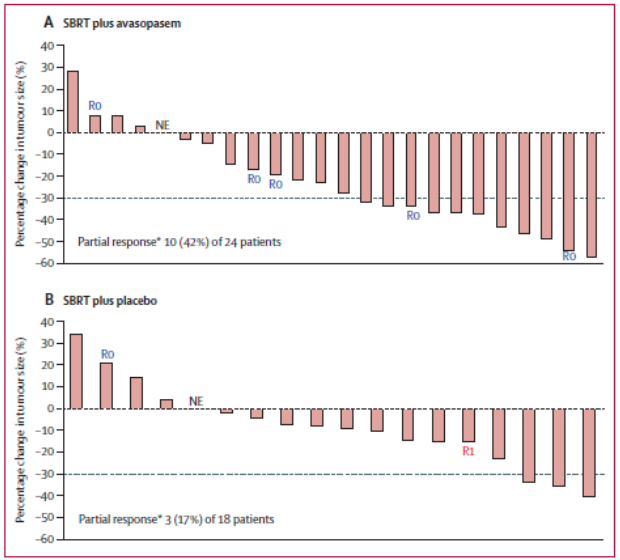
Primary endpoints optimal dose of SBRT with Avasopasem or placebo: efficacy and >G3 tox

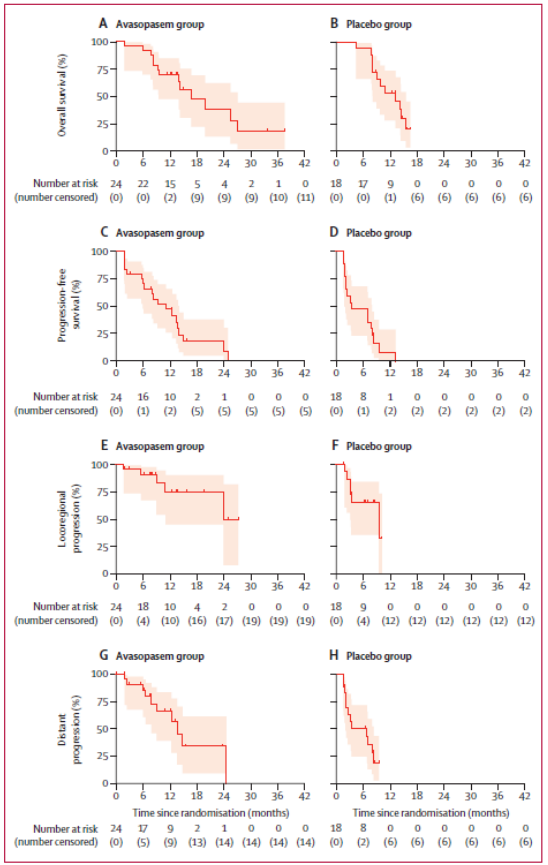
Secondary endpoints PFS, OS, toxicity 1y

Pancreas| 2023 highlights: new drugs

SBRT that uses at least 50 Gy in five fractions can be considered for patients with BR e LAPC.

The addition of Avasopasem might further enhance disease outcomes.





Thank you for your attention

luca.boldrini@policlinicogemelli.it

A. D'Aviero

A. Romano

G.C. Mattiucci

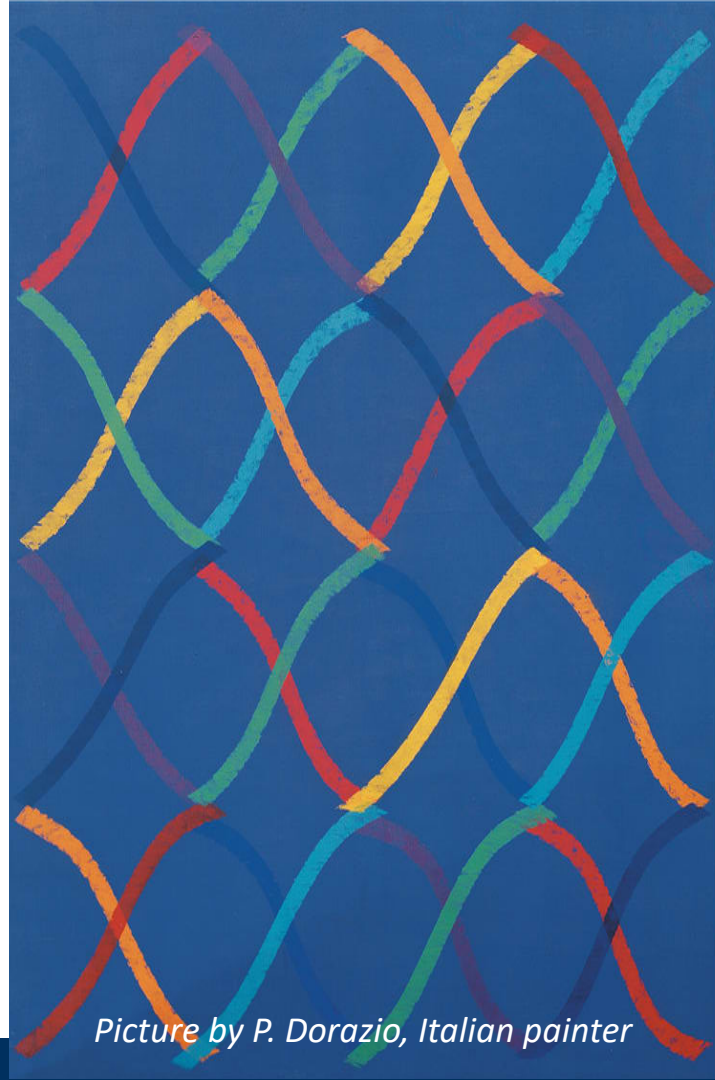
Gemelli

Fondazione Policlinico Universitario Agostino Gemelli IRCCS
Università Cattolica del Sacro Cuore

GSTeP

Gemelli Science and Technology Park

WORLD'S BEST HOSPITALS 2023 Newsweek powered by statista



Picture by P. Dorazio, Italian painter