

Multidisciplinary Program of GI Cancers at Penn

Weijing Sun, MD

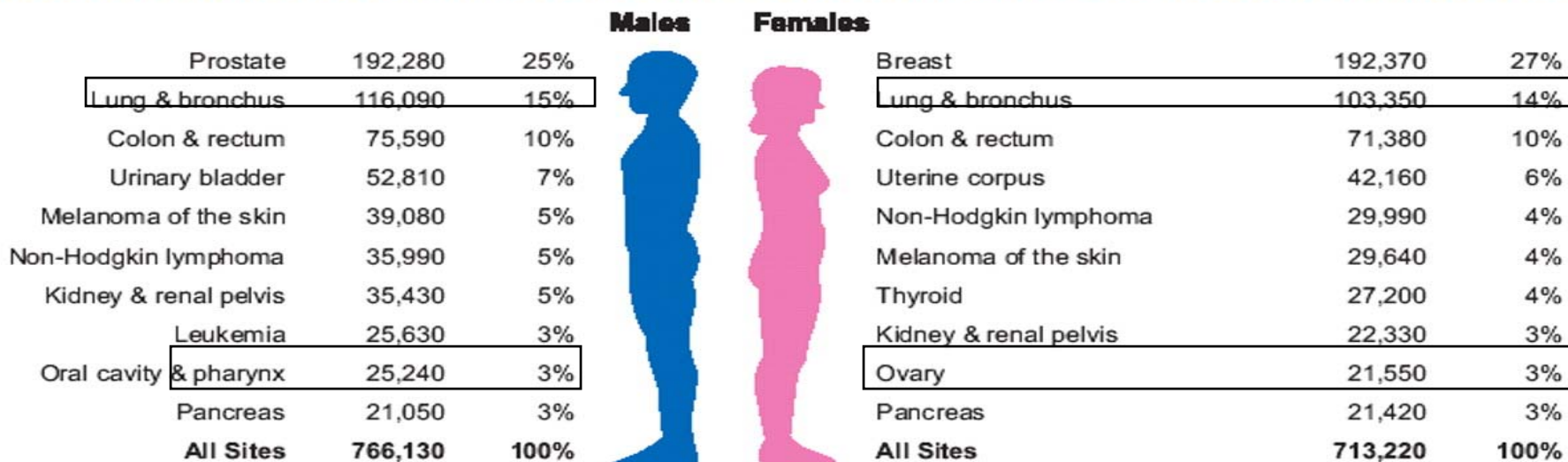
Associate Professor

Director of GI Medical Oncology

Ten Leading Cancer Types in United States, 2009

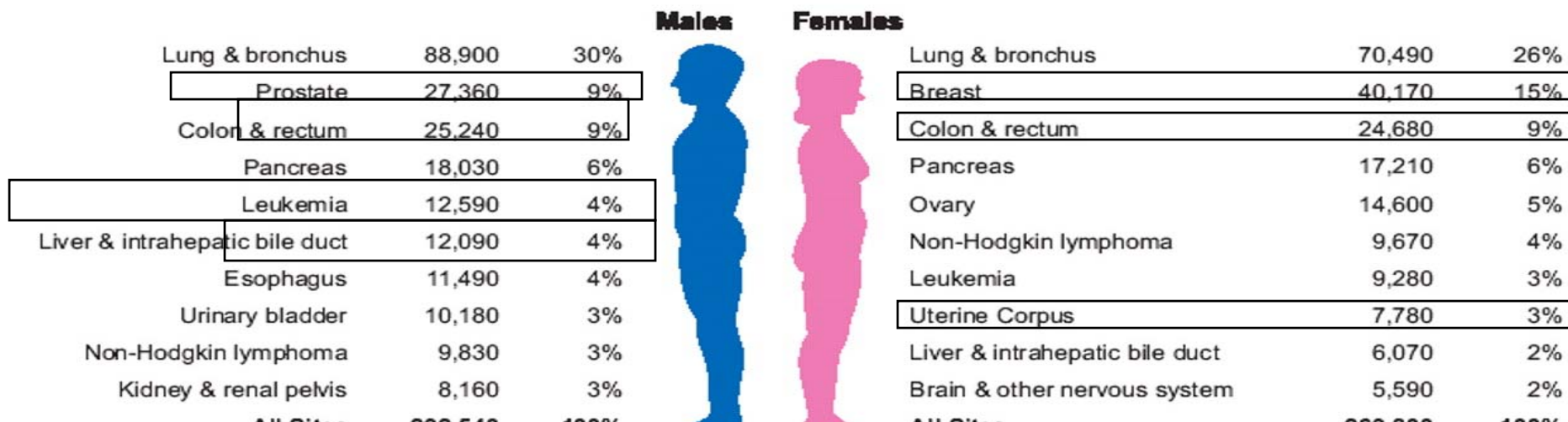
From Jemal, A. et al.
CA Cancer J Clin 2009;

Estimated New Cases*



Estimated Deaths

GI Cancers: 25%

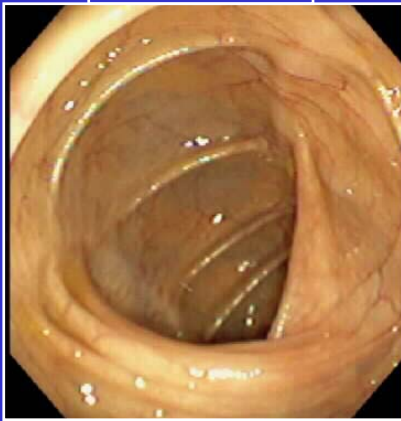


Multidisciplinary in 'Nature'

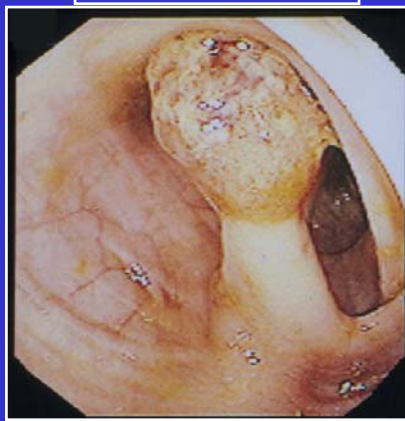
- Early diagnose/detection – the Key for increasing the cure rate
- Experts in all subspecialties -- Necessary for appropriate diagnosis and treatment

Adenoma to Carcinoma Pathway

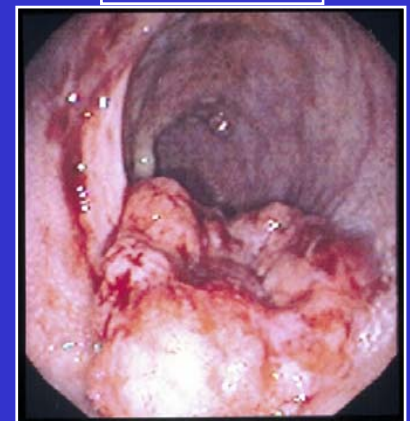
Normal



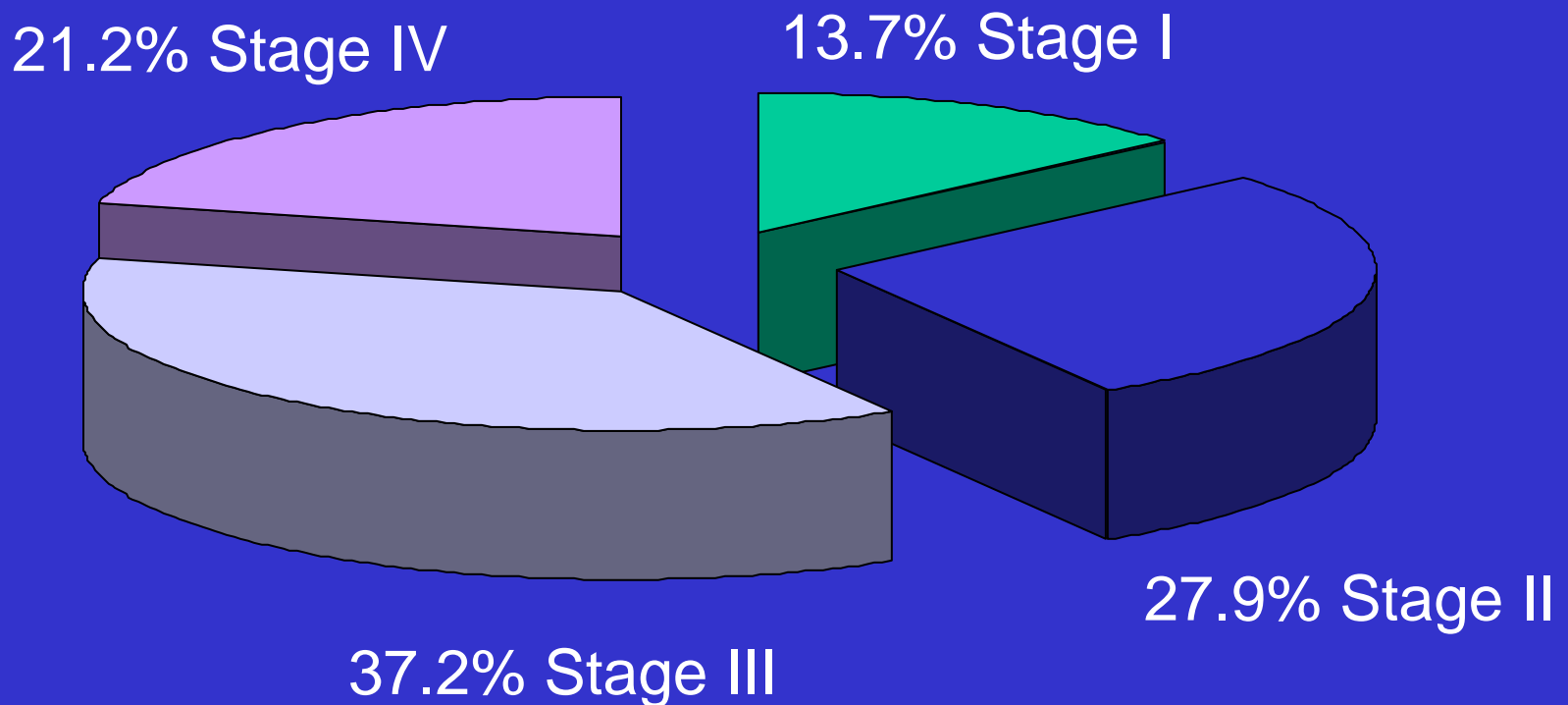
Adenoma



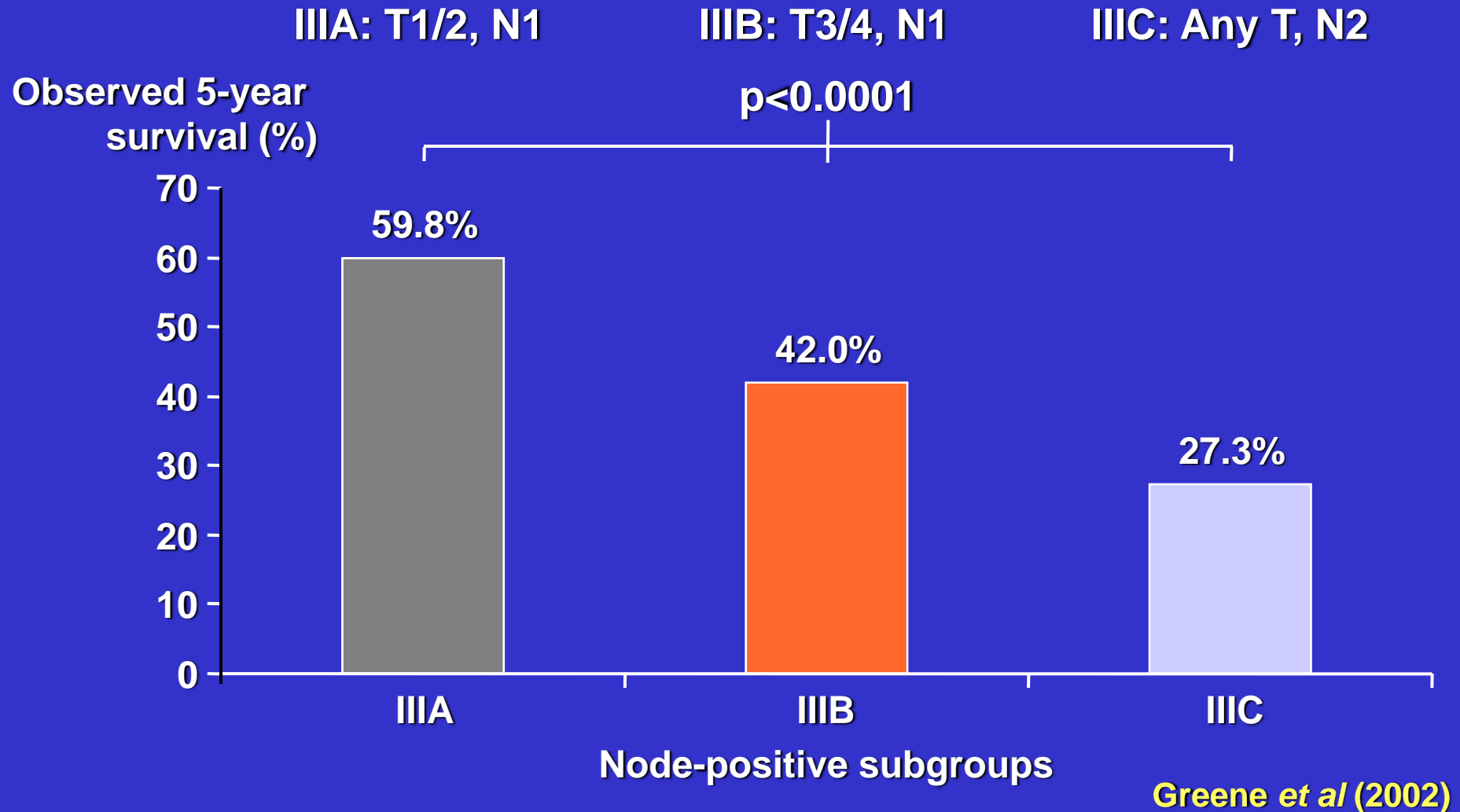
Cancer



CRC Stage at Diagnosis



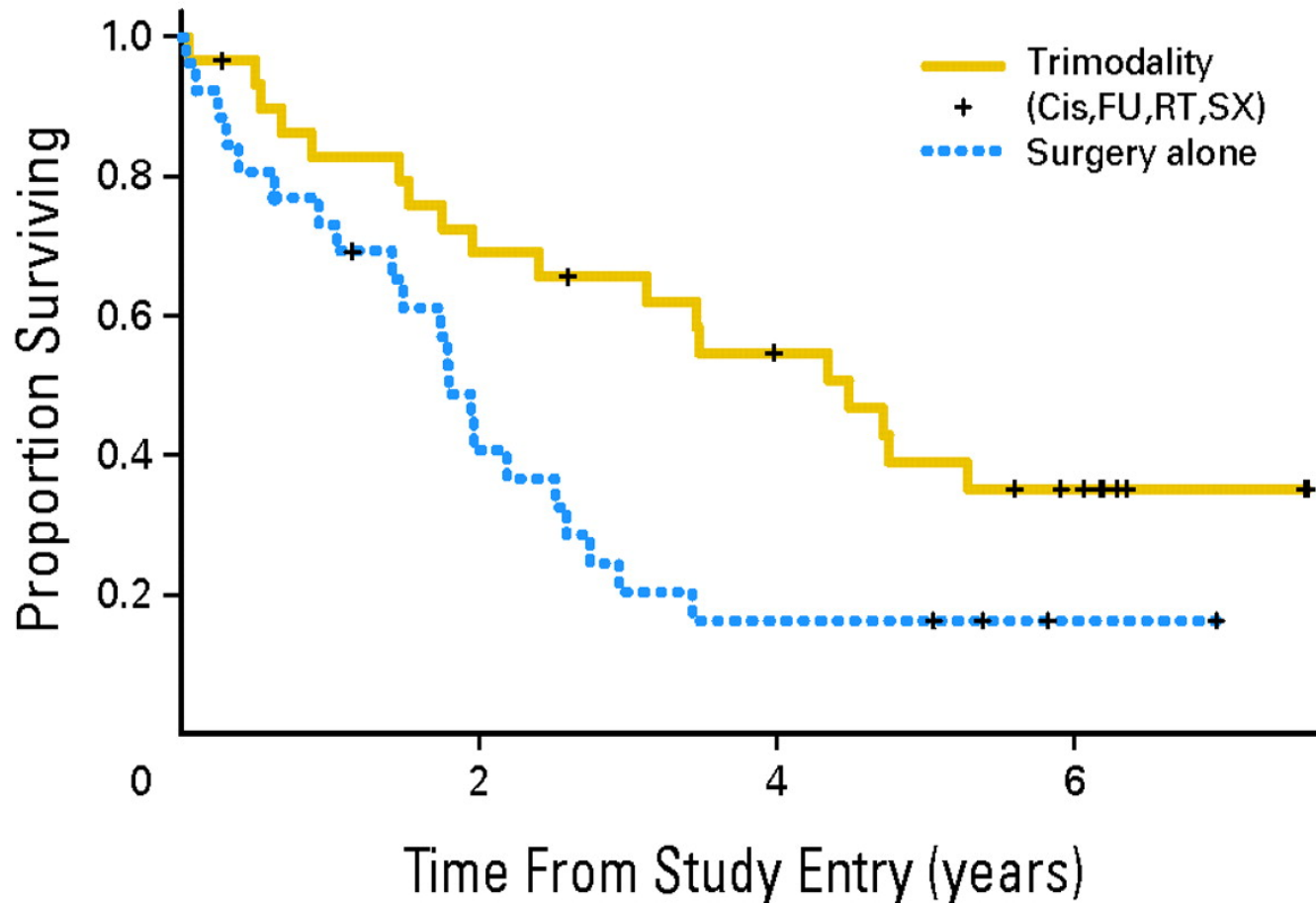
Node-positive TNM classification for Stage III



- Surgery is still the only method for potential cure
- Pathology is the key: right diagnosis – right treatment
- Radiology/images is critical for ‘Staging’

- Pre-operation chemotherapy or chemoradiation increase operation rate, and cure rate, and decrease recurrent rate: **gastric cancer, rectal cancer...**
- Post-operative chemotherapy decrease recurrent rate and increase cure rate: colon cancer, gastric cancer, pancreatic cancer, *esophageal cancer*
- Post-operative chemoradiation decrease recurrent rate and increase cure rate: gastric cancer, rectal cancer, *pancreatic cancer, esophageal cancer*

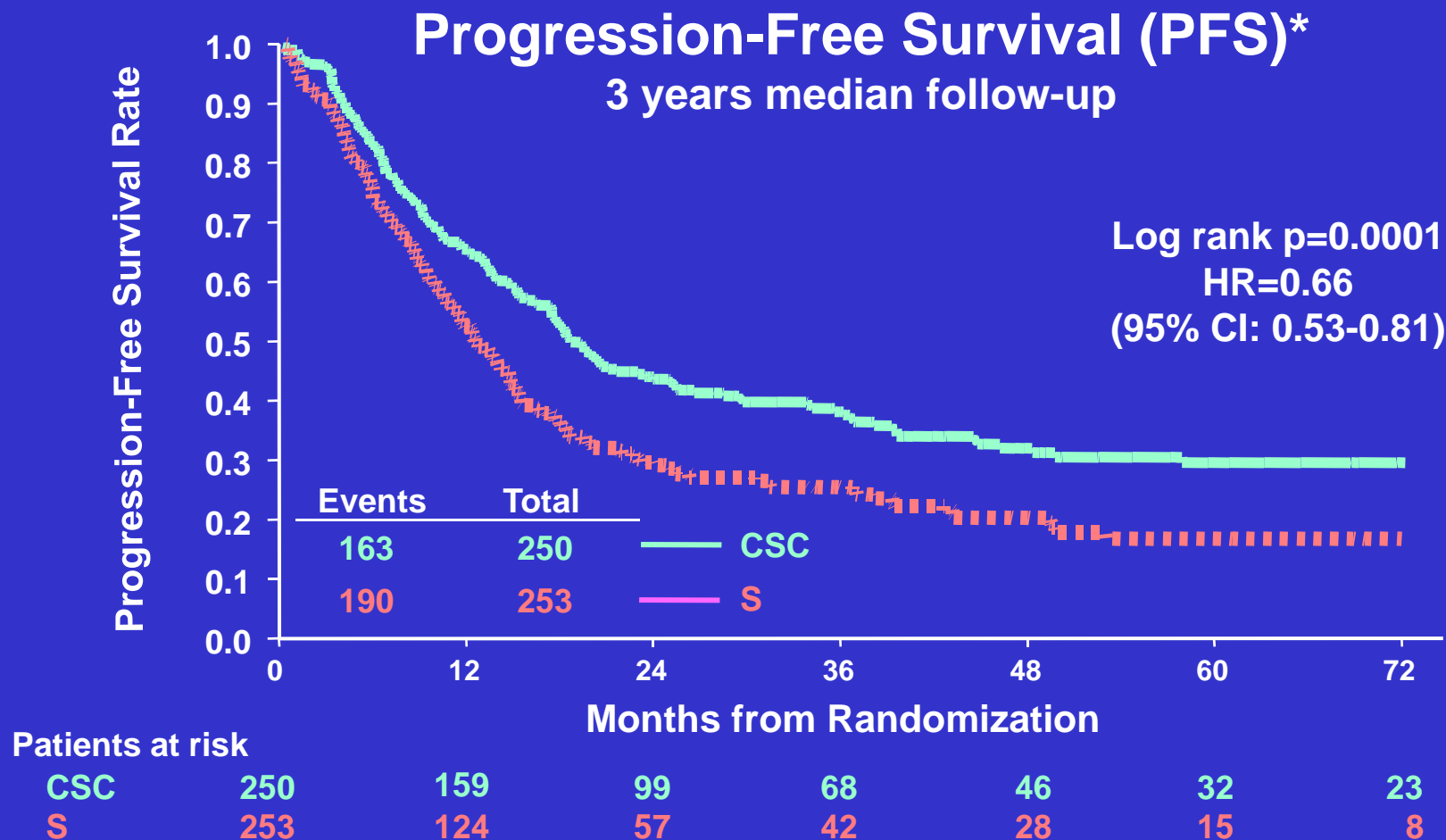
OS by treatment arms



Arm	N	Events	Median (years)	Lower 95% CL	Upper 95% CL*	Exact stratified log-rank P
Trimodality	30	18	4.48	2.40	NE	.002
Surgery	26	21	1.79	1.41	2.59	



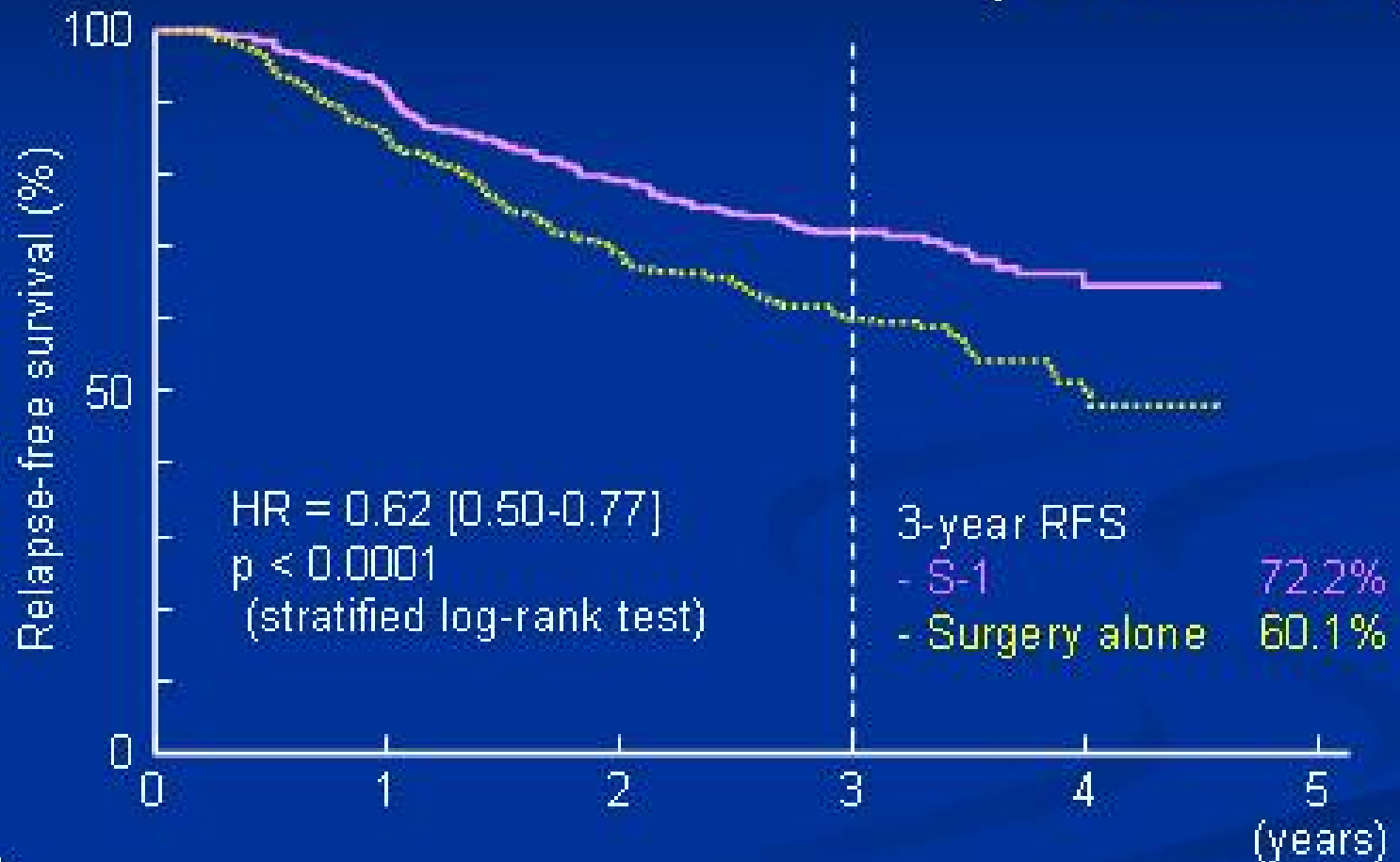
MAGIC Trial: Pre- and Postoperative Chemotherapy



*Included relapse, PD, and death from any cause

Relapse-free survival

(All randomized)

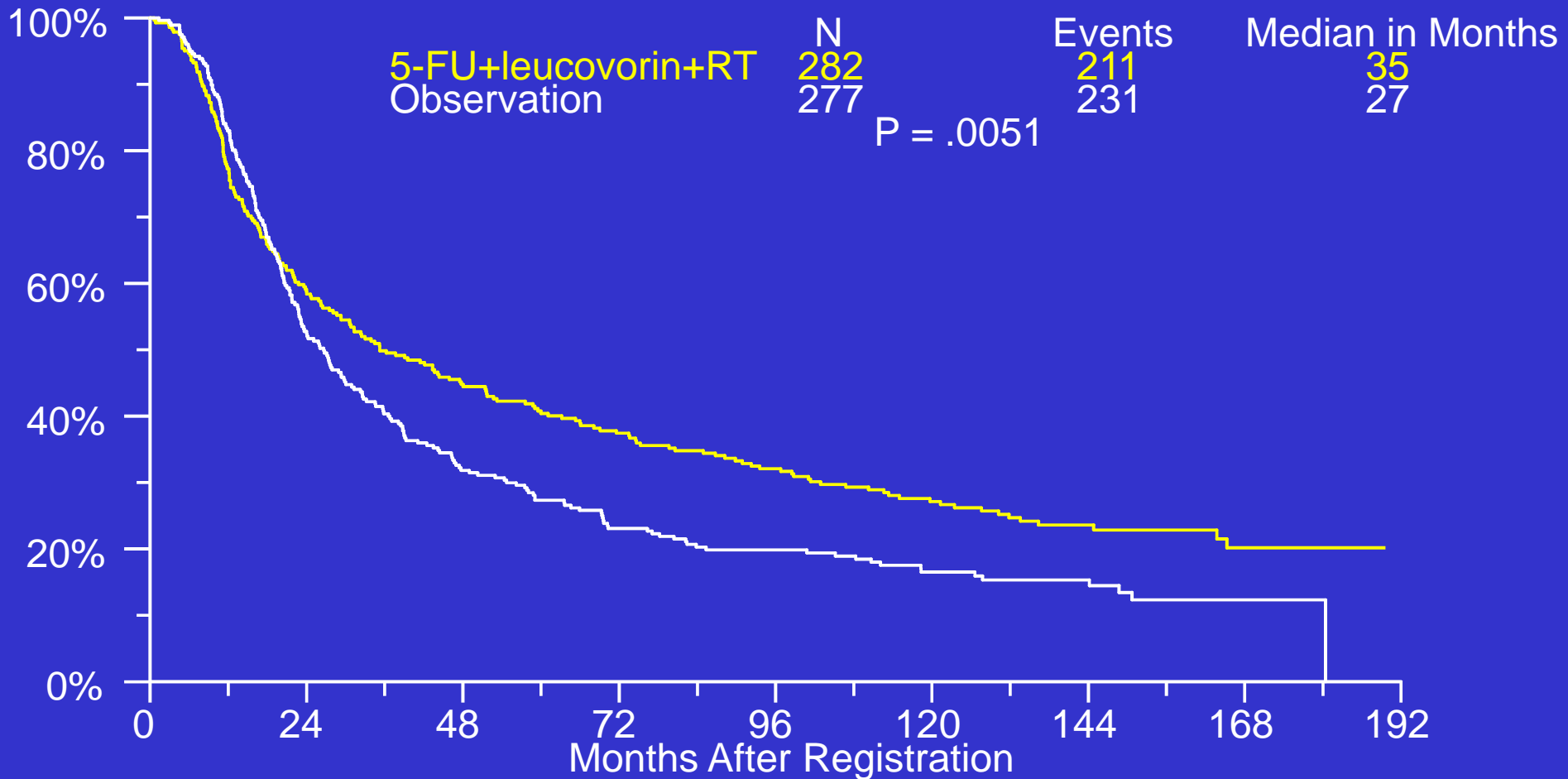


HR = 0.62 [0.50-0.77]
p < 0.0001
(stratified log-rank test)

3-year RFS
- S-1 72.2%
- Surgery alone 60.1%

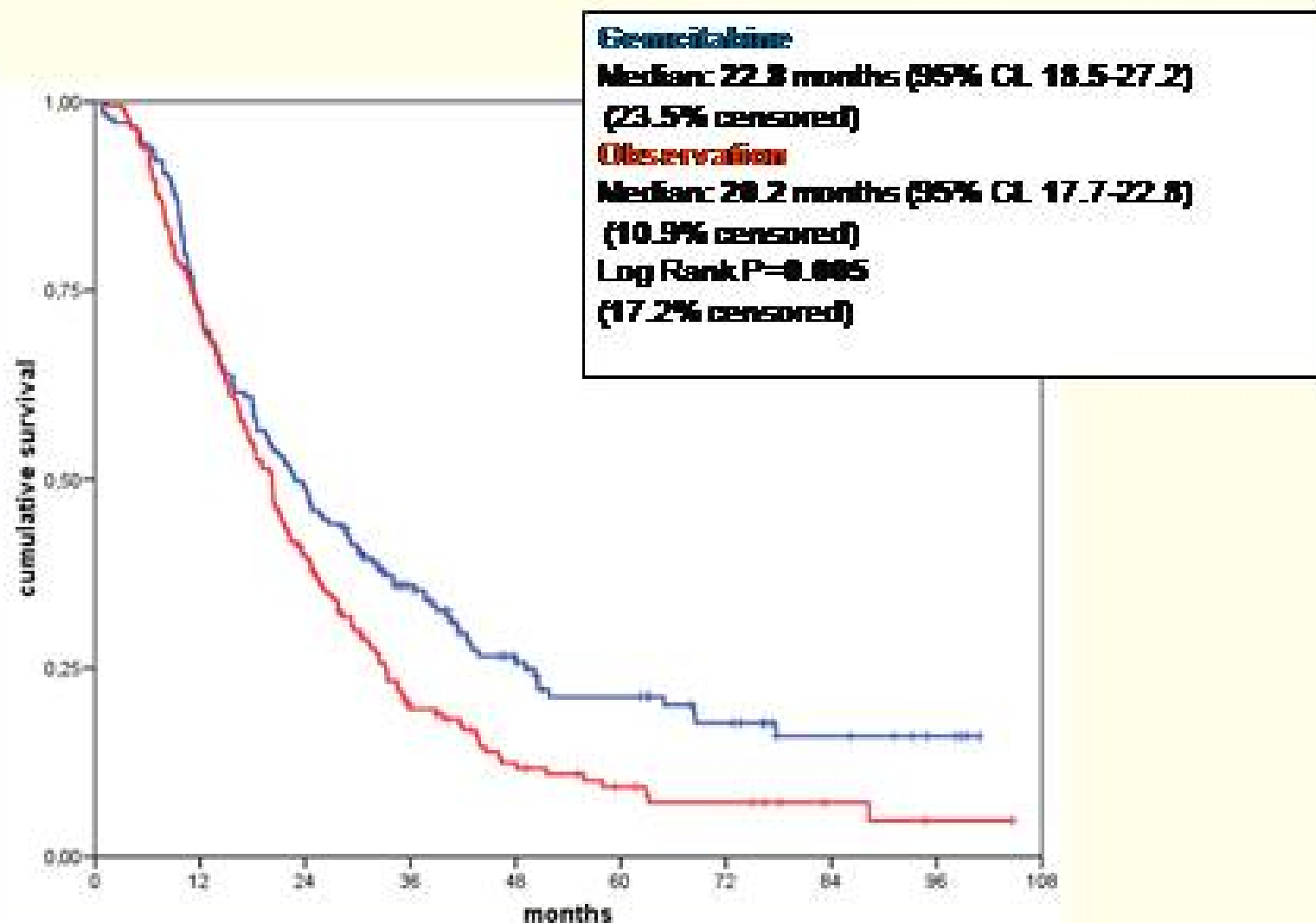
No. at risk	0	1	2	3	4	5
S-1	529	476	322	169	38	
Surgery alone	530	446	285	136	33	

Overall Survival by Treatment Arm



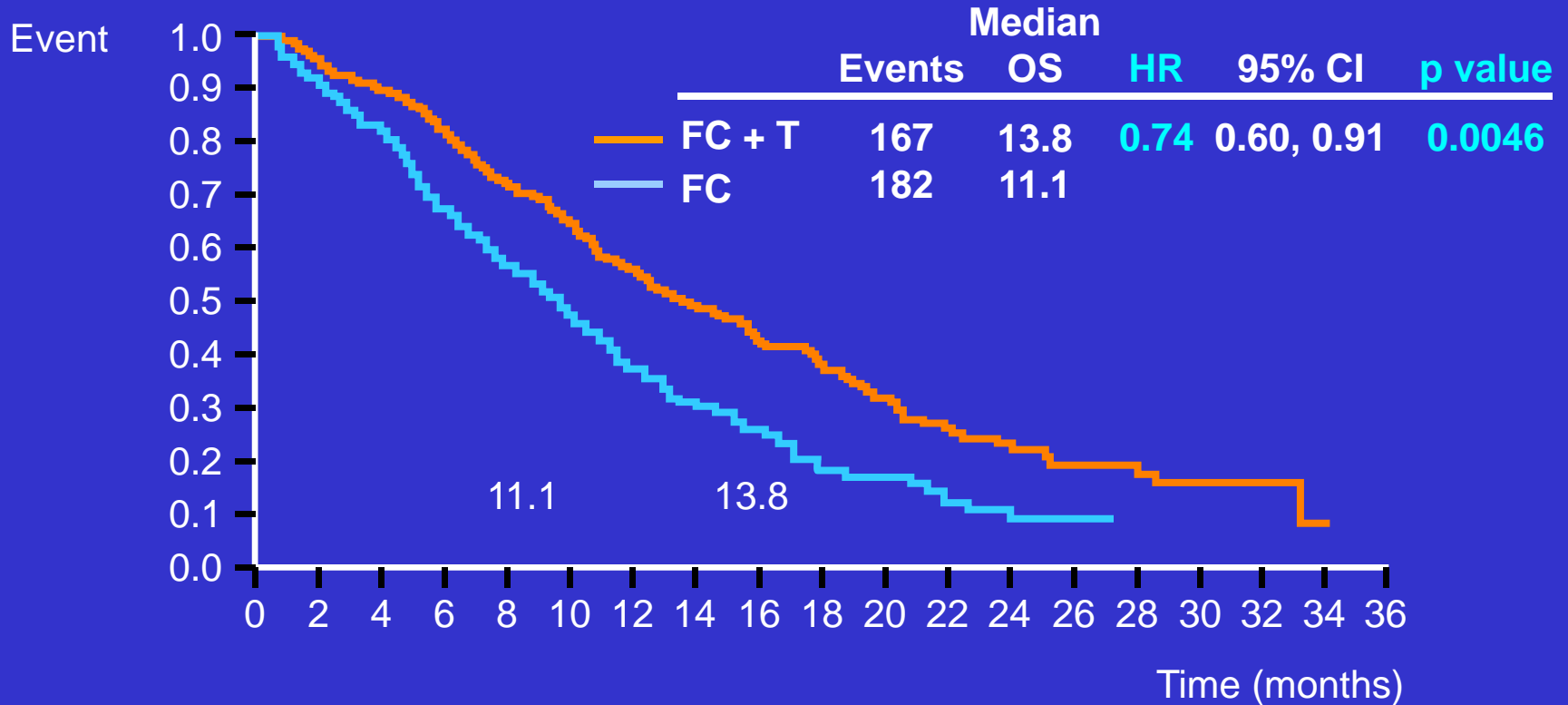
CONKO-001 Overall Survival (OS)

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- Molecular biology directs the therapy
- New therapy and Clinic Research is the hope
- Education is the future
- Supportive care: nutrition support, pain control...
- Coordinating of all specialties

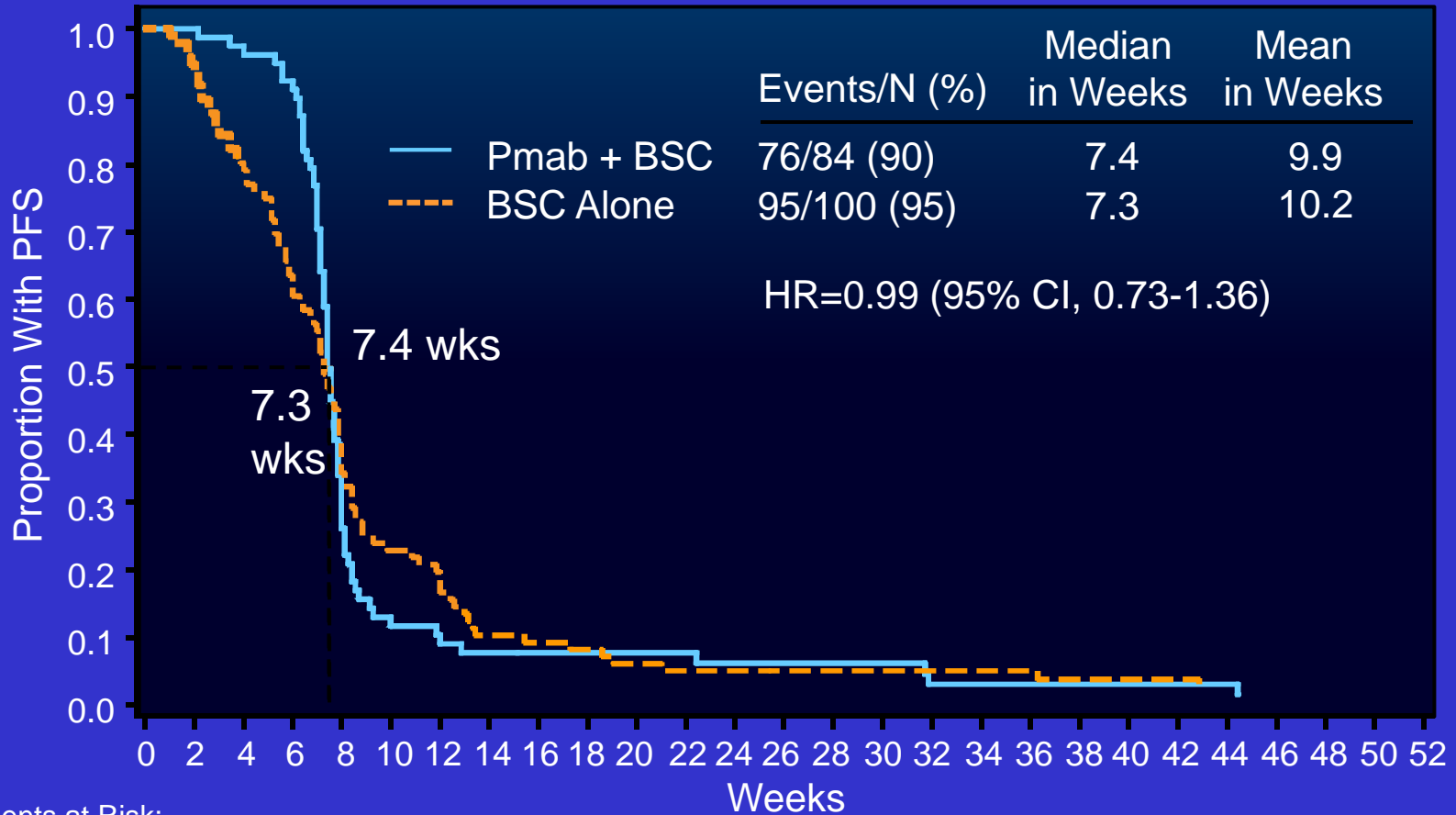
Primary end point: OS



No. at risk	0	2	4	6	8	10	12	14	16	18	20	22	24	26	28	30	32	34	36
FC + T	294	277	246	209	173	147	113	90	71	56	43	30	21	13	12	6	4	1	0
FC	290	266	223	185	143	117	90	64	47	32	24	16	14	7	6	5	0	0	0

T, trastuzumab

Mutant KRAS

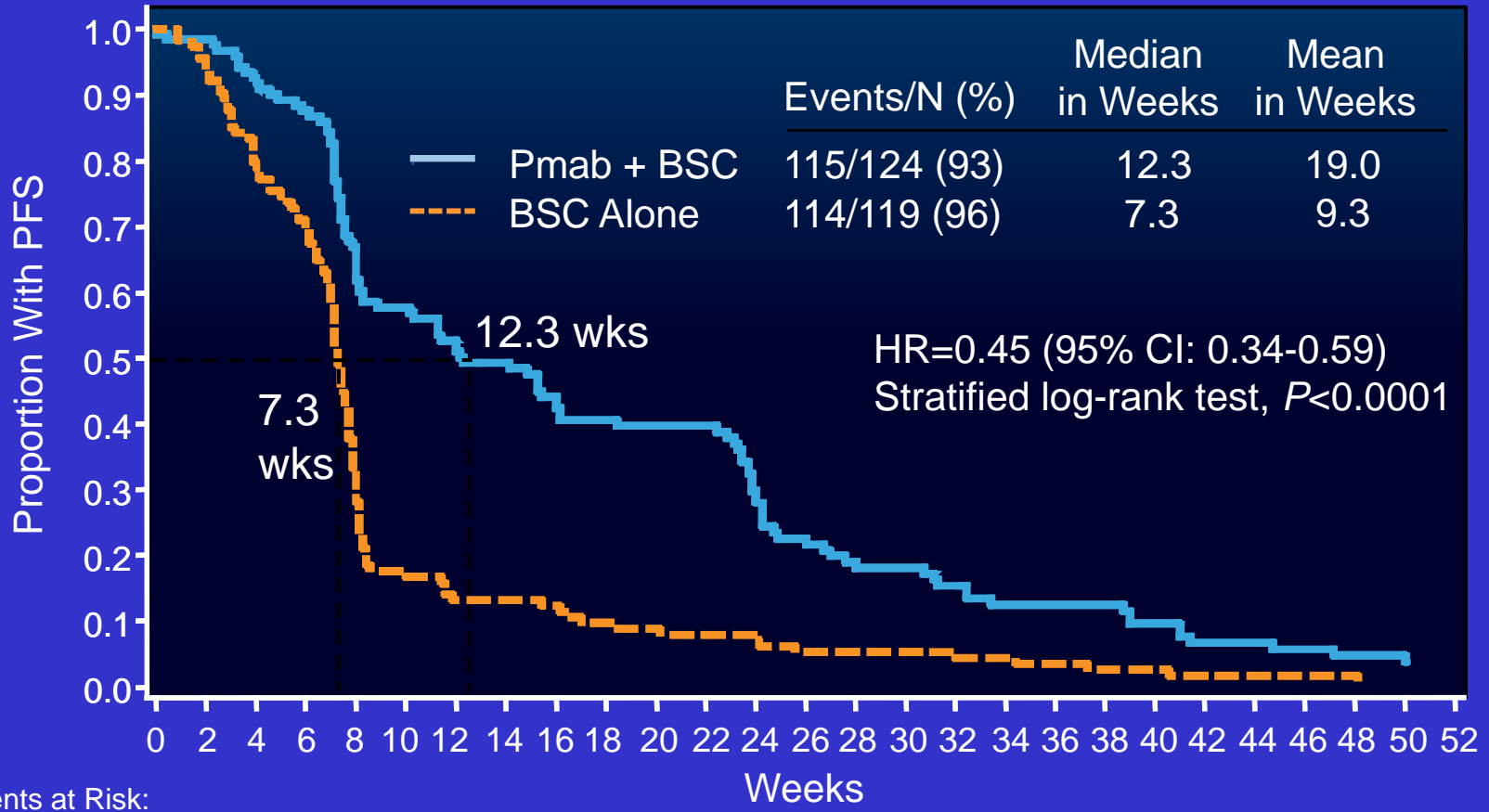


Patients at Risk:

Pmab + BSC	84	78	76	72	26	10	8	6	5	5	5	5	4	4	4	4	2	2	2	2	2	2	2	1	1	1
BSC Alone	100	91	77	61	37	22	19	10	9	8	6	5	5	4	4	4	4	4	4	3	3	3	2	2	2	2

Wild-Type KRAS

$P < 0.0001$ for quantitative-interaction test comparing PFS log-HR (Pmab/BSC) between KRAS groups



Patients at Risk:

Pmab + BSC	124	119	112	106	80	69	63	58	50	45	44	44	33	25	21	20	17	13	13	13	10	7	7	6	5	5
BSC Alone	119	109	91	81	38	20	15	15	14	11	10	9	9	6	6	6	6	5	4	3	3	2	2	2	2	1

Multidisciplinary GI Cancers Program at Penn (MGICP)

- Multidisciplinary GI Cancer Clinic and Conference
 - Time: Wednesday
 - Location: Perelman Center 4th Fl.
 - Medical oncology, radiation oncology, pathology, surgery, gastroenterology, clinical research staff, nutritionist, coordinator
- Multidisciplinary Liver Cancer Program:
 - Friday: Liver surgery (liver transplantation), radiology, medical oncology, interventional radiology, radiation oncology, pathology, gastroenterology, coordinator

Conclusion

- Real time communication
- Best interests for patients
- Direct translation research to clinical practice
- Education for trainees
- Model for all other cancers